Amendment No. 883

Senate Amendment to Senate Bill No. 451 (BDR 58-32)

Proposed by: Senate Committee on Growth and Infrastructure

Amends: Summary: Yes Title: Yes Preamble: No Joint Sponsorship: No Digest: Yes

ASSEMBLY ACTION		Initial and Date	SENATE ACTION		Initial and Date
Adopted ☐	Lost ☐		Adopted ☐	Lost ☐	
Concurred In ☐	Not ☐		Concurred In ☐	Not ☐	
Receded ☐	Not ☐		Receded ☐	Not ☐	

EXPLANATION: Matter in (1) ***blue bold italics*** is new language in the original bill; (2) variations of **green bold underlining** is language proposed to be added in this amendment; (3) ~~red strikethrough~~ is deleted language in the original bill; (4) ~~purple double strikethrough~~ is language proposed to be deleted in this amendment; (5) orange double underlining is deleted language in the original bill proposed to be retained in this amendment.

CBN/JFD Date: 6/2/2023

S.B. No. 451—Enacts provisions to promote the development and use of clean hydrogen technology in this State. (BDR 58-32)

SENATE BILL NO. 451–SENATOR SPEARMAN

APRIL 17, 2023

Referred to Committee on Growth and Infrastructure

SUMMARY—~~[Enacts provisions]~~ **Directs the Joint Interim Standing Committee on Growth and Infrastructure** to ~~[promote the development and use of clean]~~ **conduct a study concerning certain subjects related to** hydrogen**.** ~~[technology in this State.]~~ (BDR ~~[58-32)]~~ **S-32)**

FISCAL NOTE: Effect on Local Government: No.
Effect on the State: Yes.

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EXPLANATION – Matter in ***bolded italics*** is new; matter between brackets ~~[omitted material]~~ is material to be omitted.

AN ACT relating to energy; ~~[requiring the Office of Energy within the Office of the Governor, the Public Utilities Commission of Nevada, the Office of Economic Development within the Office of the Governor and the Department of Transportation to coordinate and take certain actions to promote the development and use of clean hydrogen technology in this State;]~~ **directing the Joint Interim Standing Committee on Growth and Infrastructure to conduct a study during the 2023-2024 interim concerning certain subjects relating to hydrogen;** and providing other matters properly relating thereto.

Legislative Counsel's Digest:

~~[Existing law requires the State Department of Conservation and Natural Resources to issue an annual report that includes a statewide inventory of greenhouse gas emissions and a projection of annual greenhouse gas emissions in this State for the 20 years immediately following the date of the report. Existing law requires the report to also include policies that could achieve reductions in greenhouse gas emissions and a qualitative assessment of whether such policies support long-term reductions of greenhouse gas emissions in this State to zero or near-zero by the year 2050. (NRS 445B.380)~~

~~This bill requires the Office of Energy within the Office of the Governor, the Public Utilities Commission of Nevada, the Office of Economic Development within the Office of the Governor and the Department of Transportation to coordinate and take action to promote the production, processing, delivery, storage and use of clean hydrogen in this State for the purpose of reducing greenhouse gas emissions in this State, promoting the energy independence of this State and facilitating the economic development and diversification of this State. This bill requires such actions to include, without limitation, applying for or facilitating applications for grants from the Federal Government for the purpose of incentivizing activities related to the development and use of clean hydrogen technology in this State, identifying and reducing regulatory barriers to the development and use of such technology, and encouraging partnerships with educational institutions in this State for activities related to the development and use of clean hydrogen technology in this State.]~~

Existing law authorizes the Joint Interim Standing Committee on Growth and Infrastructure to evaluate, review and comment upon matters related to energy policy within this State. (NRS 218E.815) This bill directs the Committee to conduct a study during the 2023-2024 interim concerning: (1) the production and storage of hydrogen; (2) the use of stored hydrogen as a potential energy resource in this State; and (3) the development of hydrogen technologies. This bill requires the study to include, without limitation: (1) a review of the opportunities for students enrolled in an institution within the Nevada System of Higher Education to study subjects concerning hydrogen; and (2) an assessment of the feasibility of using hydrogen as an energy resource in this State. Finally, this bill requires the Committee to submit a report of the results of the study and any recommendations for legislation to the Director of the Legislative Counsel Bureau for transmittal to the 83rd Session of the Nevada Legislature.

WHEREAS, Senate Bill No. 254 of the 2019 Session of the Nevada Legislature (Chapter 323, Statutes of Nevada 2019, at page 1970) established a statewide goal of reducing greenhouse gas emissions to 28 percent below the 2005 level of such emissions by 2025, to 45 percent below the 2005 level of such emissions by 2030 and to zero or near-zero by 2050; and

WHEREAS, The State Climate Strategy establishes a plan for achieving the targets established by Senate Bill No. 254 for the reduction of greenhouse gas emissions and has identified clean hydrogen and clean hydrogen technologies, including, without limitation, hydrogen fuel cell vehicles and hydrogen fueling stations, as opportunities to reduce greenhouse gas emissions in this State; and

WHEREAS, Global economic activity involving the production, processing, delivery, storage and use of clean hydrogen is currently valued at more than $100 billion per year in 2022 and is expected to grow across the world as demand for clean energy increases; and

WHEREAS, The emergence of end-use applications for energy produced from clean hydrogen, including, without limitation, in transportation, seasonal energy storage and the global energy trade, provide an opportunity for this State to meet its targets for the reduction of greenhouse gas emissions while at the same time enhancing economic development, job creation and the collection of tax revenue in this State; and

WHEREAS, Encouraging the expansion of the use of clean hydrogen will decrease the emission of greenhouse gases in this State, which will have the effect of improving the health of Nevadans through the improvement of air quality, especially for economically disadvantaged Nevadans and communities of color; now, therefore,

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. ~~[Chapter 701 of NRS is hereby amended by adding thereto a new section to read as follows:~~

~~*1. The Office of Energy within the Office of the Governor, the Public Utilities Commission of Nevada, the Office of Economic Development within the Office of the Governor and the Department of Transportation shall coordinate and take action to promote the production, processing, delivery, storage and use of clean hydrogen in this State for the purpose of reducing greenhouse gas emissions in this State, promoting the energy independence of this State and facilitating the economic development and diversification of this State. Such actions must include, without limitation:*~~

~~*(a) Applying for or facilitating applications for grants available from the Federal Government and other sources which have the express purpose of incentivizing the production, processing, delivery, storage or use of clean hydrogen in this State.*~~

~~*(b) Identifying regulatory barriers to the production, processing, delivery, storage or use of clean hydrogen in this State and recommending or, if authorized by law, taking actions to remove such barriers.*~~

~~*(c) Promoting increased opportunities for students in community colleges, state colleges, universities and research facilities within the Nevada System of Higher Education to study subjects related to clean hydrogen and hydrogen technologies at those institutions.*~~

~~*(d) Encouraging partnerships with the Nevada System of Higher Education to promote the training of a workforce qualified to develop, construct, improve, maintain and repair facilities used to produce, process, deliver, store or use clean hydrogen in this State.*~~

~~*(e) Encouraging partnerships among the Nevada System of Higher Education, elementary and secondary schools in this State, the National Renewable Energy Laboratory and the private sector, including, without limitation, the energy businesses in this State, to promote the production, processing, delivery, storage and use of clean hydrogen as an energy resource in this State.*~~

~~*(f) Entering into agreements with the University of Nevada, Reno, the University of Nevada, Las Vegas and the Desert Research Institute for the gathering of data concerning the assessment and development of clean hydrogen as an energy resource and the production of a cost-benefit analysis of the production, processing, delivery, storage and use of clean hydrogen as an energy resource in this State.*~~

~~*2. The activities described in subsection 1 must be directed toward incentivizing the production, processing, delivery, storage and use of clean hydrogen as an energy resource in this State for a variety of applications, including, without limitation:*~~

~~*(a) The use of clean hydrogen as fuel for the operation of zero-emission light-duty and medium-duty vehicles, trucks, buses, locomotives, off-road equipment, aircraft and watercraft, and the establishment of fueling infrastructure to support such use.*~~

~~*(b) The use of clean hydrogen to power commercial or industrial equipment.*~~

~~*(c) The use of wastewater or wastewater treatment facilities to produce clean hydrogen.*~~

~~*(d) The conversion of existing mines into resources for the production of clean hydrogen, including, without limitation, the production of clean hydrogen from water associated with inactive or abandoned mines.*~~

~~*(e) The use of clean hydrogen microgrids as energy storage for microgrids and coupling clean hydrogen with distributed energy resources to strengthen the resilience of the power grid.*~~

~~*3. As used in this section, "clean hydrogen" means hydrogen produced in compliance with greenhouse gas emissions standards established by the United States Secretary of Energy under 42 U.S.C. § 16166.]*~~ **(Deleted by amendment.)**

Sec. 2. **1. During the 2023-2024 interim, the Joint Interim Standing Committee on Growth and Infrastructure shall conduct a study concerning the production and storage of hydrogen, the use of stored hydrogen as a potential energy resource in this State and the development of hydrogen technologies.**

2. In conducting the study, the Joint Interim Standing Committee on Growth and Infrastructure shall consult with and solicit input from:

(a) The Nevada System of Higher Education;

(b) The National Renewable Energy Laboratory;

(c) Existing energy industries in this State;

(d) Developers of clean energy;

(e) Nongovernmental organizations that focus on energy conservation;

(f) Utilities that provide gas and electric services; and

(g) Professionals with expertise regarding the use of hydrogen and stored hydrogen and the development of hydrogen technologies.

3. The study must include, without limitation:

(a) A review of the opportunities for students enrolled in an institution within the Nevada System of Higher Education to study subjects concerning hydrogen, including, without limitation:

(1) The process for the production and storage of hydrogen and any methods and technology used in such a process; and

(2) Hydrogen technologies; and

(b) An assessment of the feasibility of using hydrogen as an energy resource in this State, including, without limitation, consideration of:

(1) The potential for hydrogen and stored hydrogen to enable the operation of zero-emission light- and medium-duty vehicles, trucks, buses, locomotives, off-road equipment, aircraft, industrial equipment and watercraft;

(2) The potential for using wastewater and wastewater treatment facilities for the production of hydrogen;

(3) Methods for incentivizing the use of hydrogen and stored hydrogen as energy resources in this State;

(4) Economic and regulatory barriers to the implementation of hydrogen and stored hydrogen as energy resources, including, without limitation, whether policies incentivizing the production and storage of hydrogen as energy resources and hydrogen technologies are comparable to policies incentivizing the production of other energy resources and applicable technologies in this State;

(5) Opportunities for federal and nongovernmental grants that may be available for the purposes of producing and storing hydrogen in this State;

(6) The potential for using hydrogen microgrids, stored hydrogen microgrids and hydrogen coupled with distributed energy resources to strengthen the resilience of the electric power grid;

(7) The impact of hydrogen production on water resources in this State;

(8) The impact of limited water resources on the production of hydrogen in this State and its potential as an energy resource; and

(9) The long-term impact of various methods of hydrogen production on the air, water and other natural resources of this State and the potential for hydrogen to assist with efforts to decarbonize this State.

4. To complete the study, the Joint Interim Standing Committee on Growth and Infrastructure may enter into a contract or other agreement with the University of Nevada, Reno, the University of Nevada, Las Vegas, or the Desert Research Institute to:

(a) Gather data concerning the feasibility of hydrogen and stored hydrogen as energy resources; and

(b) Produce a cost-benefit analysis of hydrogen as an energy resource.

5. On or before January 1, 2025, the Joint Interim Standing Committee on Growth and Infrastructure shall submit a report of the results of the study, including, without limitation, any recommendations for legislation, to the

Director of the Legislative Counsel Bureau for transmittal to the 83rd Session of the Nevada Legislature.

6. For the purposes of this section, "hydrogen technologies" means technology used in the production, storage and distribution of hydrogen and stored hydrogen.

Sec. 3. **This act becomes effective upon passage and approval.**