

Sterling Ranch Energy Action Plan



About this Plan

The Sterling Ranch development community has been founded on sustainability principles, including clean energy and energy efficiency. In the summer of 2020, Xcel Energy Partners in Energy facilitated a series of workshops with the Energy Action Team to develop this Energy Action Plan. With more than 20 years of development ahead, this plan sets specific goals and a concrete implementation plan to achieve the community's desired energy future, building on Sterling Ranch's successes to date in energy efficiency, renewable energy, water sustainability, and technological innovation.

Community Vision

Our community will lead the way to a sustainable energy future.

Goals

- 100% renewable electricity by 2030
- Carbon neutral energy supply by 2040

Forecasted Energy Use

The strategies outlined in the Energy Action Plan focus on reducing future energy use and using cleaner sources of energy as the Sterling Ranch community continues to grow. Using baseline (2019) rates of energy use, build out estimates, and estimated energy use intensities (EUI), a baseline energy forecast was modeled for Sterling Ranch.

Over 20 years, the forecast shows:


10X Total energy use will grow more than 10x to just over **700,000 MMBtu**

6X Total emissions will grow more than 6x to nearly **30,000 MTCO₂e**

70 GWh Total annual electricity use will grow to **70 GWh**

 50% Residential **35 GWh**

 36% Commercial **25 GWh**

14% Electric Vehicles **10 GWh**




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Implementation Phases

To move toward its goals, Sterling Ranch’s Energy Action Team identified two phases for organizing the delivery of its energy strategies. Phase One is the primary focus of the plan, and these strategies are the working elements that will generate concrete actions and impacts.

Phase 1

- ✓ Residential Efficiency & Behavior Change
- ✓ Residential New Construction
- ✓ Residential Renewables & Solar Development

Phase 2

- ✓ Commercial Energy Efficiency
- ✓ Commercial Electrification
- ✓ Residential Electrification
- ✓ Carbon Offsets

Impact and Results of Plan Implementation

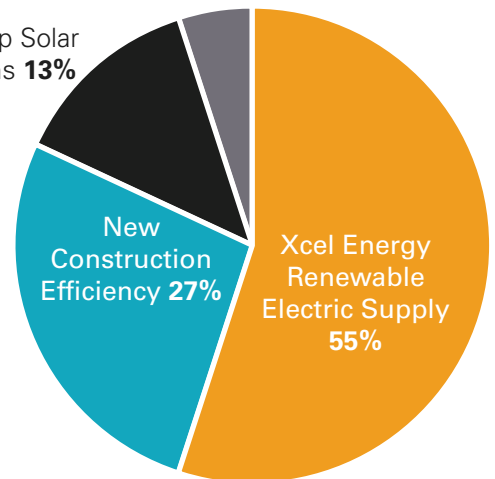
This plan outlines the strategies to achieve 100% renewable electricity by 2030 and charts a path toward carbon neutrality by 2040, shown in the chart to the right. Innovation and technology will be at the forefront of this plan implementation and incorporated throughout, leading the way for the community and region.

Strategy Breakdown, 100% Renewable Electricity Goal

Projected Electricity Use:
29,013,764 kWh

Behavior Change & Post Construction Efficiency **5%**

Rooftop Solar Options **13%**



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