

MGE ELECTRIC DISCUSSION

City of Madison

Urban Forestry Task Force

May 31, 2018

PSCW Legal Requirements

- MGE reviews all projects for justified project spending
- MGE spending is subject to PSCW review
- PSC 113.1008 states that customer-requested modifications to the distribution system are to be paid for by the customer

System Design Factors used for Undergrounding

- Space constraints
- Age of facilities
- Past reliability indices
 - How often have affected customers experienced outages?
 - How long are the associated outages?
- Trimming cycle costs

MGE History of Undergrounding

- Infancy in 1993 - Fox Avenue
- Projects centered around collaboration with City road reconstructions
- City covers the project costs above MGE's requirement for road right-of-way relocations

Cottage Grove Road - 2016



Equipment Placement

- Electrical boxes need to be placed on private easement
 - physical and legal protections
- High capacity electric lines may require large switchgear boxes and more cables
- Private easements (for equipment) are necessitated, but cumbersome to negotiate or even obtain

Padmounted Switching Equipment



Partial Undergrounding Concept

- Relatively new concept
- Poles are not removed
- High voltage lines (highest wires) are buried
- Overhead services to homes remain as is
- Communication wires remain as is

Partial Undergrounding



Joint Facilities

- Communication companies (ATT, Charter, private fiber providers) occupy the lower area of the pole
- These companies need to be accommodated for a total pole line removal
- Compensation is often expected where road project conflict is not involved

Complex Contractor Work



Complex Contractor Work



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