

# Realizing Nevada's Electric, Innovative, and Connected Future

## 5-Year Comprehensive Economic Development Strategy

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**Prepared for:**

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Development

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# Executive Summary

In the wake of the COVID-19 pandemic, the economic landscape of Nevada changed immeasurably. It is estimated that Nevada's tourism and creative economy lost around \$1.3 billion in revenue and experienced 64% unemployment due to COVID. The crisis also accelerated ongoing shifts in the international supply chain and accelerated the integration and implementation of new technologies more rapidly than expected. Moreover, the pandemic highlighted the national security implications of outsourced resources extraction, parts manufacturing, and advanced manufacturing production.

Nevada, however, is uniquely situated to turn these headwinds into a win for the state's economy and a win for national economic recovery, security, and sustainability. The Governor's Office of Economic Development (GOED) collaborated with SRI International to assess Nevada's current economic landscape, map key assets and challenges to growth, identify opportunities for emerging industries and diversification within mature industries, and develop strategies and action steps to catalyze a vibrant, innovative, and sustainable economy with high-paying jobs for Nevadans. This five year statewide economic development strategy, **Realizing Nevada's Electric, Innovative, and Connected Future**, provides a roadmap for state leadership to leverage Nevada's assets, build upon its emerging growth, diversification, and innovation, while ensuring inclusive growth.

## Key Findings

Given the development in Nevada's clean tech industry and its complete lithium supply chain, **Nevada is positioned to be ground zero for the energy transition and to play a key role in securing the energy independence and security of the United States.** The development of the IT and Advanced Manufacturing industries, Nevada's access to and production of natural resources such as lithium, and its proximity to innovation hubs and talent, has enabled clean energy to flourish in the state. The expansion of existing Redwood Materials operations has closed the electric value chain loop for electric batteries giving Nevada a significant competitive advantage in the industry as the only state in the nation that can claim such a feature.

Nevada's **innovation ecosystem benefits from a strong entrepreneurial culture, dynamic economy, low cost of living, and easy access to the fifth largest economy in the world, California.** Furthermore, the state's Knowledge Fund recruits highly specialized science and research faculty, expands existing research areas, and assists applied research centers in supporting industry innovation in Nevada. Nevada's strong flow of venture capital investments and patenting activity indicates additional significant innovation potential. Despite these trends, Nevada lags competitors in new business growth and research and development.



To diversify the economy and grow target industries, Nevada needs a **new generation of infrastructure** and has transformative opportunities underway, including Nevada’s Comprehensive Connectivity Strategy, funding from the Infrastructure Investment and Jobs Act (IIJA), funding from National Telecommunications and Information Administration to expand internet access to 11 Tribal communities, and an agreement to develop high-capacity transit in Las Vegas.

**Significant economic disparities exist among Nevada’s diverse communities.** Nearly 13% of Nevada’s population live in distressed communities located throughout the state. The distressed communities within Nevada are concentrated in three regions: Northeast (Elko), Northwest (Reno), and Las Vegas. The state should prioritize collaboration with community leaders, such as the Southern Nevada Enterprise Community (SNEC), to understand the challenges these communities face and develop specific programmatic interventions necessary to mitigate these challenges.

## Current Conditions

Higher wage, innovation-based industries grew more quickly over the past decade than more mature state economic drivers, demonstrating the positive structural changes taking place in the economy. However, structural change is not without pain points. Hospitality worker unemployment soared, underscoring the imperative of inclusive growth and creating pathways to allow these workers and others to access new opportunities within growing industries.

Nevada’s population and labor force is driven largely by in-migration, with many new residents coming from California. Although Nevada has a relatively high share of associate degree graduates with technology skills, the state lags in science, technology, engineering, and mathematics (STEM) education overall. While entrepreneurship and research and development (R&D) lag competitors, rapidly increasing venture capital investments and patenting activity across a diverse range of industries indicates significant innovation potential in the state. Key assets of the state’s economy are its natural resources, favorable business environment, and recreational amenities. Key economic enablers such as housing availability and affordability, water supply, grid infrastructure, healthcare, and quality of K-12 education threaten growth if not addressed. The state should encourage and support creation of high-quality healthcare centers of medicine to improve healthcare quality in communities, enhance access to medical care, and serve as a catalyst for economic development.

Several industries are particularly well-positioned to grow and provide quality jobs in the coming years, including Information Technology, Transportation and Logistics, Natural Resources and Technologies, Hospitality, Tourism, Sports, and Creative Industries, and Advanced Manufacturing. Over the past decade, Data Hubs, the largest **Information Technology** industry sector and highest paying, was also the fastest growing, while Broadband declined. The pandemic exacerbated core challenges related to the **Transportation and Logistics** industry. While several sectors demonstrated strong growth in recent years, including Warehousing, Trucking, and Multi-Modal Hubs; Rail, Wholesaling, and Air were not as resilient. These declining sectors are also some of the better paying. The **Natural Resources and Technologies** industry has gained employment and comparative advantage over the past decade, notably in the areas of clean energy. Nevada’s natural assets, mining workforce, manufacturing capabilities, proximity to regional innovation hubs, and attraction of key employers have resulted in Nevada as one of a few, if only, locations in the world with a complete lithium supply chain and overall natural resources and technologies ecosystem ripe for further growth.

The higher-wage Sports and Creative Industries sectors in the **Hospitality, Tourism, Sports, and Creative Industries** grew faster over the past decade than gaming and other mature sectors within the industry and experienced slower decline during COVID. This points to adaptation, structural change, and diversification within the hospitality and entertainment-related industries. The ongoing green transition has provided an opening for the state to develop its own **Advanced Manufacturing**



hub by disrupting the traditional emission-based supply chain. While aerospace and defense continue to remain the largest manufacturing sectors by volume, Clean Technologies and various types of transportation that use electric energy (E-Mobility) have grown, especially E-Mobility as battery storage manufacturers flock to the state.

## Vision and Goals

GOED's vision is a vibrant, innovative, and sustainable economy with high-paying jobs for Nevadans. This economic future will be realized by pursuing clean energy, strengthening innovation ecosystems, and bolstering critical infrastructure.



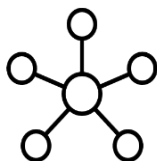
### Electric Nevada

Nevada will be a world leader in the development and use of clean energy innovations. It will capitalize on its strengths and export the innovative processes and products in mining and production of batteries and solar energy to new global markets supported by a robust, statewide electric vehicle (EV) and energy storage infrastructure. Nevada will be ground zero for the energy transition.



### Innovative Nevada

Nevada's economy will be supported by a thriving innovation ecosystem that builds on state assets, history, and culture, and strengthened by collaborating academia, industry, and government players. It will engage a workforce with technical skills at all levels, attract a diverse portfolio of investments, and develop and commercialize world-changing new ideas.



### Connected Nevada

Nevada will lead next generation infrastructure that connects industries and businesses within the state to accelerate new economic opportunities. The state will capitalize on its strengths and enhance its connectivity efforts by updating multimodal inland ports and industrial parks, adding new rail links, and expanding broadband infrastructure. Nevada will make investments as necessary to convert its unique geographic locations in the northern and southern regions into connected hubs for re-shored supply chains and digital networks.

## Strategies

GOED will advance Nevada's unique competitive position, address critical gaps, and strengthen coordination and collaboration amongst stakeholders with a new five-year strategy supported by the following actions:

### Electric Nevada

- Assess and strengthen electric vehicle (EV) production vertical supply chain
- Enable solar energy-related innovations
- Support completion of utility connectivity
- Support the build out of EV infrastructure

### Innovative Nevada

- Create a unified vision for innovation
- Increase capital access to startups and later-stage businesses
- Strengthen university technology transfer system
- Scale industry partnerships to expand STEM workforce
- Lead globally on water scarcity policy and innovation

### Connected Nevada

- Support development of multimodal inland port
- Develop tech-ready industrial parks
- Identify private-sector investment opportunities for freight rail
- Support planned airport-related infrastructure developments
- Support expansion of broadband and 5G infrastructure

At the core of Nevada's new economic development strategy is its people. The success of the strategy rests on a foundation of educated, healthy, and connected communities with capable public services and access to quality jobs. As such, the strategy includes a Leadership Plan for Inclusive Growth to ensure that residents throughout the state, regardless of background or zip code, can contribute to and benefit from economic growth.

These action items and overall strategy move Nevada closer to fulfilling its vision, leveraging the state's unique economic assets, culture, and history, and enabling the collaboration necessary to realize Nevada's electric, innovative, and connected inclusive future.

## Strategy Development Approach

The Governor's Office of Economic Development (GOED) worked with SRI International to develop this strategy and its underlying goals. To generate the insights for this strategy, SRI's Center for Innovation Strategy and Policy (CISP):

- Facilitated convenings of the leadership of the regional the Regional Development Authorities (RDA) within the state and the GOED Board of Directors;
- Interviewed key stakeholders across government, the private sector, academia, and community organizations;
- Gathered and analyzed economic and workforce data; and reviewed previous and current regional and state economic development policy documents; and
- Researched best practices from Nevada and other states.

In addition to a comprehensive economic and community assessment and SWOT analysis, the insights from these efforts supported the identification of five target industries (Information Technology; Transportation & Logistics; Natural Resources & Technologies; Hospitality, Tourism, Sports, & Creative Industries; Advanced Manufacturing) and actions to advance them over the next five years.

