



City Manager's Office

MEMORANDUM

DATE: January 23, 2023

TO: Mayor and City Council

THROUGH: Doug Thornley, City Manager Approved Electronically

FROM: Suzanne Groneman, Sustainability Program Manager
Jackie Bryant, Assistant City Manager

SUBJECT: Sustainability & Climate Action Plan 2022 Progress Update

In July 2019, the Reno City Council unanimously adopted the City of Reno Sustainability & Climate Action Plan (Plan). There are nine priorities under the Plan ranging from advancing clean energy, to protecting our urban forests, to ensuring equitable access to healthy food. This update is the second update since the adoption of the Plan.

Highlights include:

- Community-wide greenhouse gas emissions report
- Progress toward City renewable energy goals
- Sustainability Plan Tracker



Sustainability & Climate Action Plan 2022 Progress Update

In July 2019, the Reno City Council unanimously adopted the City of Reno Sustainability & Climate Action Plan (Plan). There are nine priorities under the Plan ranging from advancing clean energy, to protecting our urban forests, to ensuring equitable access to healthy food, with the ultimate goal of reducing community-wide Greenhouse Gas Emissions (GHG) 28% by 2025 and 40% by 2030. Significant highlights in 2022 include:

- Bird e-scooter share program launched (4.6 and 4.7)
- Renewable energy baseline and analysis completed (1.13 and 2.3)
- City-wide outdoor park lighting project approved (1.1 and 1.2)
- Solar and storage program at the new Public Safety Center approved (1.13 and 2.3)
- Electric vehicles in fleet (1.5) and vehicle charging infrastructure expanded (1.6)
- SolSmart Silver designation (2.3 and 2.4)
- OneWater Nevada Project (8.4)
- City of Reno certified as a LEED Gold City

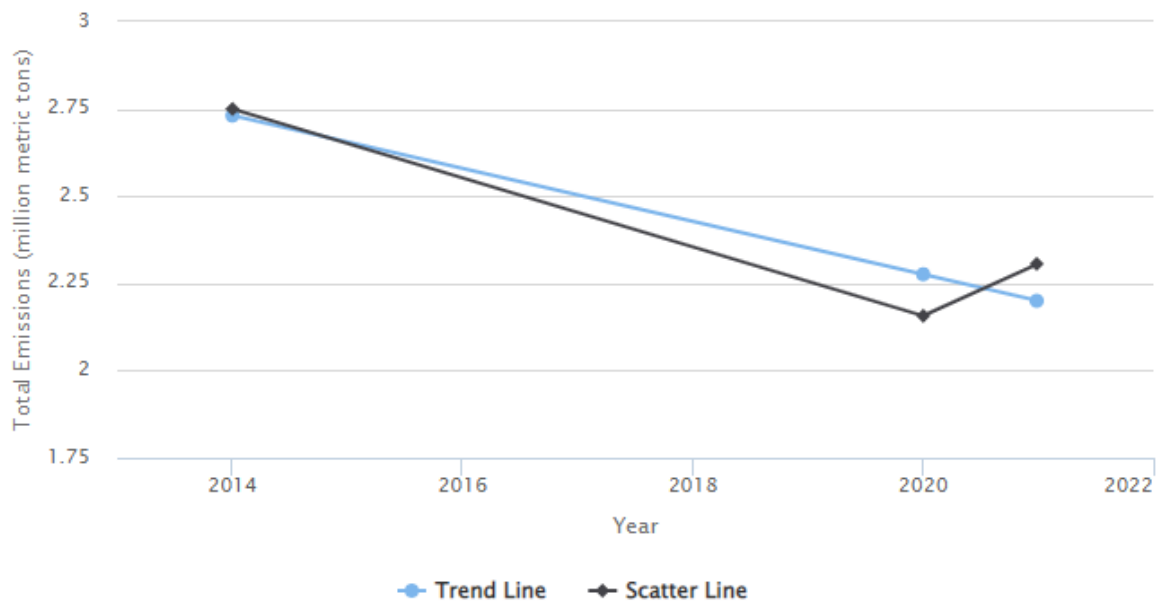
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Community-Wide Greenhouse Gas Emissions

The City of Reno performed a baseline analysis of community-wide Greenhouse Gas (GHG) emissions in 2014. The total emissions at that time were 2.75 million metric tons; down from 3.2 million metric tons in 2008. The City of Reno recently used [Google Environmental Insights](#) under the LEED for Cities submission. **In 2020, total emissions were 2.157 million metric tons¹. This represents a 21.564% drop in emissions from 2014 levels.** However, during that time Reno saw a significant drop in local and transient traffic due to COVID-19, which resulted in a higher than expected decrease in emissions from transportation. In 2021, total emissions were 2.306 million metric tons which represents approximately a 16% drop (2.3% per year) over 2014 levels (See Figure 1). Using 2021 community-wide emissions data and projecting per year reductions, the City will fall short of its 2025 goal of a 28% reduction by 2%-3%. Based upon the 2020 data, the City can directly influence emissions reductions by reducing transportation if desired.

Figure 1



Google Environmental Insights (EIE)– **What GHG are included?** EIE accounts for emissions of seven greenhouse gases associated with electricity generation and fuel burning:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous oxide (N₂O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF₆)
- Nitrogen trifluoride (NF₃)

Total GHG emissions are measured in metric tons of carbon dioxide equivalent (tCO₂e). There are many activities that may occur within the city boundaries that generate greenhouse gas (GHG) emissions, including energy production, transportation, industrial activities, waste management, agriculture, forestry, and other land uses.²

¹ https://insights.sustainability.google/places/ChIJnaCSkq5AmYARh_c4dM7FxUA

² <https://insights.sustainability.google/methodology>

City Progress Toward Renewable Energy Goals

In connection with Goal 2.1 under the Plan and the 2020-2025 Strategic Plan, Goal E.6, the City worked with nZero to evaluate its onsite renewable generation (located on or at City property) which is currently 10% (See *Figure 1*). This is unchanged from a previous analysis performed in 2018. However, to evaluate the percentage of renewables covering City needs, grid-tied renewable energy sources should also be considered. Grid-tied renewable energy sources were evaluated from generation facilities contracted with NV Energy, as well as open market resources purchased by NV Energy (See *Figure 2*). The overall percentage of renewable energy for City operations is therefore ~20%.

Figure 1: Onsite Generation for the City of Reno

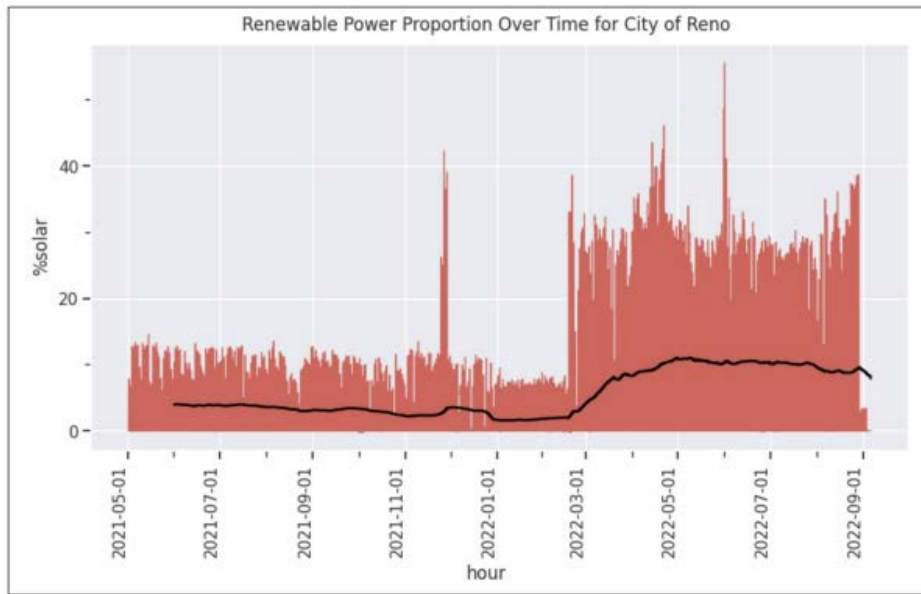
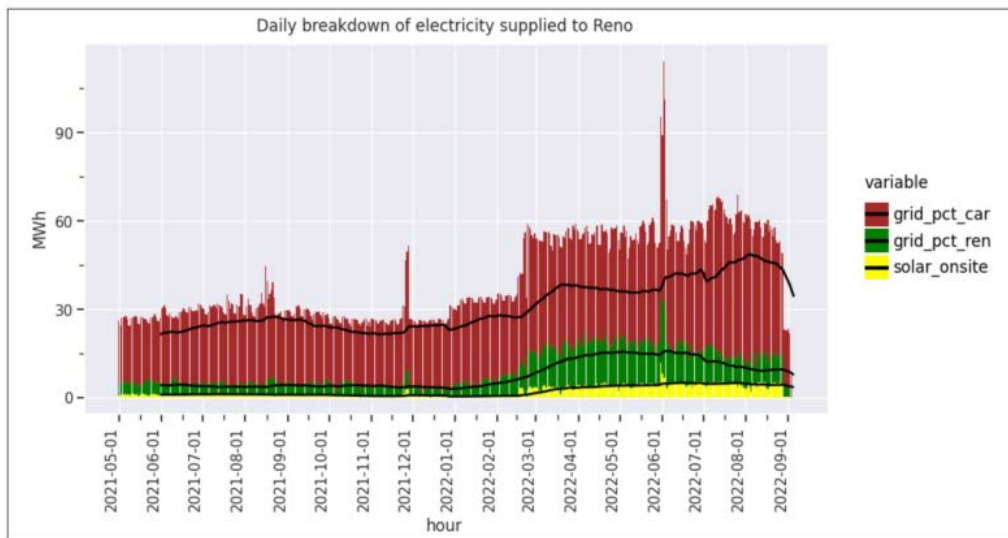


Figure 2: Onsite Generation for the City of Reno and Grid Renewables



(Source: nZero)

Sustainability Plan Tracker
(attached)

| | Dept Lead or Supported | Not Started In Progress Complete Ongoing | Status Details |
|--|------------------------------|---|----------------|
|--|------------------------------|---|----------------|

Priority1: Lead by example - Sustainable City Operations

| | | | | |
|------|--|-------------|-------------|--|
| 1.1 | Reduce energy and water use in city facilities 20% by 2025 from the 2014 baseline. | Sus/PW | In Progress | Water use reduction goal achieved in 2019. Tracking through nZero. |
| 1.2 | Benchmark and report energy and water use of city properties. | Sus | Ongoing | The City tracks and reports per 14.30 . |
| 1.3 | City capital projects to achieve at minimum LEED Silver certification for new construction, and strive to achieve green building certification on renovation projects. | Sus/PW | Ongoing | Seeking an ENERGY STAR certification for the Public Safety Center (PSC) renovation. |
| 1.4 | Demonstrate and promote high-efficiency technologies for heating, cooling and hot water, or net-zero energy building, on city-funded capital projects. | Sus/PW | Not Started | Moana Pool geothermal. |
| 1.5 | Reduce city fleet carbon emissions 28% by 2025. | Sus/PW | In Progress | Baseline analysis done in 2019; 15 EVs in fleet. Added to nZero platform to track |
| 1.6 | Encourage adoption of EVs by installing EV-charging infrastructure at high-use city facilities and strategic locations in the public right-of-way. | PW | In Progress | Chargers at City Hall; McKinley Arts, and Corp Yard. Charger going in at NECC. |
| 1.7 | Implement an employee commute-trip-reduction program, survey employees on commute modes, and establish a goal for reducing drive-alone commutes. | Sus | In progress | Implemented a remote work plan to limit commutes |
| 1.8 | Achieve an overall 50% recycling rate by 2025 from city operations, and construction and demolition projects. | Sus/PW | In progress | Reported 2021/22 use of recycled materials under LEED for Cities; evaluating use of language in RFPs |
| 1.9 | Adopt sustainable purchasing policies and practices across all departments. | Sus/Finance | Not Started | -- |
| 1.10 | Identify opportunities to implement innovative and sustainable practices on site and infrastructure projects, such as LID and green infrastructure. | Multiple | Ongoing | The City identifies these opportunities on all projects and implements when feasible; working on sustainability code |
| 1.11 | Ensure fair investments in tree-canopy coverage in parks and the public right-of-way. | Parks | In Progress | Priority Planting Plan in process using demographic and heat map data. |
| 1.12 | Collaborate on implementation of the One Truckee River Management Plan and track and report actions implemented and resources invested. | Sus/Parks | Ongoing | Crime Prevention Through Environmental Design Report; Veg Management; flood projects. Hold regular update mtgs |
| 1.13 | Consider climate impacts and integrate climate resilience into city planning, services, projects, and investments, and report resilience projects annually. | Sus/Cap pro | Ongoing | Resilience study in 2021. Solar and storage at PSC and proposed at Moana |

| | | Dept Lead or Supported | Not Started In Progress Complete Ongoing | Status Details |
|--|--|---------------------------------------|---|---|
| Priority 2 Transition to clean, renewable energy | | | | |
| 2.1 | Meet 50% of electricity needs for city facilities, infrastructure and streetlights from renewable energy by 2020 and 100% by 2025. | Sus/PW | In Progress | Baseline study (2019). Met 50% of peak load. Evaluated generation in 2022. Streetlight program IP |
| 2.2 | Convert 90% of streetlights to high-efficiency LED fixtures by 2025. | Sus/PW | In Progress | Most city-owned lights are LED; strategy for utility-owned conversion IP. |
| 2.3 | Increase distributed renewable energy generation 15% by 2025 and encourage energy storage. | Supported | Ongoing | SolSmart process; Engagement w/state, utility, WRA, etc |
| 2.4 | Expand solar, energy storage and EV charging infrastructure. | Sus | Ongoing | Policy for solar + storage resilience valuation test. Engagement |
| Priority 3: Green Building is standard practice | | | | |
| 3.1 | Increase energy code compliance rates. | Sus/DS | In Progress | Developed guide consistent with 2018 update. |
| 3.2 | Expand ReEnergize Reno. | Sus | Complete | This program continues to provide workshops under SBC & invites new bldgs. |
| 3.3 | Implement building energy benchmarking and transparency policy for large commercial and multifamily buildings. | Sus | Complete | Launched a management software in 2022 |
| 3.4 | Increase communications and expand industry education. | Sus | Ongoing | SBC; reno.gov; flyers; committees. GBN |
| 3.5 | Make green building standard practice by 2025, and encourage stretch energy standard and net zero energy buildings. | Supported | Ongoing | Lead By Example; SBC; Evaluating for sustainability code |
| 3.6 | Host a building electrification demonstration to promote high-efficiency electric technologies for heating, cooling and hot water. | Sus/PW | Not Started | -- |
| Priority 4: Create lively, low-carbon neighborhoods | | | | |
| 4.1 | Create vibrant, walkable centers that host a mix of uses, and feature lively public spaces that facilitate social interaction. | DS | In Progress | The recent update to Title 18 incorporated changes. New sustainable development code IP. |
| 4.2 | Encourage infill development within designated regional, neighborhood and employment centers and corridors. | DS | Ongoing | New market tax credits; brownfields grant (Revitalization) |
| 4.3 | Adopt a Comprehensive Regional Housing Strategy. | HAND | Not started | -- |
| 4.4 | Partner with RTC to reduce single-occupant vehicle commutes. | Sus/PW | Not Started | -- |
| 4.5 | Collaborate with RTC on a regional EV infrastructure plan and adopt policies to accelerate EV adoption in the community. | Sus/PW | Not Started | -- |

| | | Dept Lead or Supported | Not Started In Progress Complete Ongoing | Status Details |
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| Priority 4: Create lively, low-carbon neighborhoods (Cont.) | | | | |
| 4.6 | Expand use of shared, micro-mobility alternatives. | Sus | In Progress | Scooters; MM pilot project |
| 4.7 | Engage residents and businesses in campaign to reduce vehicle emissions. | Sus | Ongoing | Social media; micromobility expansion |
| Priority 5: Toward Zero Waste | | | | |
| 5.1 | Develop a Toward Zero Waste plan. | Sus | Not started | -- |
| 5.2 | Increase the number of single-family, multifamily and commercial buildings that subscribe to recycling services. | Sus | In Progress | Developer guide; connecting MF w/MM to solve issue |
| 5.3 | Implement a construction and demolition waste recycling program. | Sus/PW | Not started | -- |
| 5.4 | Compost green waste and food waste. | Sus | In Progress | Working on composting strategies that conform to WM Agreement |
| 5.5 | Expand local recycling infrastructure for processing waste into feedstock materials or new products. | Sus | Not started | -- |
| 5.6 | Develop a plan to reduce litter and illegal dumping. | Sus | In Progress | Partners for Sustainable Nevada |
| 5.7 | Improve communications about waste reduction and recycling to residents and businesses. | Sus | In Progress | WM increasing; Special Events program |
| Priority 6: Healthy, Equitable Urban Forest | | | | |
| 6.1 | Develop an implementation plan to guide tree-planting activities throughout the city. | UF | In Progress | Priority Planting Plan using heat map data |
| 6.2 | Expand the ReLEAF Reno public/private partnership. | UF/Sus | In Progress | Ongoing, various efforts |
| 6.3 | Develop an urban forestry volunteer service program. | UF | In Progress | |
| 6.4 | Adopt best practices in tree planting specifications and preservation. | UF | In Progress | Strategy for preservation IP |
| 6.5 | Encourage best practices in tree care and preservation. | UF | In Progress | " " |
| 6.6 | Collaborate with regional partners to update recommended tree list. | UF | In Progress | Updated 2021 |
| Priority 7: Access to Fresh, Healthy Foods | | | | |
| 7.1 | Collaborate with regional partners to expand acceptance of SNAP/EBT/WIC and senior food assistance benefits. | DS/Sus | Not started | -- |
| 7.2 | Encourage development of grocery stores in underserved communities. | DS/Sus | In Progress | 2021, packaged alcohol ord. |

| Dept Lead or Supported | Not Started In Progress Complete Ongoing | Status Details |
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Priority 7: Access to Fresh, Healthy Foods (Cont.)

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|-----|---|-----|-------------|--|
| 7.3 | Facilitate urban farms, community gardens, farmers markets, community-supported agriculture, raising of farm animals, greenhouses and hoop houses, and food recovery. | Sus | Ongoing | Seek partnerships on grant opportunities; promote Farmer's Markets |
| 7.4 | Provide support to farmers and ranchers seeking to preserve working lands. | Sus | Not started | -- |
| 7.5 | Encourage expansion of direct farm-to-consumer sales. | Sus | Not started | -- |

Priority 8: Safeguard Water Resources

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|-----|---|-------------------|-------------|--|
| 8.1 | Protect sources of water supply and promote responsible water use in partnership with Truckee Meadows Water Authority. | Sus/CMO | Ongoing | Grants; River program |
| 8.2 | Support One Truckee River to protect the health of the river, improve access for residents and visitors, create an engaged community, and ensure collaborative management of the river. | Sus/CMO/ Parks | Ongoing | Regular updates with OTR; collaborate on grants and priorities |
| 8.3 | Promote LID, green infrastructure and sustainable site development that replicate natural hydrology to manage significant storm events. | PW/Sus | Not started | -- |
| 8.4 | Expand beneficial use of wastewater. | US | In Progress | One Water project |
| 8.5 | Showcase and recognize leadership in conservation and sustainable site practices. | Sus | Not started | -- |

Priority 9: Strengthen climate resilience

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|-----|--|------------------|---------|---|
| 9.1 | Assess climate-related risks and develop a regional climate resilience plan. | Sus/Emer Mngr | IP | Working with Chief Ancho and UNR to make part of County Hazard Mit Plan |
| 9.2 | Educate, engage and motivate the community to enhance resilience. | Sus/ Comms | Ongoing | Social media and other; Working with Washoe Health & Human Svcs |

