



Brian Anderson

(27 April 2025, 10am, MO Talk)

Topics

- ✿ Mount Olivet Solar
- ✿ Mount Olivet Lighting Projects
- ✿ Mount Olivet Composting
- ✿ Mount Olivet Community Garden
- ✿ Mount Olivet HVAC
- ✿ Plant-based Diet
- ✿ Electric Vehicles

RAY'S
the **ROOF!**
mount olivet solar



Mount Olivet Solar

- ✦ New flat roof construction (required maintenance)
- ✦ 212 solar panels/123 Kilowatt
- ✦ LSS design/build/fund
- ✦ MO buys solar power from LSS for 8 years
- ✦ MO purchases solar panels for 5% of cost in Year 8



Roof replacement

- ✦ Flat part of roof was at end of service life and needed replacement
- ✦ An advanced, white colored roof material was used that reflects solar energy with two benefits:
 - Keeps the roof cooler to reduce air conditioning needs
 - Works with the bifacial solar panels to generate more electrical energy



Lighting Projects

- ✦ Parking Lot LED Lighting
- ✦ Lower Level LED Retrofits (Fluorescent lamp replacement)
- ✦ Sanctuary Lightning LED Retrofits
- ✦ Future LED Retrofits (rest of building)



Mount Olivet Commercial Composting

- ✿ Methane from landfills is a major source of GHG emissions.
- ✿ Commercial Composting keeps biological waste out of landfills where it would otherwise become methane.
- ✿ Plymouth and other cities have a commercial composting curbside service you can sign up for!



Mount Olivet Giving Garden

- ✿ Supplies community meal
- ✿ Eliminates transportation emissions (Eating locally sourced food)
- ✿ Increases availability of plant-based foods



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Mount Olivet Smart Thermostats

- ✦ Smart thermostats enable heating and cooling areas only when needed, saving energy
- ✦ Utilities can remotely control smart thermostats during the hottest hour of the year to peak shave grid loads; mitigating new power plant construction need
- ✦ Savings are passed on to customers



Mount Olivet HVAC (future)

- ✦ Currently heating with methane gas furnaces on roof and in basement
- ✦ Heat pumps are up to 4x more efficient and take advantage of cleaner grid electricity from renewables
- ✦ MOPLY participates in Xcel clean energy rate plan



Plant-based Diet

- ✿ Project Drawdown second (scenario 1) or third (scenario 2) most effective climate change mitigation solution
- ✿ Win-win from improved health span and life span
- ✿ Delicious! Check out the vegan meal at 12pm in the Fireside Room



Electric Vehicles

- ✿ Transportation is the top CO₂e emissions source for Minnesota residents
- ✿ There are currently 69 models available from 30 different brands
- ✿ Charging at home means starting every day with a full battery
- ✿ 52,370 fast chargers at 12,400 locations in 50 states and in-car automatic routing mean road trips can be simpler than refueling with a gas car



Project Drawdown

- ✦ Contains a solutions library of the top 100 climate solutions that are
 - currently available,
 - growing in scale,
 - financially viable,
 - able to have a net positive impact,
 - quantifiable under different scenarios.
- ✦ Top two solutions (Scenario 1)
 - Reduced food waste
 - Plant rich diets



**the RAYS
ROOF!**



Our future's so bright, we gotta wear shades!



MOPLY Solar web page
<https://www.moply.org/solar-at-mo>

