

# **NREL Employee Commuting**

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Department of Energy's

National Renewable Energy Laboratory



**Mission:** Develop renewable energy and energy efficiency technologies and practices, advance related science and engineering, and transfer knowledge and innovations to address the nation's energy and environmental goals

- **Government Owned, Contractor Operated**
  - US Department of Energy
  - Alliance for Sustainable Energy, LLC
- **Staffing 2500**
  - 70 different countries, 30 different languages
  - 1,300 bachelors, 800 masters, and 450 PhD and JDs
- **Extensive Partnerships**
  - With commercial companies
  - With research organizations worldwide
- **Major Industrial Partnering Facilities**
  - Risk reduction prior to technology introduction
  - Wind, distributed generation, PV manufacturing, biofuels



**National Wind Technology Center**



**South Table Mountain Site**



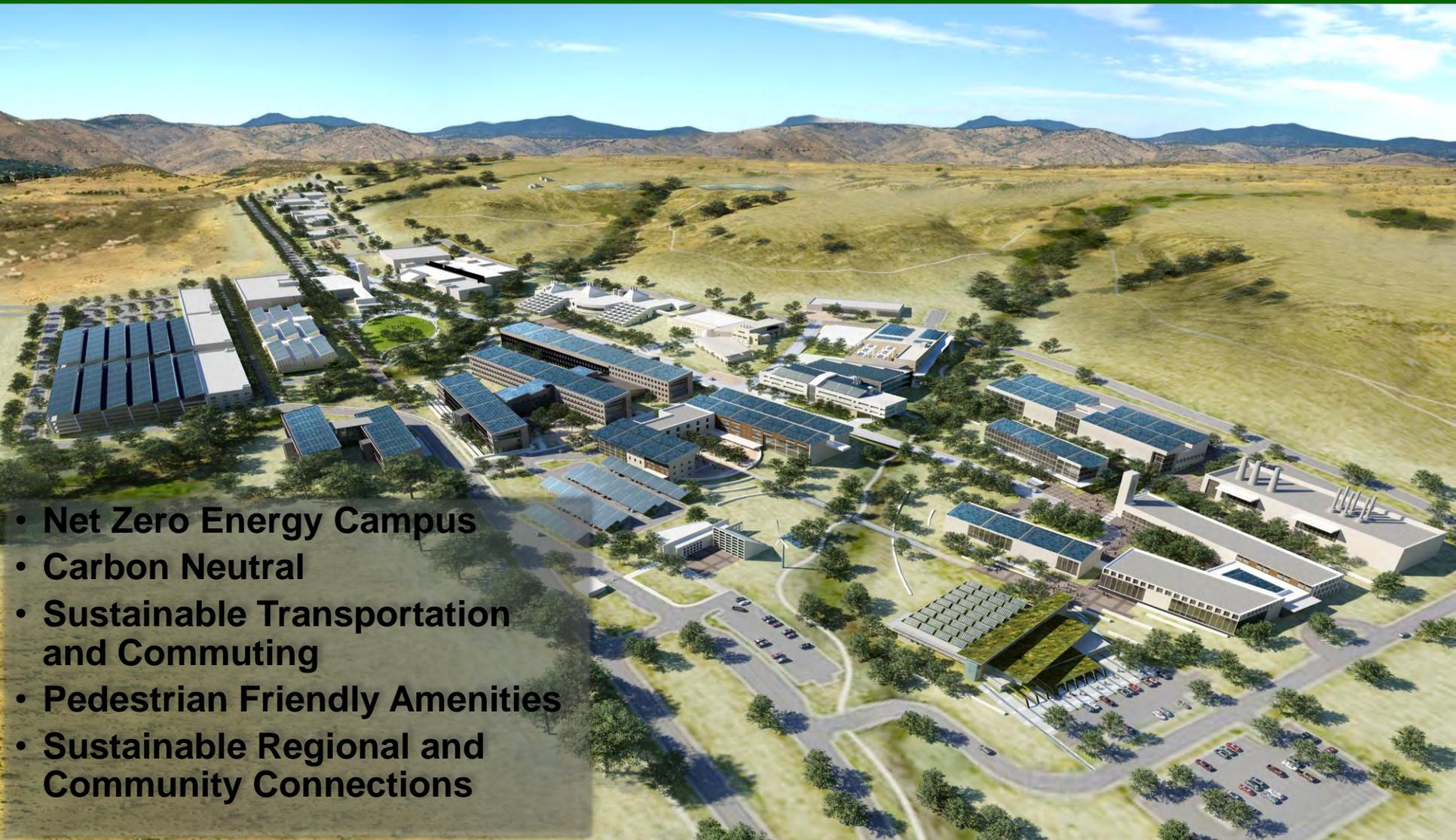
# Leadership and Mission – Sustainably Aligned

***I am fully convinced that our mission is both enabled and enhanced by our leadership in sustainability. The employees of NREL and I are committed to incorporating sustainable principles in our work, and we encourage application of these same principles by our stakeholders. Through our actions we can establish a new benchmark for what is possible.***

***-NREL Director Dr. Dan Arvizu***



# NREL Campus of the Future Master Plan



- Net Zero Energy Campus
- Carbon Neutral
- Sustainable Transportation and Commuting
- Pedestrian Friendly Amenities
- Sustainable Regional and Community Connections

# Sustainable NREL

- First formal sustainability program established in 2000
- Began reporting greenhouse gas emissions in 2002
- Reports to the Laboratory Chief Operating Officer, staff of 5.5



# Scope 3 Greenhouse Gas Reduction Initiatives

A photograph showing a man and a woman standing on a paved area, talking. The man is wearing a blue jacket, a blue helmet, and brown pants, and is holding a red and black bicycle. The woman is wearing a black jacket, sunglasses, and black pants, and is also holding a bicycle. They are in front of a modern building with a grid-like facade. The sky is clear and blue.

- Promote Alternative Working and Commuting

- Minimize air travel

- Near zero waste management

- Onsite Renewable energy

# Sustainable NREL Commuting Council

- **To promote effective and efficient commuting and working practices at NREL**
  - Established June 12, 2009
  - 14 lab-wide representatives, chairperson and Subject Matter Experts
    - Diverse perspectives
    - 2 DOE representatives
- **Subcommittees**
  - **Alternative Working**
    - **Telecommuting**
      - Baseline and Metrics
      - Taxes and Compliance
    - **Alternate Work Schedule (AWS)**
  - **Alternative Commuting**
    - **Mass transit** – Eco Pass – NREL Shuttles
    - **Carpooling** – Rideshare matching (NREL/DRCOG)
    - **Vanpooling** – Vanpool vouchers
    - **Bicycling and pedestrian** – Supportive infrastructure
  - **Teleconferencing**



# Alternative Working Program

- **Telecommuting and AWS**
  - **Pilot conducted in FY 2009**
  - 492 employees from over a dozen groups
  - Telecommuting program governance
    - Telecommuting Procedure
    - Telecommuting Agreement
    - Telecommuting / Home Safety Guidelines
    - IT Tools; Telecommuting Reference Card
    - Candidate Assessment Tool for Telecommuting
  - Telecommuting training videos
    - Workers
    - Managers
- **Telecommuting opened Lab-wide 2010 - Survey in 2011 indicated**
  - 19% of staff telecommute at least once per week
  - 24% of staff work Alternative Work Schedules (4X10's or 9/80)

# Alternative Commuting Programs

- **Mass Transit** –Eco Pass from Regional Transportation District (RTD)
  - NREL Shuttles to 2 Park-n-Ride transfer stations
  - Six Shuttle routes Lab-wide
  - Eco Pass usage for business travel vs. commuting tracked separately

- **Carpooling** – two Rideshare matching programs

- DRCOG Rideshare
- NREL Car Pooling SharePoint

- **Vanpooling**

- Vanpool Incentive Program provides monthly vouchers for up to \$200 to pay the fare for employees who participate in official vanpools

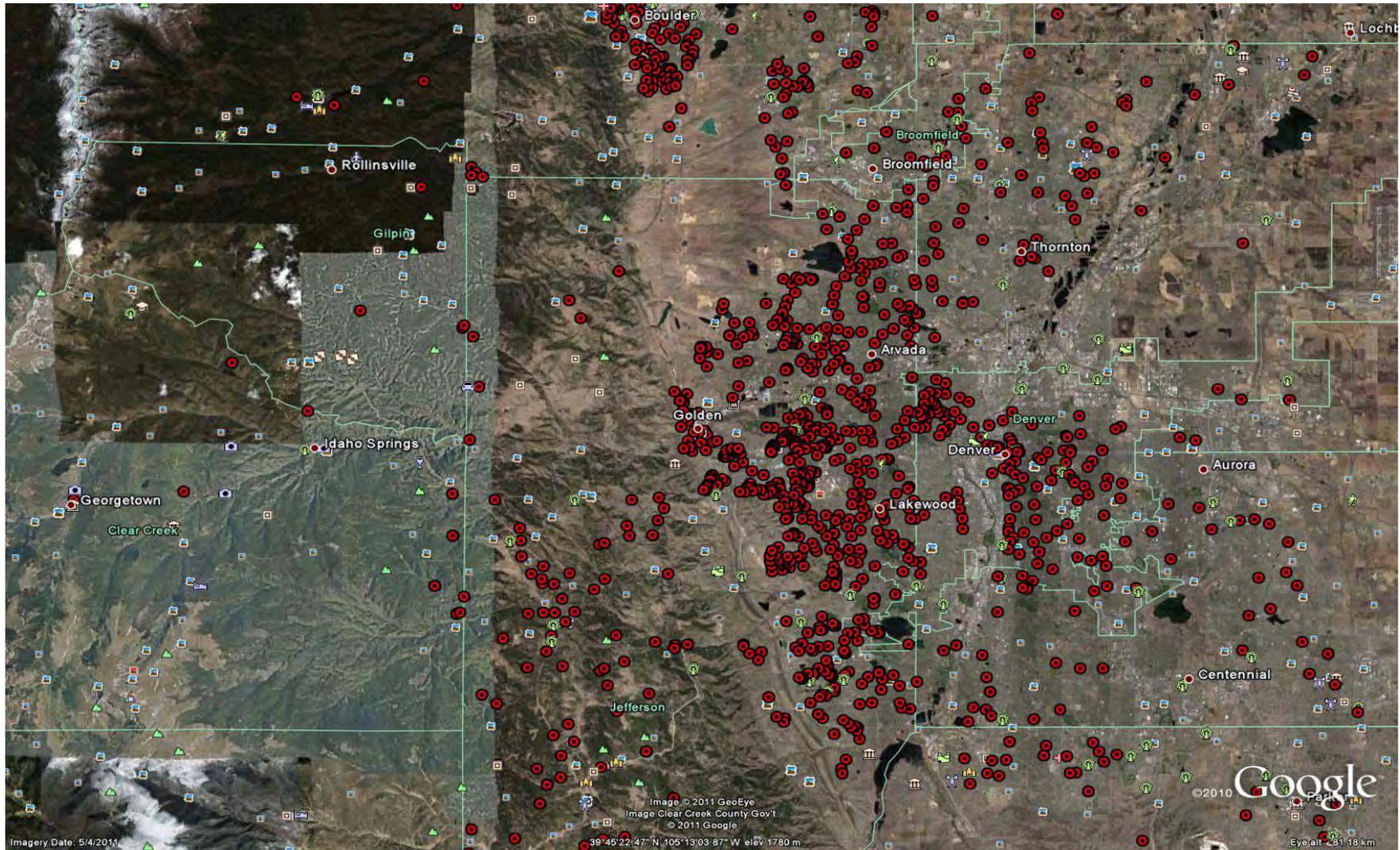
- **Bicycling and Pedestrian** – Supportive infrastructure

- **The Guaranteed Ride Home Program**

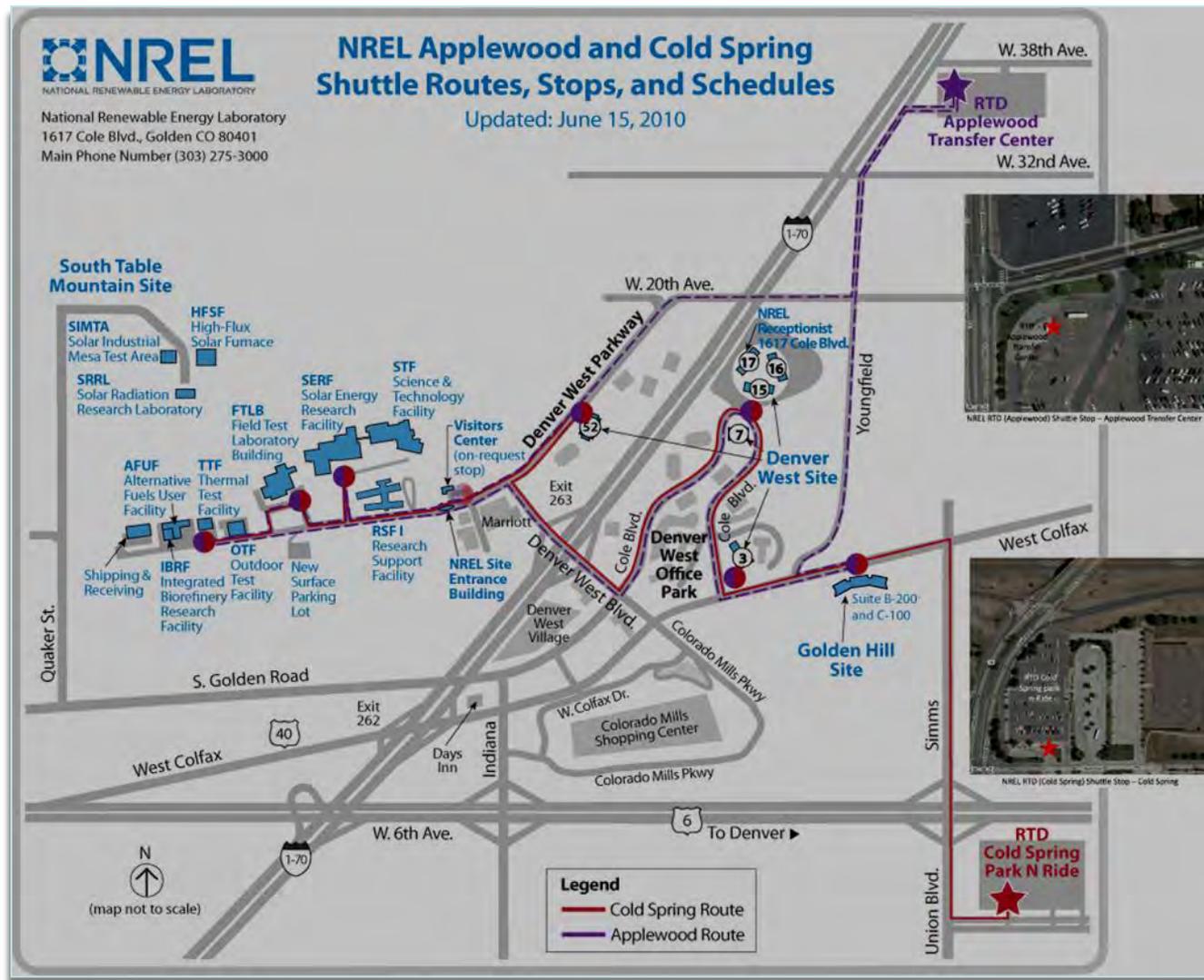
- Available when any form of alternative commuting is used



# GPS Map of NREL Employee Commute



# Example of Shuttle Route Maps



Maps are available on the Sustainable NREL Website

Shuttle schedules are also available by I Phone and Droid

# NREL's New Sustainable Parking Structure



- *Incentivized parking for*
  - *Van Pooling*
  - *Car Pooling*
  - *Low Emission Vehicles*
- *Plug-in stations for electric vehicles*
- *Controlled loading to minimize lighting*

# Questions or Thoughts ?



*Research Support Facility*

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