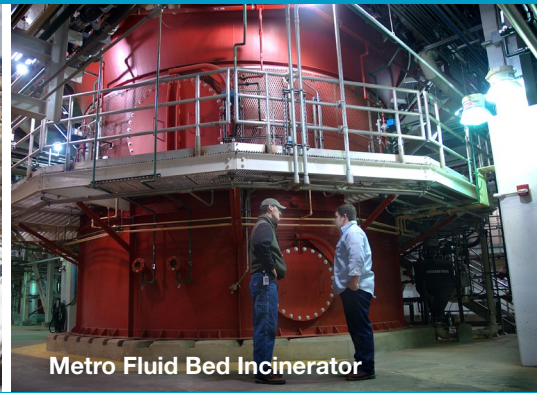


Working towards MCEs' energy goal

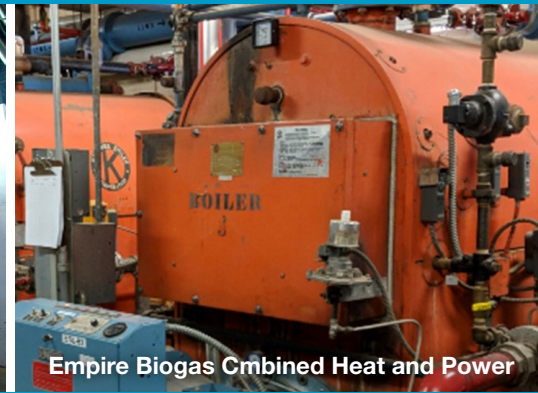
A HISTORY OF SUSTAINABILITY PROGRESS



Blue Lake Solar Facility



Metro Fluid Bed Incinerator



Empire Biogas Combined Heat and Power



Metro High-Efficiency Lighting

Timeline

MCES is committed to reducing its carbon footprint and saving ratepayers money through the energy component of the Council's wastewater sustainability policy. From 2008 - 2015 alone, MCEs its energy purchases by about \$4 million per year through conservation efforts and onsite electrical generation. MCEs set a further goal to reduce electrical purchases by 10% between 2015 and 2020. If met, this goal will result in an additional \$1 million annual savings in electrical costs.



ACTION/PROJECT

2004 - 2006	Empire Biogas-Based Building and Process Heating	Eagles Point Effluent Heat Recovery	Metro Fluid Bed Incineration and Combined Heat and Power Project	Metro Aeration Dissolved Oxygen Controls
2007 - 2008	MCEs sets goal to reduce energy purchases by 15% below 2005 levels by 2010		Metro Enhanced Diffuser Cleaning	
2009 - 2011	Metro Tunnel High Efficiency Fluorescent Lighting Retrofit		Metro 408 F&I2 Building begins decommissioning	
2012 - 2013	Council adopts Environ. Sustainability Policy and Sustainability in Energy Use & Emissions Procedure	Blue Lake Digesters	Metro Aeration Header Pressure Reduction	Seneca DO Controls
2014	MCEs completes development of Energy Master Plan		Blue Lake Digester Mixing Optimization	Metro RAS WAS VFDs
2015 - 2016	Water Resources Policy plan adopted with energy part of sustainability policy	Blue Lake Solar Facility	Metro Channel Air Optimization	Metro Outdoor Lighting LED Retrofits
2017	MCEs-sited Community Solar Gardens at Empire and Blue Lake		Building Automation Controls at Metro Plant	
2018	First Industrial Pretreatment Incentive Program contract executed	Empire Influent VFDs	MCEs-sited Community Solar Garden at Seneca Ash Landfill	MetroPremium Efficiency Transformer
Current	Biogas Combined Heat and Power and Bioler Upgrade	Empire High Strength Waste Receiving	Blue Lake Scrubber Waste Heat Recovery	Seneca Scrubber Waste Heat Recovery

PARTNERSHIP

Council joins the Climate Registry as a founding member	Xcel Partnership Agreement identifies energy savings opportunities
MCEs joins Metropolitan Energy Policy Coalition	
University of Minnesota JPA - Framework for Collaborating on Energy Research Projects	
Council Leads Regional Community Solar Garden Collaboration	
Council joins Sustainable Growth Coalition	
Council and Xcel Energy Sign Green Partnership MOU pledging Council to buy 100% renewable electricity from Xcel by 2040	

AWARD



AWARDS LEGEND

- Xcel Energy Process Efficiency Partnership Award
- Gov. Dayton's Continuous Improvement Award for energy savings initiatives
- Environmental Initiative's Community in Action Award for solar garden initiative
- Utility of the Future Today for energy reduction/collaboration
- Xcel Energy Gold Award
- Xcel Energy Highest Electric Savings (cumulative)
- Minnesota State Government Innovation Award for solar garden initiative