

WHAT DOES A 100% RENEWABLE ENERGY MADISON LOOK LIKE TO YOU?

*PUBLIC KICK-OFF MEETING
SEPTEMBER 27, 2017*



NAVIGANT

WELCOME

Envisioning 100% Renewable Energy



Mad'iSUN

SOLAR ENERGY PROGRAM



THE WORLD HAS CHANGED -- MADISON IS ALL IN



WE ARE STILL IN



TONIGHT'S AGENDA

- Welcome
- Project Description/Tour of Renewable City Efforts (5 min)
- Thought Piece: Envisioning the Goal (5 min)
- Public Comment #1 - Reducing Energy Use (20 min)
- Public Comment #2 - Renewable Energy (20 min)
- Public Comment #3 - Transportation (20 min)
- Public Comment #4 - Community Connections (20 min)
- Special Guest (20 min)
- Next steps and wrap up (10 min)

WE WANT YOUR INPUT FOR 100% RENEWABLE MADISON

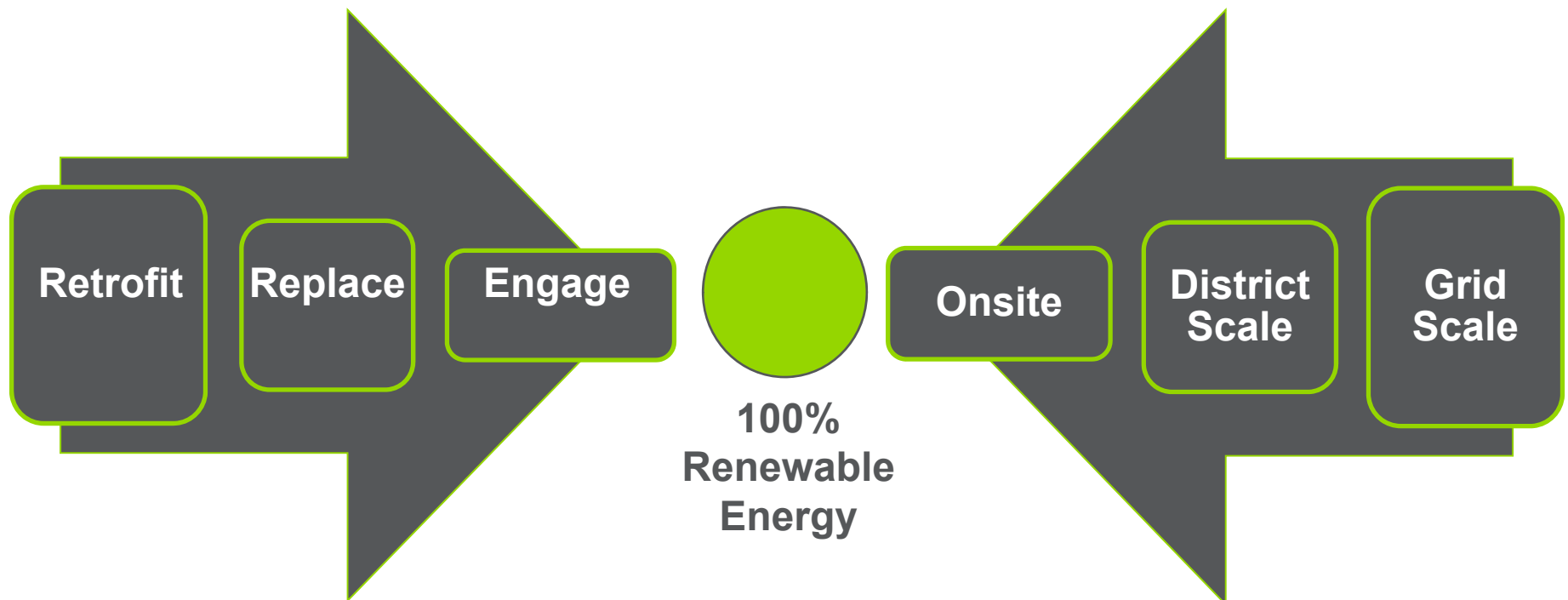
Submit comments at this link through Nov 17th



ACHIEVING 100% RENEWABLE ENERGY – NET ZERO CARBON

Reduce Consumption

Add Renewable Energy

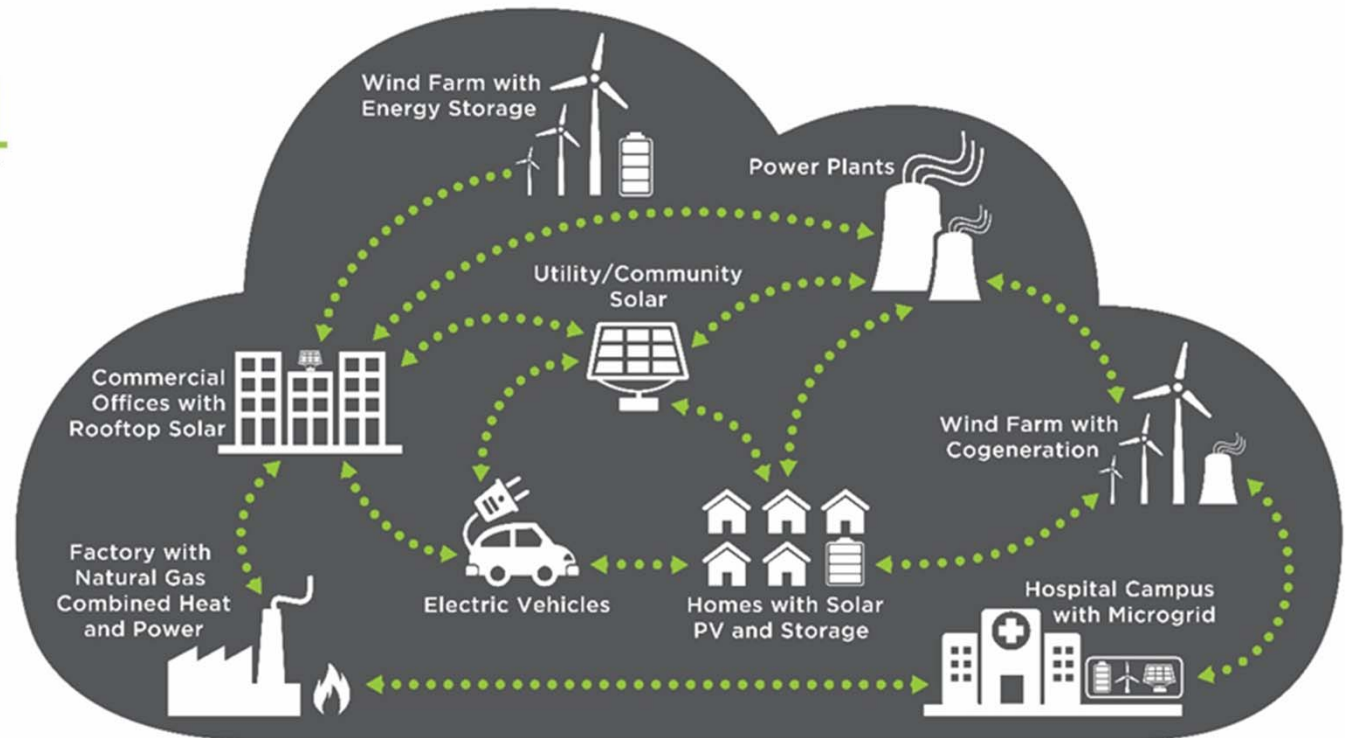


HOW DO WE ENACT ENERGY TRANSFORMATION?

TODAY: ONE-WAY POWER SYSTEM



EMERGING: THE ENERGY CLOUD

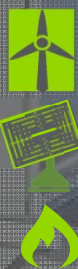


Source: Navigant



AUSTIN, TEXAS HAS ACHIEVED 31% RENEWABLES AND
LOOKING TO INCREASE TO 55% BY 2025.

Energy Mix



Wind
Solar
• Biomass

Achievements

- 77 MW of local solar.
- Green Choice program
- Energy efficiency



GRAND RAPIDS, MICHIGAN – REDUCING ENERGY CONSUMPTION THROUGH HIGH PERFORMANCE BUILDINGS

Energy
Efficiency

- Decreased consumption 10% since 2006.
- Leader in energy efficient building.

Achievements

- 6 Grand Rapids public schools are LEED certified.
- High participation in Battle of the Buildings.



COLUMBUS, OHIO PURSUING SMART CITY STRATEGY WITH RENEWABLES AND TRANSPORTATION



**SM
RT**
COLUMBUS

Smart
is just
the
START.

Mobility

- Smart Mobility Hubs
- Mobility Assistance

Traffic Engineering

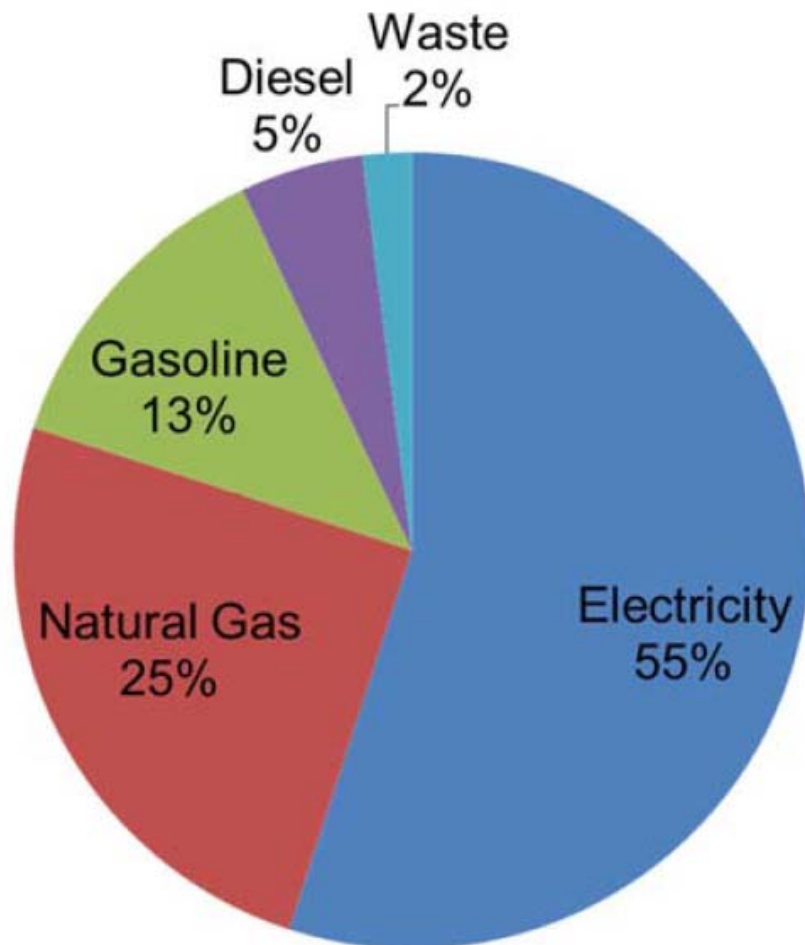
- Connected Vehicles
- Multimodal Trip Planning
- Enhanced parking

Charging Infrastructure

- Investment from AEP Ohio
- DC fast chargers, level 2 smart chargers



SO WHAT DOES THIS MEAN FOR MADISON? MADISON'S ANNUAL CARBON FOOTPRINT: BY FUEL

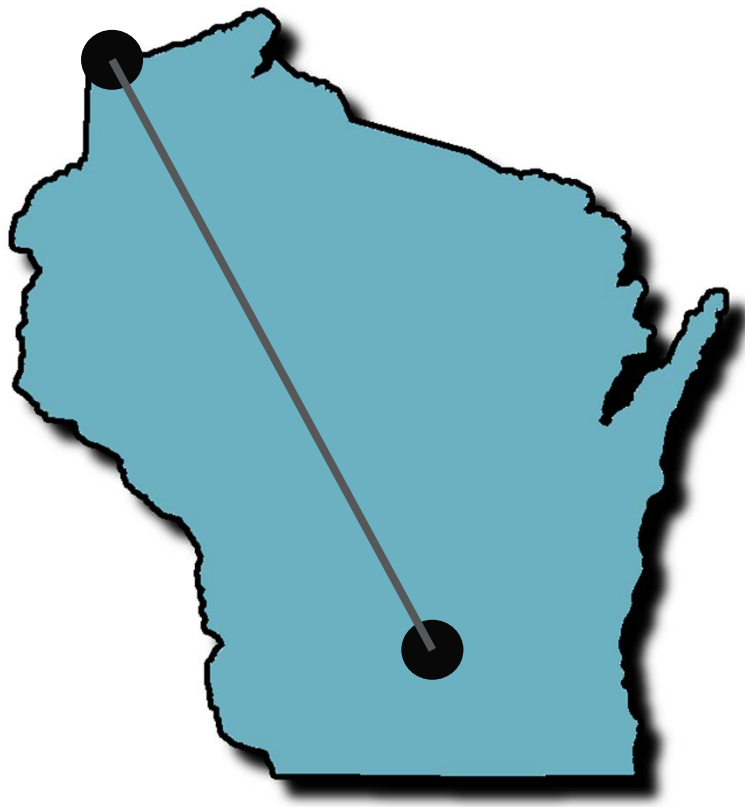


Total Emissions
6,200,000 CO₂e (tons)

**Data obtained from 'Madison Community Operations 2014 Carbon Emissions Inventory'*

SO WHAT DOES THIS MEAN FOR MADISON? CITY OF MADISON'S ANNUAL CARBON FOOTPRINT

6,200,000 CO₂e (tons) = 30,000 rail cars of coal stretching from Madison to Superior each year.



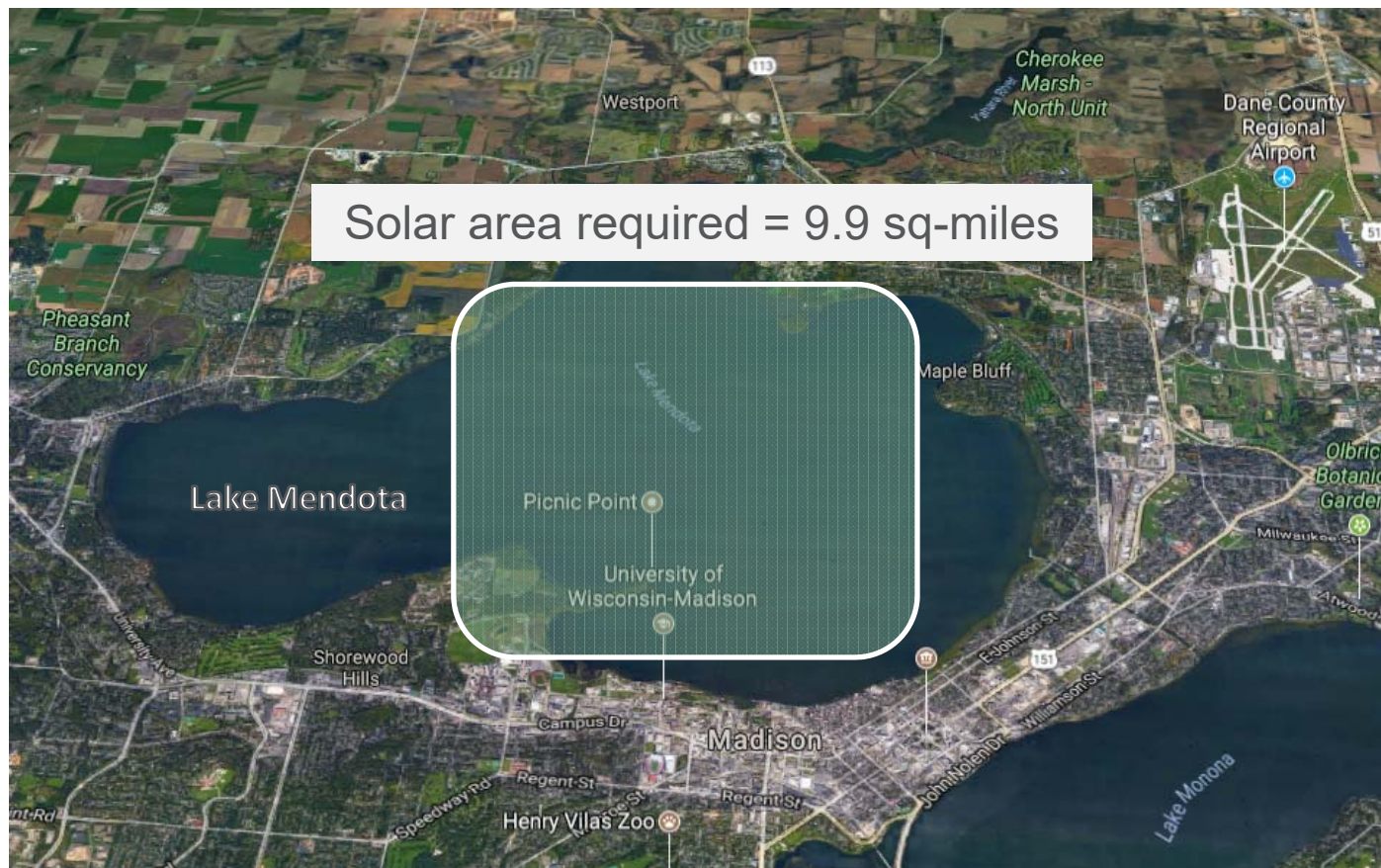
100% RENEWABLE THOUGHT EXPERIMENT

- How many wind turbines would Madison need to produce all electricity needs from wind power?



100% RENEWABLE THOUGHT EXPERIMENT

- How much solar would Madison need to produce all electric needs from solar power?



ENVISIONING THE GOAL – THOUGHT EXERCISE AND COMMENT

What is your day like?

What is your home like?

What about your workplace?

What transportation do you use?

Any other ideas?

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PUBLIC COMMENT #1 - REDUCING ENERGY USE

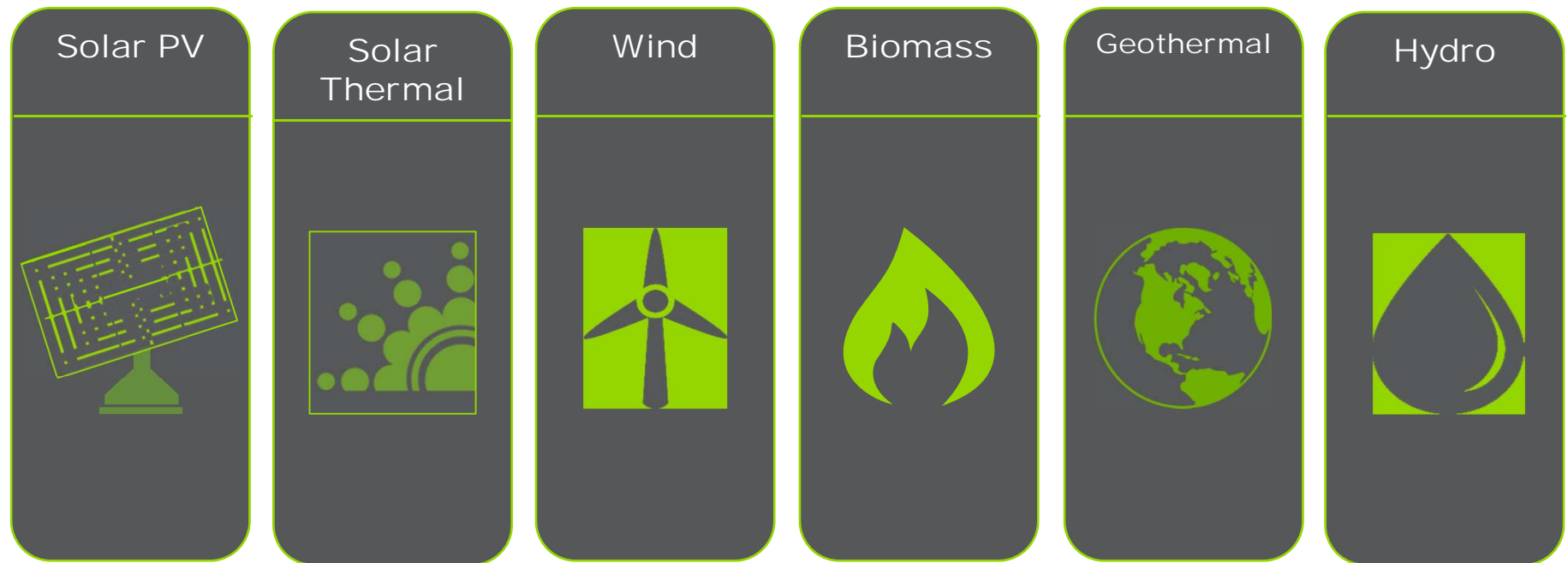
- What opportunities should we consider to reduce energy consumption?

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PUBLIC COMMENT #2 - RENEWABLE TECHNOLOGIES

What technologies should we consider for achieving 100% renewable energy?



PUBLIC COMMENT #3 -- WHAT STRATEGIES SHOULD WE CONSIDER FOR TRANSPORTATION?



PUBLIC COMMENT #4 - WHAT COMMUNITY PARTNERS ARE IMPORTANT TO ACCOMPLISHING THIS GOAL?



Photo: Sunset Village Ice Cream Social

IMPORTANT NEXT STEPS TO STAY INVOLVED



- **Tell your friends, family and people you know.**
- **Engage your policy makers.**
- **Stay tuned for project updates and the next public meeting!**



SPECIAL GUEST



NAVIGANT

THANK YOU FOR ATTENDING!

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