NREL
Transforming ENERGY

Cover photo by Josh Bauer/Bryan Bechtold, NREL 70814

NREL is expanding our campuses with new facilities and collaboration initiatives to advance research breakthroughs in energy efficiency, sustainable transportation, renewable power technologies, and energy systems integration to create a clean energy future.

Our construction and renovation projects will enable more cross-disciplinary research and partnership opportunities and new ways to scale up global technologies for the marketplace.

Learn more at nrel.gov

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NREL is a national laboratory of the U.S. Department of Energy
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Campus Expansion

NREL's Neighborhood Gets a Whole Lot Bigger

RAIL Provides New, Multipurpose Laboratory Space

The new Research and Innovation Laboratory (RAIL), located on NREL's South Table Mountain Campus, will provide 15,000 square feet of flexible, multipurpose lab space for cross-disciplinary research within the fields of chemistry, materials science, bioscience, and engineering. A first-of-its-kind facility on the NREL campus, RAIL is constructed with a modular design approach, so projects are easily reconfigurable to multiple programs and projects.

RAIL offers the opportunity to develop new methods to recycle plastics for high-value materials as well as explore recyclable-by-design plastics. Plastics upcycling, energy materials, and next-generation batteries will be the three primary research areas in the facility.

The laboratory serves as an example of flexible, sustainable, high-performance building design. It includes energy-efficient technologies such as heat recovery evaporative cooling and infrastructure to support future renewable technologies. The building will further be equipped to support a future microgrid that will allow the facility to run entirely from renewable energy.

The building is designed for expansion to the north for additional laboratory space that will continue to support the objectives of RAIL's programmatic research.

Left to right: Photo by Werner Slocum, NREL 74853; artist rendering of potential STEP buildout by Canon Design; artist rendering of Glo Park Campus by NexCore Science & Tech

South Table Mountain Energy Park (STEP) Is the Future Home for Startups and Innovations

In January 2023, the U.S. Department of Energy (DOE) took possession of a portion of Camp George West, officially making the space a new NREL-managed campus known as the South Table Mountain Energy Park (STEP). Located just south of NREL's South Table Mountain Campus, this former military base is being converted into a technological hub for exploring renewable energy practices.

STEP is the future home of startups, entrepreneurs, and new innovations to help move the latest research and products closer to commercialization.

STEP is the beginning of a systematic way for our commercial partners and startup entrepreneurs to "step up" their innovations and bring them to market. NREL will preserve some historical origins of the campus but renovate interior spaces to incorporate the latest technology and practices. A STEP campus master plan will outline short-, mid-, and long-term developments. Because of the historical nature of the buildings, Site Operations will engage closely with the Colorado State Historic Preservation Office.

NREL's investments using $15.3 million of Inflation Reduction Act (IRA) funding will be phased over the next five years and will include:

- Renovating interiors of buildings
- Upgrading all utilities
- Improving infrastructure
- Renovating spaces for research readiness and environmental remediation.

The State of Colorado's Global Energy Park Accelerates the Clean Energy Transition

Just south of NREL's South Table Mountain Campus, the Global Energy Park (Glo Park) is a 9-acre site the state of Colorado plans to develop into the epicenter of collaboration among industry, government, and academia to research and create global renewable energy and decarbonization technologies. With NREL's collaboration, Glo Park will bring together leaders to deliver technology and decarbonization solutions that can be replicated across the country and world.

Glo Park will provide purpose-built laboratory spaces, a state-of-the-art data visualization center, accelerated commercialization opportunities, and access to collaborative partnerships with NREL and other tenants—all conveniently located right outside the gates of NREL.

The community will be able to enjoy the outdoor plaza and learn about the technology and careers in clean energy along educational trails from outdoor exhibits in the open space between the Glo Park and STEP campuses. Glo Park will engage students of all age groups and house university-driven research right in the building, molding the next generation of workforce needed to support the clean energy transition.

Other stakeholders in the state-led public-private visioning team include representatives from federal, state, and local government; nongovernmental organizations; community groups; industry and business; higher education institutions; the U.S. Department of Energy (DOE); and NREL.

Learn more at globalenergypark.com