

MassMutual Financial Group Springfield, MA

Sustainability Program
- Electric Vehicles Charging Program



We'll help you get there.

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MassMutual's Sustainability Program

The Three Pillars of MassMutual's Sustainability Program

- Conservation
- Sustainable Operations (LEED-EB)
- Renewable Energy (solar)

MassMutual Sustainability Program Highlights

Conservation

- “The greenest energy is the one you never use”
- Use and promote EnergyStar-rated equipment
- Energy, building automation and lighting programs
- Smart building technologies and controls

MassMutual Sustainability Program Highlights

Sustainable Operations

- Leadership in Energy and Engineering Design for existing buildings
 - Silver Designation 2011
 - Gold Designation 2016
- EnergyStar rating of 91
- Low VOC paint, cleaning products, recycling, etc.
- Support employee transportation
 - Promote employee EV use
 - Switched from electric scooters to tricycles
 - Vanpool, commuter, carpool programs

2011 USGBC Plaque - Silver



2016 USGBC Dynamic Plaque - Gold



2016 USGBC Dynamic Plaque - Gold



MassMutual Sustainability Program Highlights

Renewable Energy

- 3.5 acre solar array on the roof of the main building
- Contains over 1,700 panels
- Reduces carbon emissions by 4,100 tons
- Generates over 425,000 kW per year
- Offset \$325,000 per year in expense
- Greater employee engagement
- Increased brand/reputational benefit

Solar Panels



Campus Solar



Solar Dashboard

MassMutual - 356.65 kW: Solar

System Size: 356.65 kW DC
Generating Since: August 4, 2010
Last Updated: 9:00am Feb 15, 2017

Home Graph How Solar Works



Overcast 36°F 6 mph

TOTAL ENERGY GENERATED EQUALS

10,529

60 Watt Bulbs for 1 Year of 8 Hour/Day Use

TOTAL CO2 OFFSET EQUALS

33,202

Trees

TOTAL ENERGY GENERATED EQUALS

1,324

Tons of CO2 Saved

TOTAL ENERGY GENERATED EQUALS

149,413

Gallons of Gas Saved

Electric Vehicle Chargers

EV Chargers

- Program began in 20xx and continues today
 - “If you build it, he will come” – *Field of Dreams*
- 64 total chargers between 3 local campuses the Springfield, Mass. area
 - EV parking designated for 1% of total parking spaces
 - 100 (1.5%) spaces ready for EV charger installation
 - 400 (6%) spaces prewired and ready for EV charger installation

Charger Locations



EV Employee



Springfield Campus EV Locations

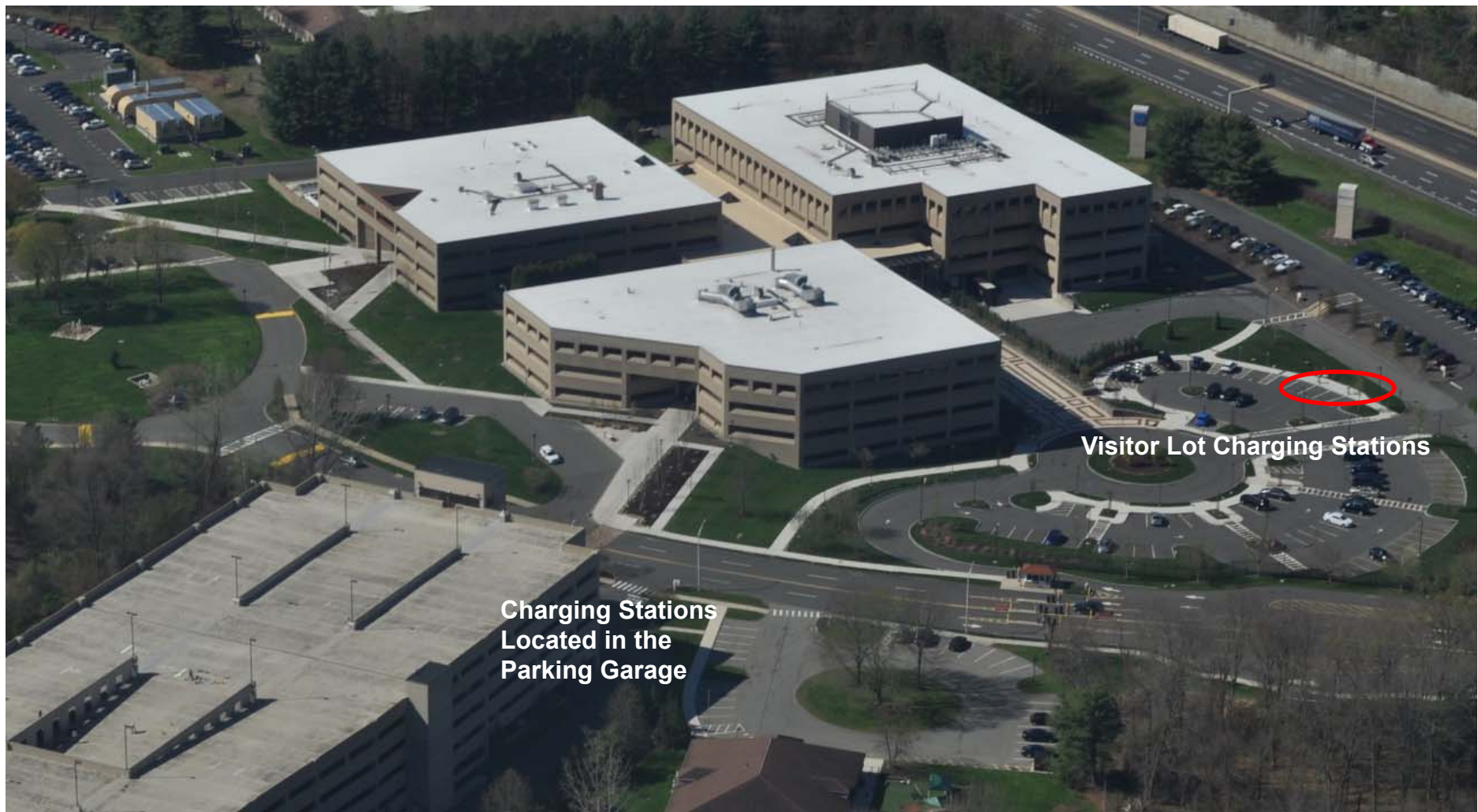


Benton St Lot
Charging Stations

Visitor Lot Charging Stations

South Building Charging Stations

Enfield Campus EV Locations



Charging Stations
Located in the
Parking Garage

Visitor Lot Charging Stations

EV Chargers

- All of the chargers on the three campuses use the common SAE J1772 charger interface
 - The majority of EVs on the road use this type of interface
- The EV's are powered from a 30 Amp 240 Volt line
 - Cars from all of the major manufactures will charge within 8 hours

EV Employee Highlights

- **Reduced Environment Impact:**
 - Programs help employees and visitors reduce their impact
- **No Charge:**
 - There is no charge for this service, we consider this an employee benefit
- **Close Parking:**
 - Participants get preferred parking due close proximity to entrances
- **Employer of Choice:**
 - We are considered an employer of choice as a result of EV program
- **Visible Commitment:**
 - Demonstrates our commitment to sustainability
- **Partnerships:**
 - We have partnered with our Federal Credit Union to promote loans to purchase EVs along with car dealers offering test drives on the campus



We'll help you get there.®

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