

Metro Transit Solar Portfolio



Transportation Committee

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Presented by

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Metro Transit, Engineering and Facilities



Thrive 2040 Outcomes: Sustainability

- **Operating the region's wastewater treatment and transit systems sustainably**
 - Increase energy efficiency.
 - **Use of renewable energy sources.**
 - Reduce greenhouse gas emissions from Council operations.
 - Conserve and protect water resources.
 - Reduce solid waste generation.
 - Reuse and recycle materials.



Project Overview

- Behind the Meter
 - *6 Metro Transit Rooftops (4.7MW)*
 - *Regional Maintenance Facility (300 kilowatts (kWh))*
- Community Solar Gardens (CSG)
 - Subscriptions: 40% MCES and 40% Metro Transit
 - *Empire Wastewater Treatment Plant (5 MW)*
 - *Seneca Closed Landfill Site at Plant (955 kWh)*
 - *Woodbury Lift Station (679 kWh)*

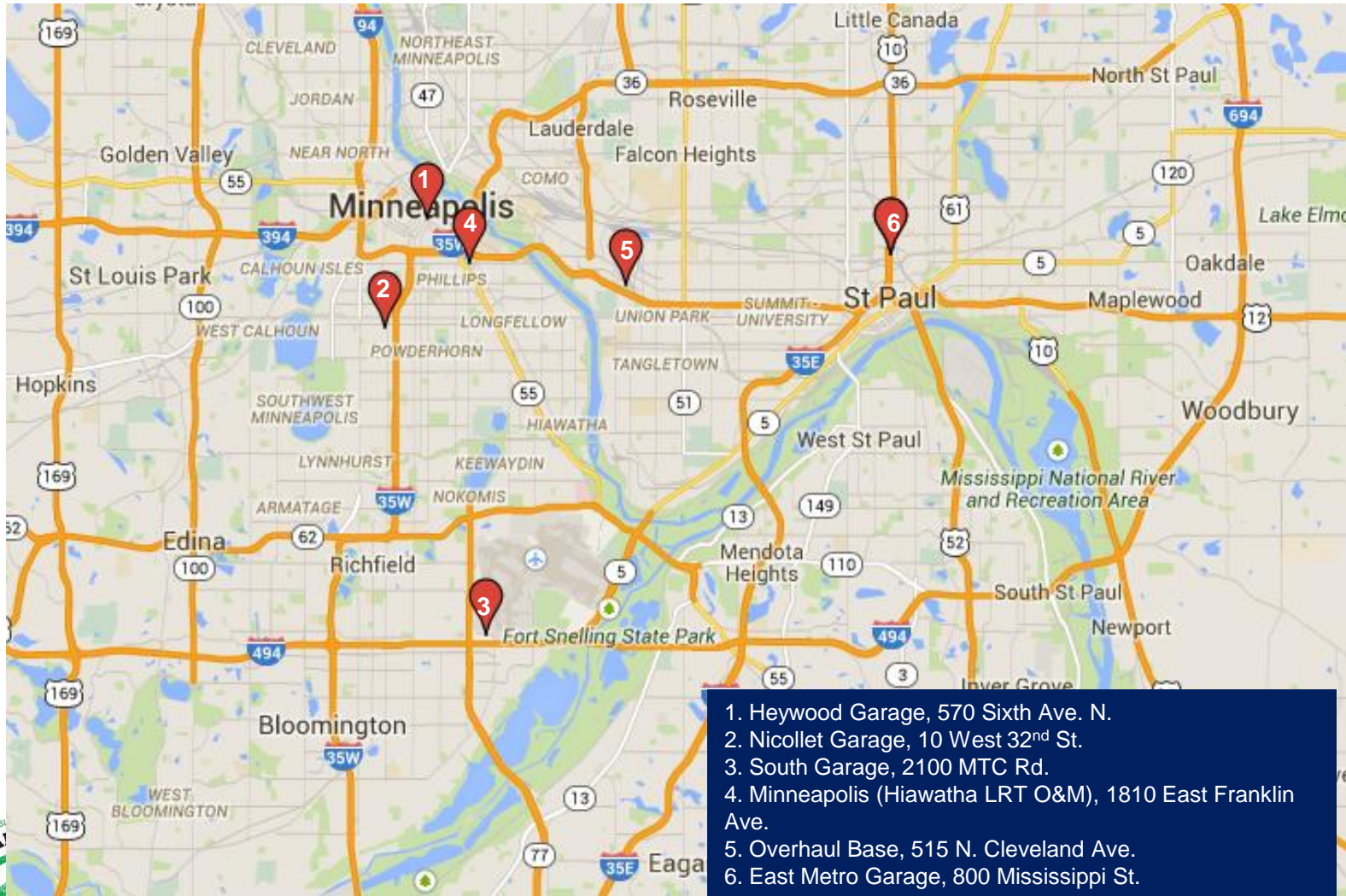


Behind the Meter Solar Facilities

- Council pays developers for power produced through a Power Purchase Agreement
- Facility License Agreements to developer
- Systems connected directly to Transit facility
- Developer installs and operates the solar arrays
- No up front capital investment into solar arrays
- Pay back with energy purchase

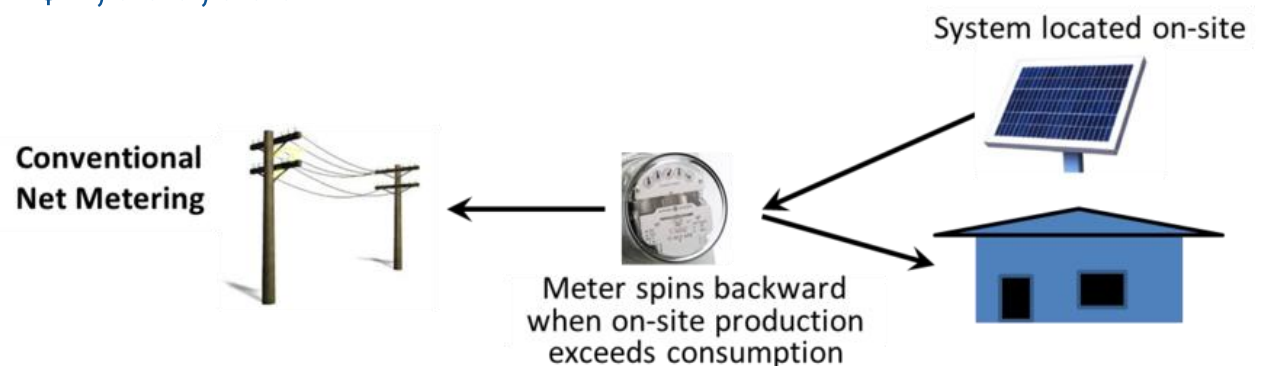


Roof-mounted Solar sites



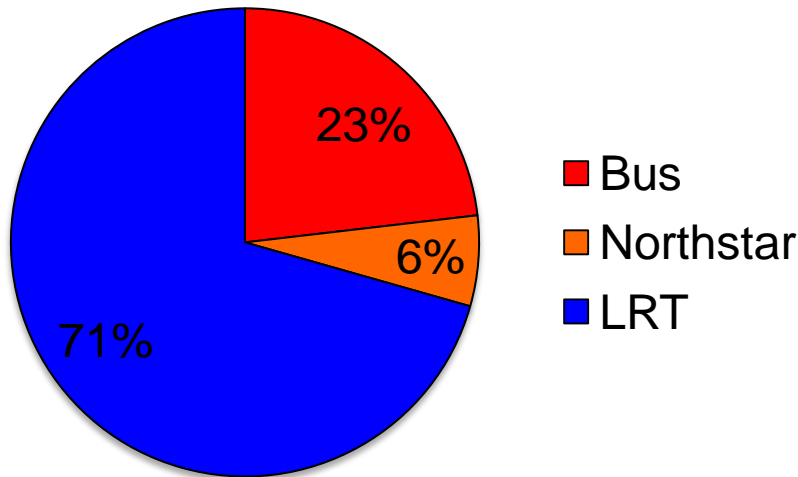
Behind the Meter RFP

- Joint procurement with ES/MT to purchase electricity at a locked rate for 25 years
- FTH, Nicollet, South, Mpls LRT O&M, OHB, EMTF
- Roof top solar arrays totaling 4.7 MW AC
 - 22,000 solar panels
- Generates 6.7 MWh annually
 - 50% of electrical consumption
- Useful life 40 years
- Estimated savings \$4,000,000 (25yr)
- Operational 2016

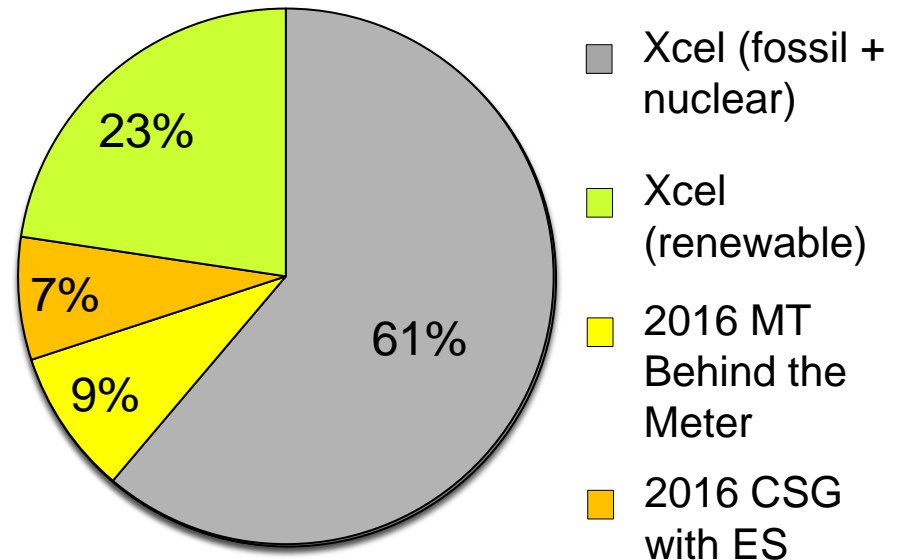


2016 Electrical Profile Metro Transit

Electric Usage (by Mode)
75,000,000 kWh total



Electricity (by Source)
Total 75,000,000 kWh
Solar 12,450,000 kWh



Proposed Action

- That the Metropolitan Council authorize the Regional Administrator to negotiate and execute Power Purchase Agreements and Facility License Agreements with Solar City Corporation



Questions?



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