

Funding Ideas for Undergrounding/ Partial Undergrounding through MG&E

MG&E's Energy 2030 Framework has a number of invitations to work with residents to conserve energy and limit peak-load growth.

“Increasing energy efficiency and conservation as an important energy resource by working with customers to reduce growth in energy use. Reducing electric system peak will help us build and maintain an electric system that is only as big as we need to meet customer load and reduce the generating and distribution capacity that is needed only for times of peak use. This will save costs for all customers in the long-run.”

With the goal of reducing energy spent on running air conditioners which are the primary driver of peak load (a) and given a canopy tree, depending on its placement, has been shown in a multitude of studies to save as much as 20% on a home's cooling cost (b) and with the knowledge that the densest urban residential areas of cities have a higher cooling demand than suburban and rural areas due to heat retention in pavement and buildings (c) and further that there are few available sites for planting canopy trees on private property in the most densely built neighborhoods, therefore, the city relies heavily on canopy trees in the street terrace to aid in cooling these parts of the city.

Given the extensive tree-utility conflict in Madison's urban neighborhoods and that the current replanting policy to minimize these conflicts precludes planting large stature canopy trees in street terraces, therefore partnering with MG&E to develop a long range and systematic program to underground the primary power line is in the best interest of both the city and the utility.

Two ideas which would fund such a program could be:

1. “Trust Fund for Trees” modeled after MG&E's existing Green Power fund which is voluntarily paid into by customers through an upcharge on their monthly bill. Contributions would fund undergrounding of the primary power line to facilitate the city replanting canopy trees in the street terrace.
2. “Tree Investment Program” which would be a long-term loan program wherein the cost of partial undergrounding is paid by residents in a project area over time through a special assessment on their MG&E bill. The charge would be a steady monthly amount over a designated number of years. If ownership of the property changed, the assessed charges would stay with the property address.

- a. <https://www.mge.com/customer-service/home/power-control.htm>

“Central air conditioners account for more electricity use during high-demand periods than any other appliance.”

- b. http://actrees.org/files/Resources/factsheet_energy.pdf

<http://energysavingtrees.arboday.org/#About>

When planted properly, a single tree can save a homeowner up to 20% on energy costs.

- c. <http://webs.csu.edu/cerc/documents/EnergySavingPotentialofTreesInChicago.pdf>

The need for summertime cooling is greatest in Chicago's most densely developed areas, where paving and buildings absorb and trap heat to create mini-heat islands. Air temperatures can be 5° to 10°F (2° to 6°C) warmer in these "hot spots" than in cooler park or rural areas.