



# **Colorado Springs Utilities' Electric Resource Plan: Portfolio H Reduces Pollution While Maintaining Affordability and Reliability**



## ELECTRIC RESOURCE PLANS GUIDE UTILITY INVESTMENTS, HELPING ENSURE AFFORDABLE AND RELIABLE ENERGY

Utilities across the country develop long term electric resource plans (ERPs or resource plans) to provide insights into future utility operations and guide their investments. Electric Resource Plans evaluate the impacts of a host of different factors, including changes in electricity demand, fuel prices, and the ability of existing or new supplies to meet demands. They are also used to evaluate the impact of state and federal policies, such as renewable energy standards, energy efficiency standards, or air quality regulations. As a result of resource plans, utilities typically develop an action plan, which identifies key investments in the next five years; the longer-term resource plan identifies resource needs over a 20 – 30 year period.

## COLORADO SPRINGS UTILITIES WILL FACE NEW POLLUTION REGULATIONS

In Colorado Springs Utilities' current Electric Resource Plan decision, the utility faces two key environmental issues that will play a critical role in determining its short- and long-term investments:

1. **Reducing Ozone Pollution.** Ground-level ozone – the main component of smog – contributes to various respiratory problems like asthma, emphysema, and chronic bronchitis. It forms from air pollutants, including nitrous oxides (NOx), that are emitted from power plants and other sources. The Environmental Protection Agency is under a court order to revise the current ozone standard by October 1, 2015. Under the revised regulation, El Paso County is expected to be out of compliance. The Martin Drake Power Plant, a coal-fired power plant, is the single largest source of NOx in El Paso County. Colorado Springs Utilities will likely have to install new pollution controls on the plant in order to continue operating the plant. These pollution controls are in addition to the NeuStream scrubbers being installed today, and are estimated to cost \$111,414,600 on all three of the plant's units. Across the West, electric utilities have evaluated whether it is more cost effective to install these pollution controls or retire older units and replace that capacity with newer, more efficient facilities. In many cases, utilities have decided it is more cost effective to retire their older, less efficient units.
2. **Reducing Carbon Pollution.** In August, 2015, the federal Environmental Protection Agency released its final Clean Power Plan, which will require states and power plant owners to reduce their carbon pollution. The State of Colorado initiated a stakeholder process to develop a state compliance plan in September of 2015 and will be required to submit a final compliance plan no later than September of 2018. EPA requires states and power plants to begin reducing emissions in 2022. Through its Electric Resource Plan, Colorado Springs Utilities evaluated how different investment portfolios could comply with the Clean Power Plan; in every portfolio under consideration, Colorado Springs Utilities would retire Martin Drake Power Plant Unit 6 (Drake 6) in order to comply, and re-operate or retire Drake 5.

## PORTFOLIOS UNDER EVALUATION WILL DETERMINE UTILITY INVESTMENTS IN RENEWABLE ENERGY, ENERGY EFFICIENCY, AND EXISTING POWER PLANTS

Through an extensive information-gathering process, Colorado Springs Utilities staff developed ten portfolios of different resources and investments to represent possible futures for the Colorado Springs electric system. The ten portfolios display key differences driven by two major factors:

- Levels of renewable energy and energy efficiency investments;
- Actions taken at the coal-fired Drake Power Plant to comply with future federal ozone and carbon regulations, which include installing pollution controls (to address ozone), and retiring or reducing the use of key coal-fired units (to address carbon).

## COLORADO SPRINGS UTILITIES STAFF AND THE CUSTOMER ADVISORY GROUP HAVE FOCUSED ON PORTFOLIO D AND PORTFOLIO H

Table 1 compares and contrasts the two portfolios the Customer Advisory Group and the utility staff have focused on. Colorado Springs Utilities completes a resource plan every 3 – 5 years. Accordingly, the key investments and decisions at play in the current Electric Resource Plan are those that will occur in the next five years. The Electric Resource Plan will also inform whether Colorado Springs Utilities (CSU) begins making investments in pollution controls at Drake 6 in the near term, in order to comply with expected new ozone standards.

Table 1. The key differences between Portfolios D and H fall into two categories: investments in renewable energy and pollution controls at the Martin Drake Power Plant. The current Electric Resource Plan will inform investments for the next five years.

### Portfolio H Affordably Transitions to More Clean Energy Than Portfolio D

	Portfolio D	Portfolio H
<b>Renewable Energy</b>	<ul style="list-style-type: none"> <li>• Acquires 80 MW of solar in the 2016 – 2020 time period.</li> <li>• <u>Under the Clean Power Plan</u>, CSU would install an additional 90 MW of solar in 2031 – 2034.</li> </ul>	<ul style="list-style-type: none"> <li>• Acquires 80 MW of solar in the 2016 – 2020 time period.</li> <li>• <u>Under the Clean Power Plan</u>, CSU would install an additional 170 MW of solar in 2028– 2034.</li> </ul>
<b>Martin Drake Power Plant</b>	<ul style="list-style-type: none"> <li>• Installs pollution controls on Drake 5 in 2018, at a cost of \$2.5 million (Ultra-low NOx burners), and converts the unit to burning gas. Following conversion, the unit will operate approximately 4-7% of the time.</li> <li>• Installs pollution controls on Drake 6 and 7 in 2023, at a cost of \$80,121,000.</li> <li>• <u>Under the Clean Power Plan</u>, CSU would retire Drake 6 in 2023.**</li> </ul>	<ul style="list-style-type: none"> <li>• Retires Drake 5 in 2018</li> <li>• Retires Drake 6 in 2023</li> <li>• Installs pollution controls (SCR) on Drake 7 in 2023 at a cost of \$46,450,800, and retires it in 2029.</li> </ul>
<b>Cost*</b>	Net Present Value, 20 yr period: \$6.44 billion	Net Present Value, 20 yr period: \$6.47 billion (0.5% more expensive than Portfolio D)

\* Costs shown here are for the Clean Power Plan compliant version of each portfolio.

\*\*Under any portfolio in which Drake 6 is retired, power would be replaced with various resources, primarily generation at Colorado Springs Utilities' existing Front Range Power Plant.

## PORTFOLIO H PROVIDES KEY BENEFITS OVER PORTFOLIO D

While Portfolio D and H are similar in the near term, Portfolio H provides important benefits, including:

- **Long-term certainty.** Portfolio H provides a certain path for the utility to comply with the Clean Power Plan and pending ozone regulations. While Portfolio D can be modified to comply with the Clean Power Plan, the portfolio as currently proposed would not be compliant.
- **Near-term avoided costs.** Portfolio H avoids additional investments in pollution controls at Drake 5 (in 2018) and Drake 6 (in 2023). Stakeholders are evaluating an alternative potential path for Drake 5: mothballing the unit, which could allow its use in an emergency, but would avoid pollution control investments in 2018.
- **Public health and environmental benefits.** Portfolio H reduces energy and pollution generated at the Martin Drake Power Plant in downtown Colorado Springs, improving air quality, including reducing ground-level ozone (smog), and would therefore benefit public health.
- **A measured transition.** Most importantly, Portfolio H establishes a plan to transition toward cleaner energy for Colorado Springs. Over the long term, this transition could open up opportunities to re-develop the downtown Martin Drake site and surrounding areas.

Through the Electric Resource Plan process, Colorado Springs Utilities has evaluated many issues. Planning to address key risks and changing regulations while maintaining reliable, affordable electricity is essential. Portfolio H would put the utility in a strong position to comply with federal pollution regulations and transition to cleaner energy, improving public health and the environment. Portfolio H represents a robust portfolio of energy investments for Colorado Springs Utilities and its customers.

**FOR MORE INFORMATION, VISIT [WWW.WESTERNRESOURCEADVOCATES.ORG](http://WWW.WESTERNRESOURCEADVOCATES.ORG)  
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