

# The City of Winter Park is Dedicated to Significantly Reducing Its Carbon Emissions Footprint. A Feasibility Study Determined The City of Winter Park Could Achieve a ~90% Carbon-Free Energy Supply for a Minimal Cost Increase.

**Step 1:** Defined carbon reduction objectives and assumptions.

**Step 2:** Defined forecasts of electric loads, distributed energy resources like solar panels, and electric vehicles plus forecast variations.

**Step 3:** Assessed optional energy supply portfolios across future scenarios.

**Step 4:** Recommended a preferred energy supply portfolio and created implementation roadmap.

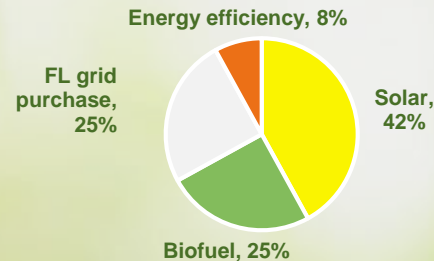
Assessed the cost and feasibility of migrating the energy supply to zero carbon by 2050.



Scenarios included variations in carbon targets and input assumptions.

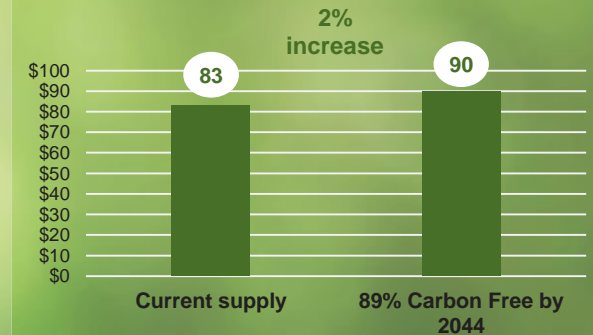


Determined an example of energy sources for an average weekday in 2042.



In 2045, the most economical supply is a mix of solar, reduced fossil imports, and biofuel generation during the day with additional battery charging during the day for use at night.

Levelized the cost of energy per kWh for 2025 through 2044.



Achieving a 90% carbon-free portfolio has minimal impact on the cost of energy versus continuing with business as usual.

*Renewable power is economical, sustainable and paves the way towards a brighter, greener future.*

# The City of Winter Park Adopted the Goal of Reaching 80% Renewables Energy Supply by 2035 and 100% by 2050.

## Implementation Roadmap is Shown Below.



Short

Timeframe:  
Next 3 months

### Actions

**Define** detailed goals and milestones

### Projects

- Define carbon reduction and customer program milestone
- Hire Program Manager to coordinate all aspects to reach the goals.



Mid

Timeframe:  
Next 2 years

**Develop** customer electric vehicles, energy efficiency and flexible demand programs.

- Complete studied for load research, energy efficiency and, flexible demand program design and time of use metering analysis
- Complete a study of all City of Winter Park. Facilities and land for potential solar/storage additions
- Complete an electric vehicle adoption study for City of Winter Park fleet.
- Explore financing for customer rooftop solar and storage.
- Complete an update to the energy supply plan with a technology maturity assessment and new customer programs



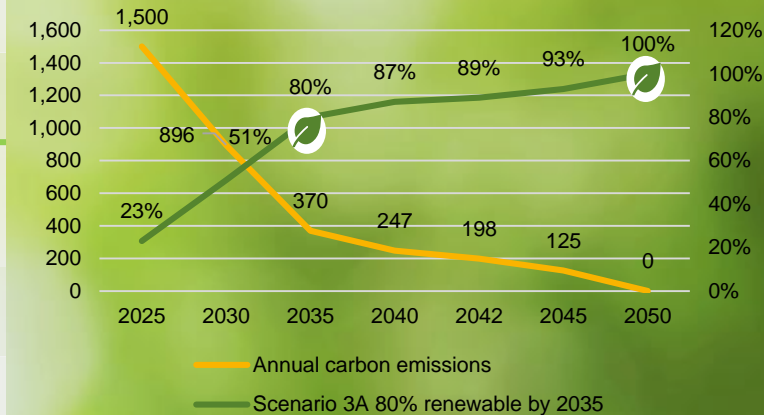
Long

Timeframe:  
Next 4 years

**Implement** customer electric vehicles, energy efficiency, flexible demand and procurement of renewable energy supply.

- Implement a robust set of energy efficiency, flexible demand programs.
- Consider implementation of time of use rates.
- Consider implementation of new cost-based net energy metering rates for customers
- Commit to revising and updating the energy supply plan every 3 - 4 years

Annual Renewable Contributions vs. Carbon Emissions



**+ Reducing greenhouse gas emissions reduces the City of Winter Park's impact on our shared environment**