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Fiscal Note

Drafting Number: LLS 22-0216
Prime Sponsors: Rep. Valdez D.; Woog
Date: February 15, 2022
Bill Status: House Energy & Environment
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Bill Topic: GREEN HYDROGEN TO MEET POLLUTION REDUCTION GOALS

Summary of Fiscal Impact:

<input type="checkbox"/> State Revenue	<input type="checkbox"/> TABOR Refund
<input checked="" type="checkbox"/> State Expenditure	<input checked="" type="checkbox"/> Local Government
<input type="checkbox"/> State Transfer	<input type="checkbox"/> Statutory Public Entity

The bill includes green hydrogen as a renewable energy resource that qualifying retail utilities may use to meet renewable energy standards. It also directs the Colorado Energy Office to update the Greenhouse Gas Pollution Reduction Roadmap. It increases state expenditures in FY 2022-23 and may impact local government expenditures.

Appropriation Summary: No appropriation is required.

Fiscal Note Status: The fiscal note reflects the introduced bill.

Summary of Legislation

The bill includes green hydrogen, defined as hydrogen derived from a clean energy resource as defined in current law, to the list of renewable energy resources qualifying retail utilities may use to meet renewable energy standards. It also requires the Colorado Energy Office to update the Greenhouse Gas Pollution Reduction Roadmap (roadmap) to include green hydrogen.

Background

Ten million metric tons of hydrogen gas are produced in the United States every year, which is used primarily in industrial processes such as oil refining and fertilizer production. Hydrogen gas can also be used to generate electricity, either through direct combustion, or through the use of fuel cells that combine hydrogen and oxygen to produce electricity, water, and small amounts of heat. Hydrogen is considered an alternative vehicle fuel under the Energy Policy Act of 1992, and is used to power fuel-cell electric vehicles.

Most hydrogen produced today in the United States is made through steam-methane reforming, which produces hydrogen from sources of methane such as natural gas. Hydrogen gas can also be produced through electrolysis, which uses electricity to split water into hydrogen and oxygen. Hydrogen produced by electrolysis can result in zero greenhouse gas emissions when clean energy resources are used to generate the electricity, referred to as green hydrogen.

Investments in hydrogen as a clean energy resource is growing. The recently enacted Infrastructure Investment and Jobs Act appropriated \$9.5 billion between fiscal years 2022 through 2026 to fund hydrogen research and development. In addition, electric utilities are planning to increase hydrogen blends into the fuel supply of gas-fired power plants. For example, Public Services Company of Colorado (d.b.a. Xcel Energy) is planning to increase hydrogen blending at a rate of 10 percent each year, with a goal of reaching 100 percent by 2050, for all gas-fired resources.¹

State Expenditures

In FY 2022-23, the Colorado Energy Office will incur workload impacts to update the roadmap to include green hydrogen. The office is planning to update the roadmap in FY 2022-23 and can accommodate this requirement in the normal course of business. The Public Utilities Commission in the Department of Regulatory Agencies will update renewable energy standard rules to codify the inclusion of green hydrogen, which can be accomplished within the normal course of business.

Local Governments

Municipal utilities that are qualifying electric utility providers may use green hydrogen to meet renewable energy standards. Depending on the cost to develop and utilize green hydrogen energy compared to other sources of energy, local governments may have increased expenditures to develop these resources.

Effective Date

The bill takes effect 90 days following adjournment of the General Assembly sine die, assuming no referendum petition is filed.

State and Local Government Contacts

Colorado Energy Office
Information Technology
Municipalities

Regulatory Agencies
Local Affairs

The revenue and expenditure impacts in this fiscal note represent changes from current law under the bill for each fiscal year. For additional information about fiscal notes, please visit: leg.colorado.gov/fiscalnotes.

¹ PUC Proceeding Number 21A-0141E. Public Service Company of Colorado Application for Approval of its 2021 Electric Resource Plan and Clean Energy Plan.