

# HARNESSING THE POWER OF GREEN ENERGY IN SOUTHERN IDAHO

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Sustainability has been integrated into the operations of companies around the globe. It's no secret why, as the clean-tech product market is projected to grow to a \$1.6 trillion industry by 2020. In fact, 57 percent of companies have now integrated sustainability into their strategic planning efforts, according to a McKinsey & Company study.

Taking steps toward sustainability reduces emissions and conserves energy, waste and water; this not only benefits the environment but cuts costs long term. Sustainable operations can also help manage your company's reputation, reach new customers and markets, open opportunities for green sales and marketing and meet regulation standards.

The integration of sustainability affects company culture too. McKinsey & Company reports a company's sustainability efforts can play a key role in attracting and retaining employees, as concern for this form of corporate responsibility grows amongst employees at all levels.

"Sustainability is one of the smartest ways for a business to have a competitive advantage through a focus on financial, social and environmental aspects of the business," said John Bernardo, Sustainability Strategist for Idaho Power. "These drivers are also known as people, planet and profit."

## A Culture of Sustainability

As the business case for sustainable operations grows, new companies or

companies looking to expand should consider regions where renewable energy is plentiful and makes sense for their business. Access to low-carbon energy generation supports sustainability efforts, and should be a priority when finding a site for your business or expansion.

That's what makes Southern Idaho unique. This region is in an ideal location in the United States. All five renewable energy elements can be tapped and used for energy production.



"Southern Idaho has a variety of renewable energy choices," said Bernardo. "It starts with the Snake River and its tributaries where Idaho Power has 17 hydro-electric facilities that deliver clean, renewable energy. The region has solar, wind, biomass and geo-thermal renewable energy sources as well."

In fact, it's one of the only locations in the United States producing commercial power in four of the five renewable energy sectors—with 58 percent of electricity coming from renewable energy sources, including the following:

**Hydroelectric**—The Snake River and its tributaries turns the dry desert landscape

into fertile soil for a massive and vital agriculture industry in Southern Idaho. The river's strong flows throughout the region have been harnessed to produce hydroelectric power. Because of the large amount of electricity produced by hydro power, Idaho has the second lowest utility rates in the Pacific Northwest.

**Wind**—Southern Idaho is an ideal area for wind energy production sites due to its natural wind flow, consistent weather patterns and surplus of open land. The region's average wind speed is 13 miles per hour, optimal for energy production.

**Geothermal**—By harnessing steam power from the earth, geothermal energy is another major player in the area's alternative fuel market with several hotspots within the region. The Yellowstone National Park geothermal hotspot is less than 100 miles from the region, and the utility-scale Raft River geothermal project is in Southern Idaho. The site is attractive because of the proven 300°F hot-water resource that has been developed and tested and because of the significant infrastructure facilities currently in place.

**Biomass**—The region's 525,000 dairy and feedlot cattle equates to ample biomass-generating material. Dairies and local businesses work together to develop and purchase anaerobic digesters that take cow and other agricultural wastes and convert it into natural gas, which is either used commercially or converted into electricity.

**Solar**—While solar isn't yet being used for commercial use, innovative solar projects for utility-scale electricity



generation are ramping up in Southern Idaho—enough to fuel 400,000 homes.

### A History of Innovation

In 2016, Idaho Power accounted for 47 independent solar and wind projects that produced a current total of more than 1,000 megawatts (MW). The company's dedication to sustainability in the region has resulted in a 28 percent drop in carbon dioxide (CO2) emissions since 2005.

Idaho Power partners with its customers to deliver cutting-edge solutions and energy efficiency programs to help customers save energy and money. In fact, a recent solar project by Idaho Power was the first of its kind in the state and possibly the nation. Rural farm and ranching customers living at the end of a power line were experiencing low-voltage issues. Rather than extend the power line, which would accrue significant cost and labor, Idaho Power installed solar panels to generate power locally to maintain voltage more efficiently and cost effectively.

In addition to Idaho Power's sustainability efforts, Southern Idaho has had innovation and renewable energy top of mind for decades. Since 1981, the College of Southern Idaho's (CSI) Renewable Energy Training Center has implemented education and training programs for a strong renewable energy workforce in the region.

"We give students the necessary foundational knowledge and skills to allow them to get the job they seek," said Eli Bowles, Renewable Energy & Industrial Systems Technology Instructor at CSI. "During the program, students are exposed to wind, solar, geothermal and hydro renewable-energy systems. With the base knowledge received here,

students apply the concepts to the company-specific tools and work to get the job done."

Projects and programs like these prove the innovative and sustainable solutions available to businesses located in the region. With the right partners and an ideal location, it makes sense to go green in Southern Idaho. 🏡

# Why Southern Idaho?

Elite Manufacturing Community designation by the U.S. Department of Commerce.

Agri-business sectors include crops, freshwater Rainbow Trout, aquaculture, dairy, food processing, food science, packaging, warehousing and distribution.















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