Madison Sustainability

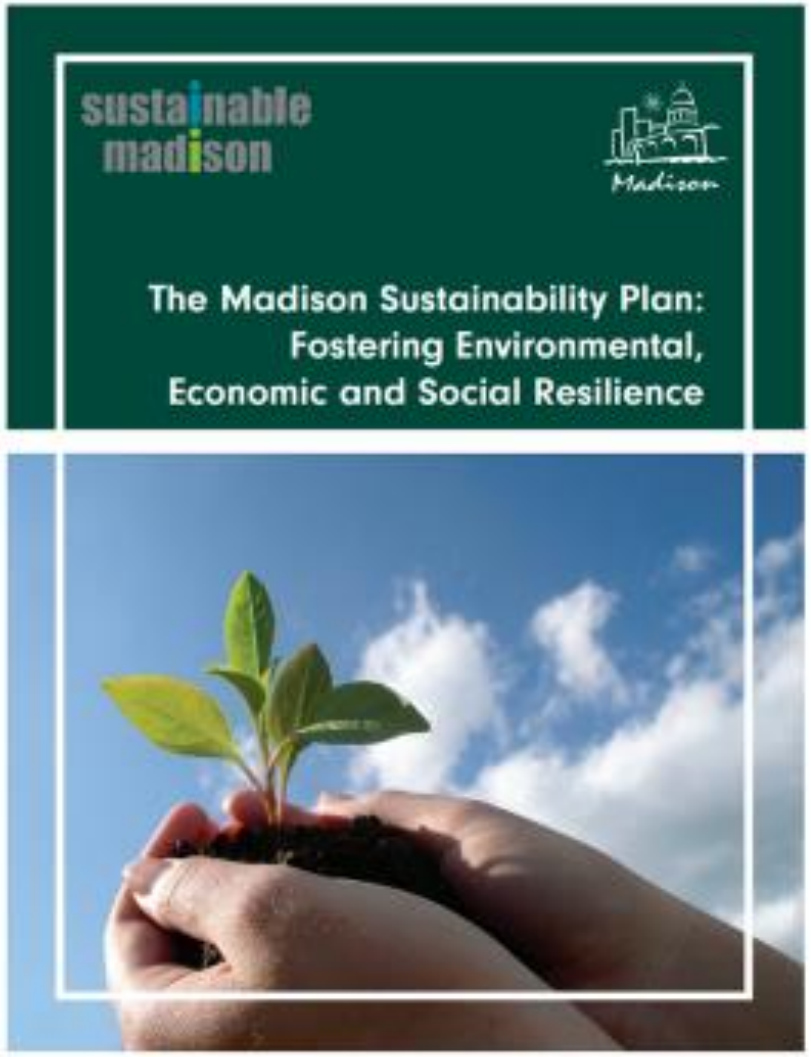
Solid Waste Advisory Committee

Thursday, May 2, 2019

Madison Sustainability

https://www.cityofmadison.com/sustainability/documents/SustainPlan2011.pdf

Madison Sustainability



Natural Systems

Goal 6: Prevent Solid Waste from Entering Landfill
Plan, design and construct an anaerobic digester by 2015 and manage an anaerobic digester for all organic waste by 2017.

Actions:

- Develop programs to eliminate organics from landfill.
- Continue to develop a waste pilot project and construction of anaerobic digesters that capture energy from food waste and other organic waste.
- Establish municipal curbside pick-up of organic waste

Carbon & Energy

Goal 5: Obtain 25% of Electricity, Heating, and Transportation Energy from Clean Energy Sources by 2025

Actions:

- Divert urban organic wastes into fuel sources for local bio-digester energy production.

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https://https://imaginemadisonwi.com/document/comprehensive-plan-adopted

Green & Resilient

Strategy 8: Reduce Landfilled Waste

- Actions: Establish a citywide food scrap recycling program.

Strategy 3: Increase the use and accessibility of energy efficiency upgrades and renewable energy.

- Actions: Implement the Energy Plan to reach the goal of 100% renewable and zero-net carbon emissions.

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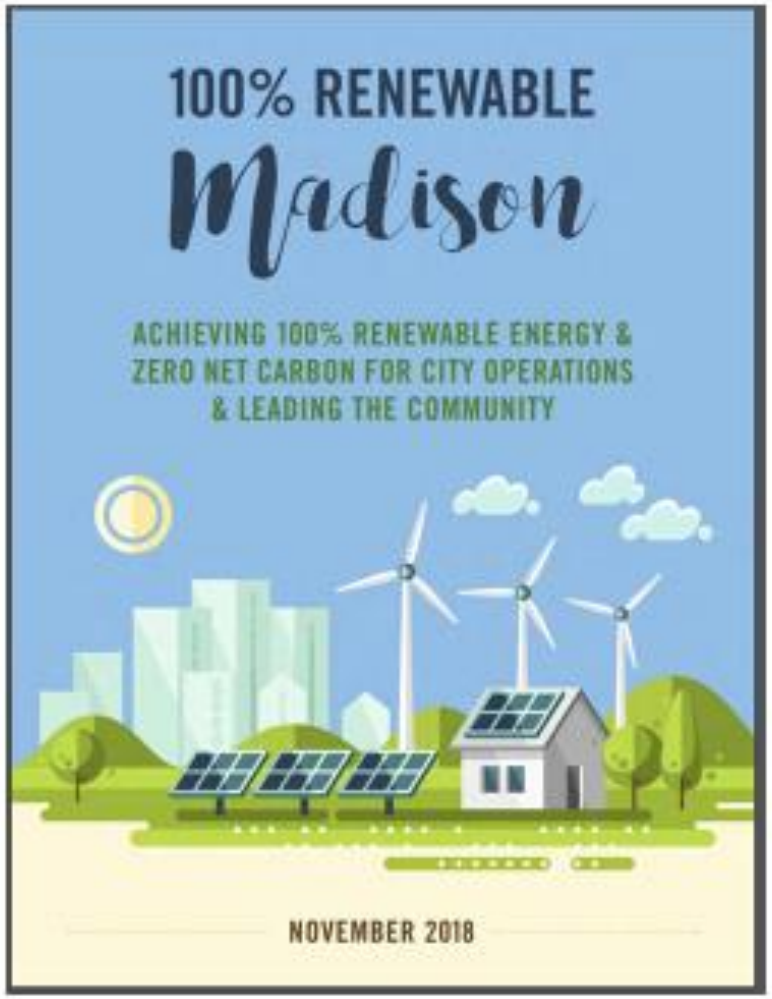

SCENARIO 3: 100% Renewable Energy and ZeroNet Carbon by 2030

- 55% carbon reduction with 25% self-generated renewable energy
- 45% RECs and carbon offsets
- $95M investment over 13 years; IRR 17%
- Cost savings to city of $78M by 2030
- Reduce total carbon emissions by 426,000 tons by 2030
- Societal co-benefits range from $21M - $162M by 2030

https://madison.legistar.com/View.ashx?M=F&ID=7072081&GUID=1129163D-F7C1-41D8-9694-AA9EFFCA66FF

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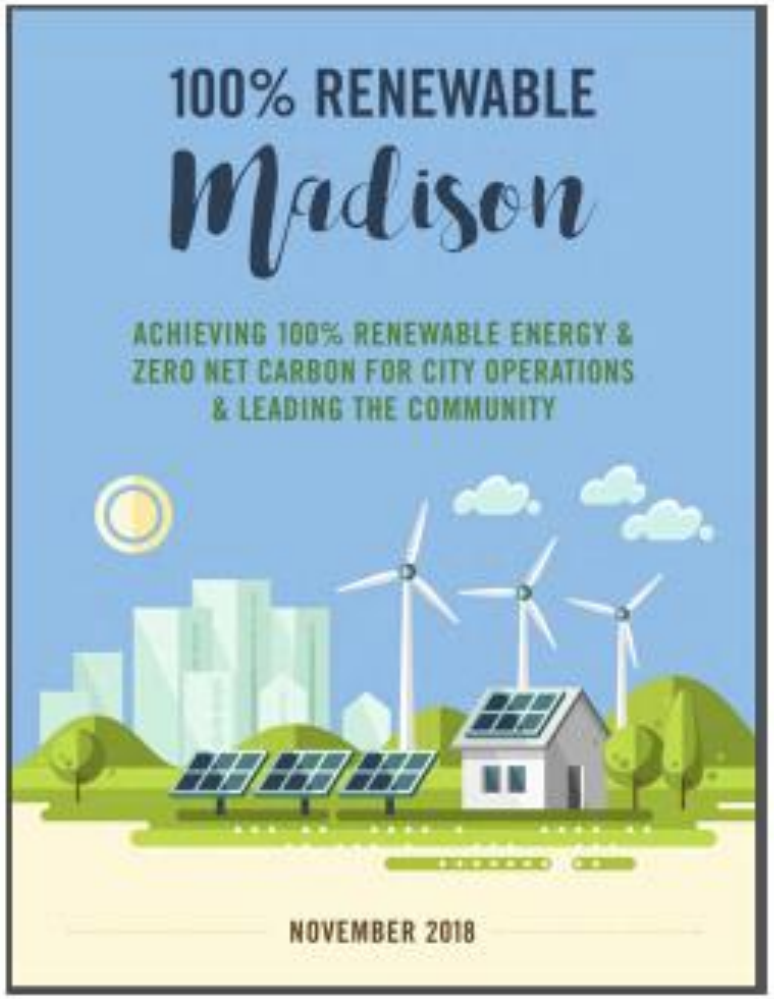

4.1.12 Landfill CNG Pilot (pg. 57)

- **Vehicle Fleet Diesel (Municipal, 2016)**
  CO2 (MT) = 6841.3 (8%)

4.1.16 Future Opportunities for Local Biogas Production (pg. 59)

- **Solid Waste (Community, 2014)**
  Organics = 20-25% Waste Stream
  CH4 (MT) = 178.55 (GWP 28-36)

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News Releases

News Releases from Region 05

EPA to Award $39,000 to Madison for Food Waste Management and Infrastructure Project

04/09/2019

Dane County begins turning gas from landfill's trash into vehicle fuel

SHELLEY K. MESCH smesch@madison.com Apr 26, 2019

Robert Kinzler, a design engineer with BIOFerm Energy Systems, describes the process of removing carbon dioxide and other excess materials from natural gas sourced at the Dane County Landfill. Compression is used to extract the carbon dioxide, which then goes into the two large, spherical bladders. The county must clean the gas before it can be sold as vehicle fuel.

SHELLEY K. MESCH, STATE JOURNAL

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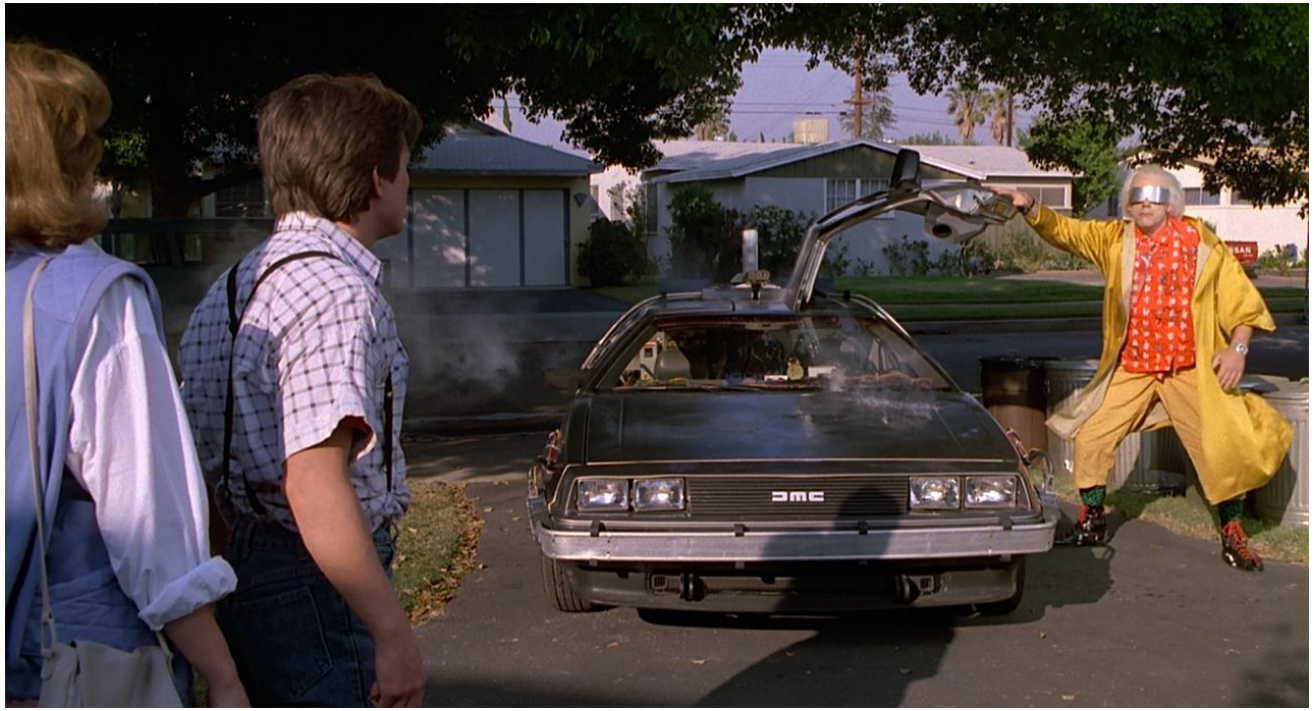

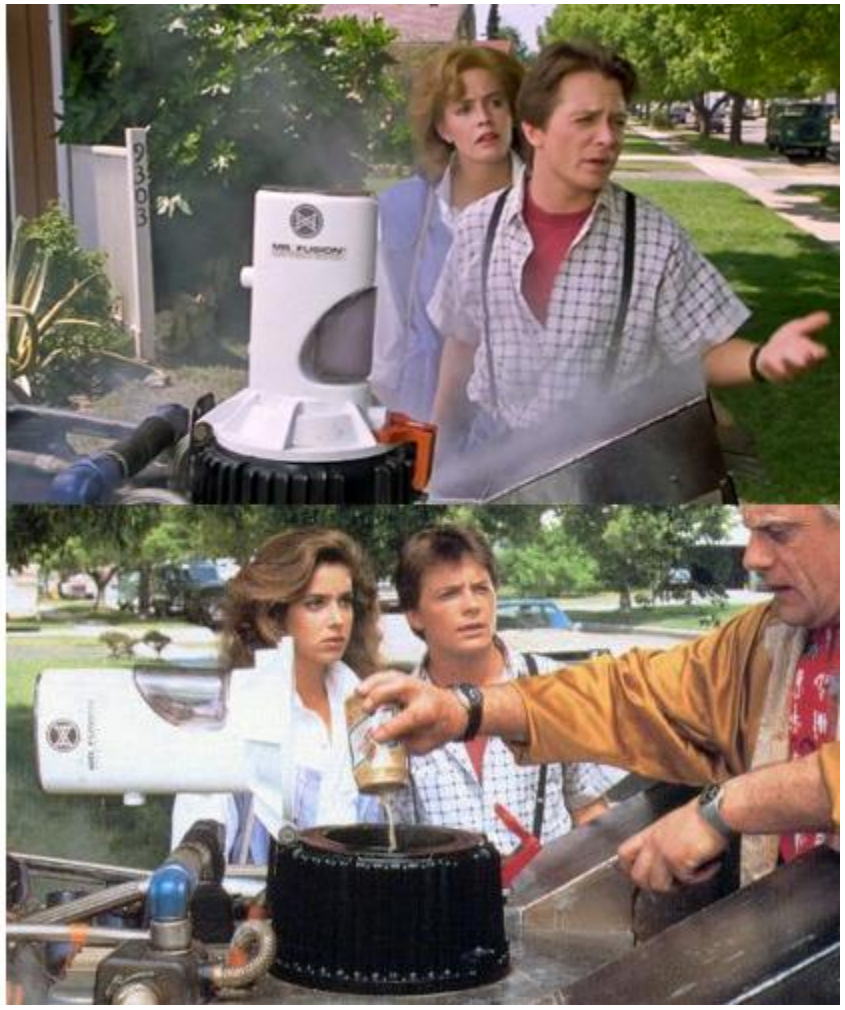

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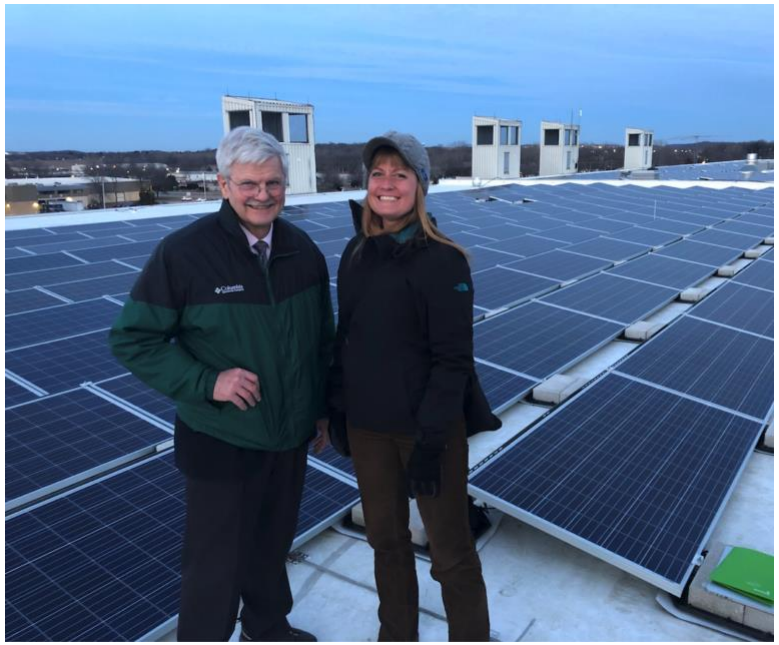
THANK YOU! – Q & A



Source: RENEW Wisconsin

Stacie Reece
Sustainability Program Coordinator
Engineering Division
210 MLK, Jr. Blvd. CCB Room 115
Madison, WI 53703-3342
sreece@cityofmadison.com
608-261-9823