

Tax Credits & Rebates for Clean Energy Opportunities

UWRA

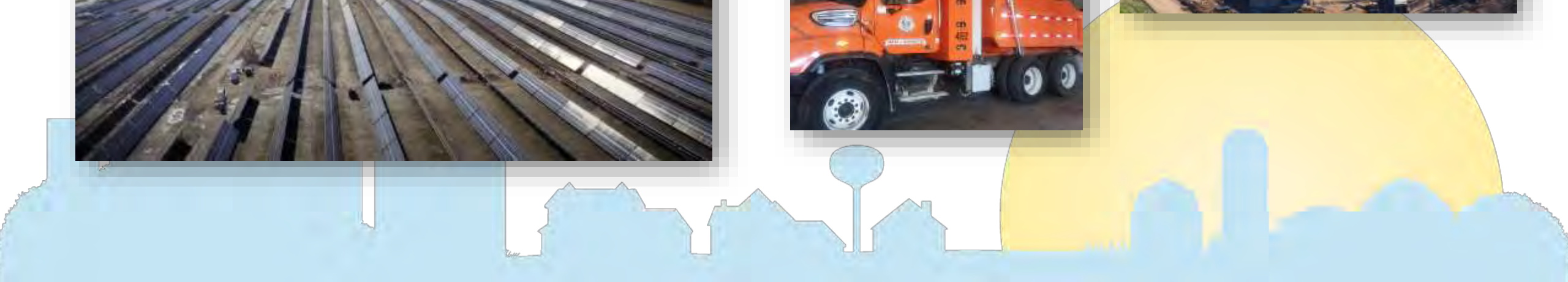
May 10, 2023



Dane County Office of
Energy & Climate Change

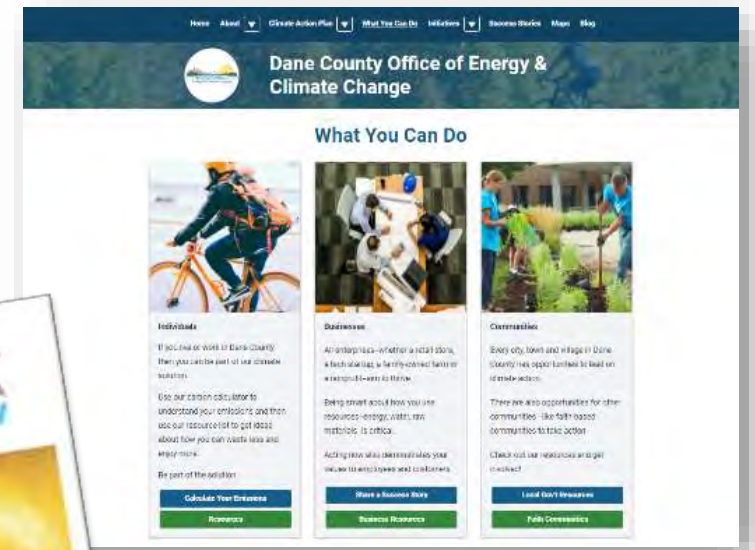
Kathy Kuntz, Director

Dane County's Long History of Leadership



Office of Energy & Climate Change

- Inside County Exec Parisi's Office
- Reduce emissions in county operations
- Reduce countywide emissions
 - 2020 Climate Action Plan
 - Sustainable Leaders Collaborative
 - Climate Champions Program
 - Partnerships!
- Find us at DaneClimateAction.org
 - DaneOECC on social media



Recent Federal Support for Climate Action

- Bipartisan Infrastructure Law (BIL)
 - Increased funding for fundamentals – state energy offices, low-income Weatherization Assistance Program, electric vehicle charging on highways
 - Mostly formula and competitive grants
- Inflation Reduction Act (IRA)
 - Financial incentives that make clean energy cheaper than fossil alternatives
 - Mostly (2/3) tax credits

Mostly we'll focus today on the IRA



New Dane County Resources

- Clear explanations
- Up-to-date information
- Links to forms
- Email alerts

[https://daneclimateaction.org/
what-you-can-do/federal-funding](https://daneclimateaction.org/what-you-can-do/federal-funding)

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Dane County Office of Energy & Climate Change

The Inflation Reduction Act

With an estimated \$369 billion in tax credits and financing for clean energy strategies, the Inflation Reduction Act (IRA) is the single largest U.S. investment in climate action. This funding makes pursuing clean energy solutions easier and more affordable than ever, putting our country on a path to reduce its emissions 40% by 2030.


The Dane County Office of Energy & Climate Change is sharing resources about the IRA to encourage everyone in Dane County to take advantage of these unprecedented opportunities to go green.

How You Can Take Advantage of the IRA



Learn more about how individuals can take advantage of the tax credits and grants available through the IRA.

Individuals



Learn more about how businesses, non-profits, local government, and schools can utilize tax credits, rebates, and grants available through the IRA.

Businesses/Other Entities

Projected Impact From IRA

The IRA's impact is projected to be substantial:

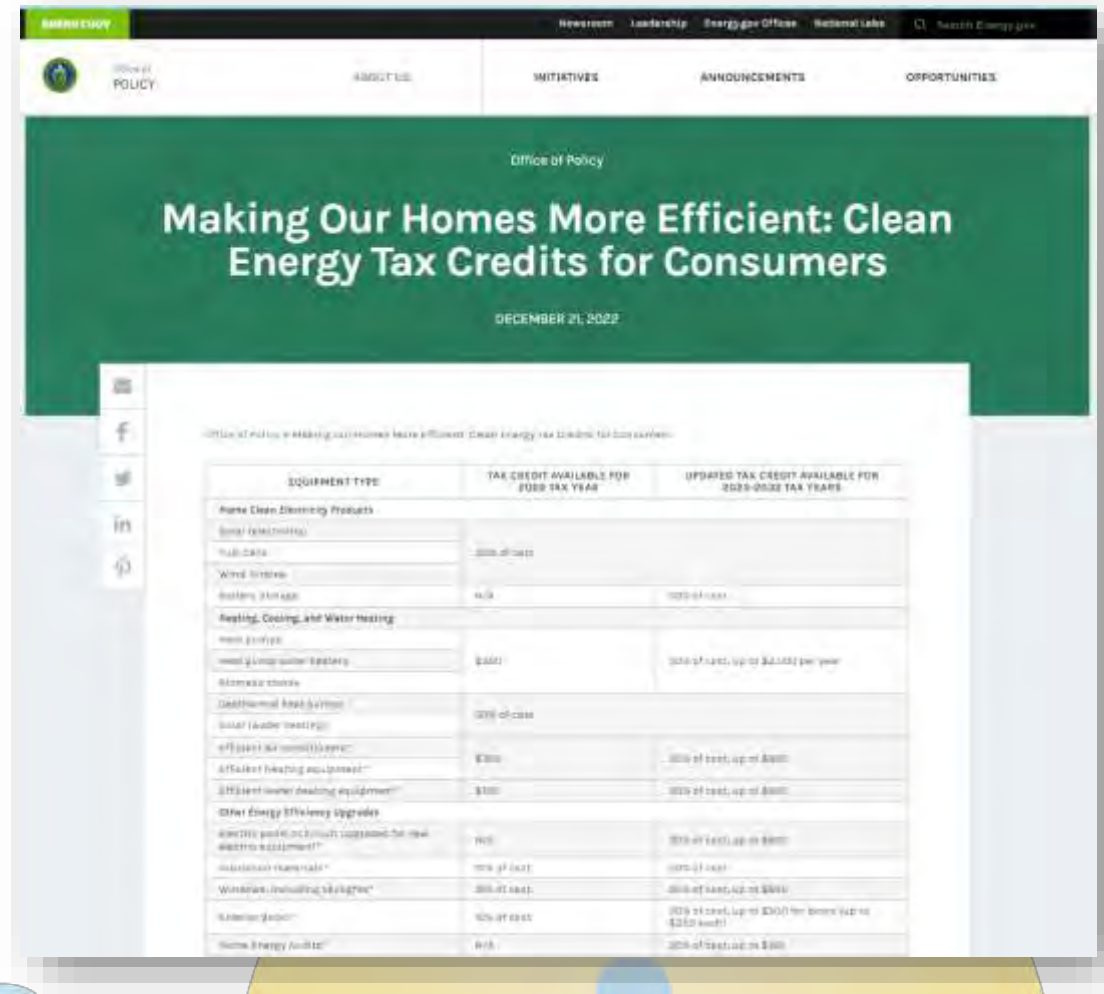
- **Clean Energy Jobs:** Bring an estimated \$4 billion of investment in large-scale clean power and storage to Wisconsin between now and 2030
- **Boost domestic manufacturing of clean energy and**

US federal government's average annual climate spending (\$ billions)

Year	Spending (\$ billions)
2021	1.0
2022	1.5
2023	2.0
2024	2.5
2025	3.0
2026	3.5
2027	4.0
2028	4.5
2029	5.0
2030	5.5

Tax Credits for Homeowners

- 30% for solar, battery storage, geothermal
 - Credits will carryover to next year's taxes
- Up to 30% of cost of eligible energy efficiency measures
 - Annual maximum of \$1,200 plus \$2,000 maximum for heat pumps
 - Do not carryover to next year
- Encourages a multi-year plan
 - Can claim this tax credit annually for different efforts...do an audit this year then do insulation next year, a new heating system the year after that...
- Claim on taxes the year after you do the work
- Layer with Focus on Energy incentives



The screenshot shows the EPA Office of Policy website with a green header and a table of tax credits. The table is titled "Making Our Homes More Efficient: Clean Energy Tax Credits for Consumers" and is dated December 21, 2023. The table has three columns: "EQUIPMENT TYPE", "TAX CREDIT AVAILABLE FOR 2023 TAX YEAR", and "UPDATED TAX CREDIT AVAILABLE FOR 2023-2032 TAX YEARS".

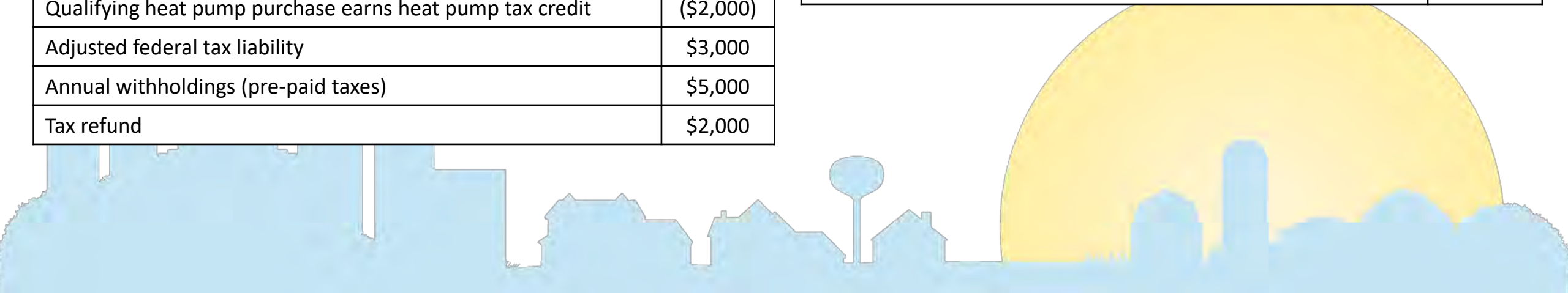
EQUIPMENT TYPE	TAX CREDIT AVAILABLE FOR 2023 TAX YEAR	UPDATED TAX CREDIT AVAILABLE FOR 2023-2032 TAX YEARS
Home Clean Electricity Products		
Solar (electricity)	30% of cost	30% of cost
Wind turbines	30%	30% of cost
Battery storage	30%	30% of cost
Heating, Cooling, and Water Heating		
Heat pumps	30%	30% of cost, up to \$2,000 per year
Geothermal heat pumps	30%	30% of cost
Energy-efficient air conditioning	\$200	30% of cost, up to \$200
Air-seal heating equipment	\$200	30% of cost, up to \$200
Other energy efficiency upgrades	N/A	30% of cost, up to \$200
Weatherstripping doors and windows	30% of cost	30% of cost
Weatherstripping windows	30% of cost	30% of cost, up to \$200
Energy audits	30% of cost	30% of cost, up to \$200
Home energy audits	N/A	30% of cost, up to \$200

Energy Efficiency Tax Credit Scenarios

Example 1: Reduced Tax Liability	
Customer's annual federal tax liability	\$5,000
Qualifying heat pump purchase earns heat pump tax credit	(\$2,000)
Adjusted federal tax liability	\$3,000
Annual withholdings (pre-paid taxes)	\$3,000
Customer owes	\$0

Example 2: Increased Refund	
Annual federal tax liability	\$5,000
Qualifying heat pump purchase earns heat pump tax credit	(\$2,000)
Adjusted federal tax liability	\$3,000
Annual withholdings (pre-paid taxes)	\$5,000
Tax refund	\$2,000

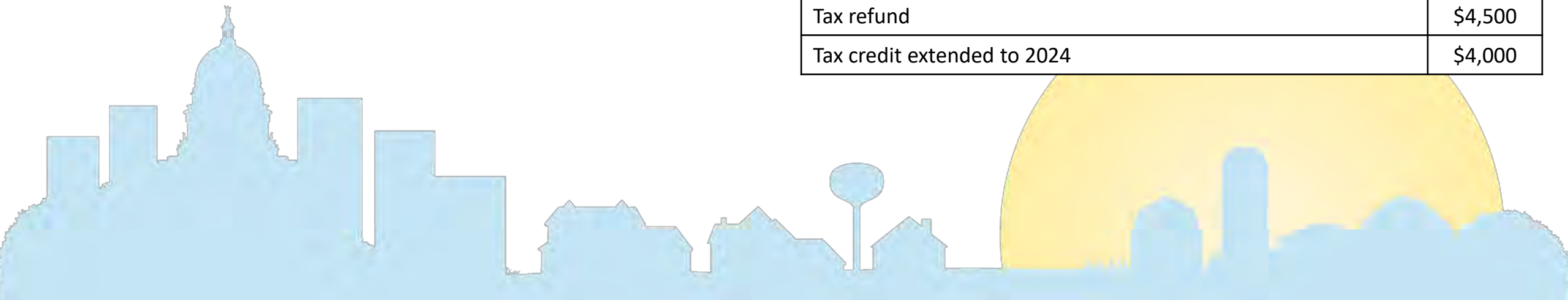
Example 3: Partial Benefit	
Annual federal tax liability	\$1,500
Qualifying heat pump purchase earns heat pump tax credit	(\$2,000)
Adjusted federal tax liability	\$0
Annual withholdings (pre-paid taxes)	\$1,500
Tax refund	\$1,500



Solar/Geothermal/Battery Storage Tax Credit Scenarios

Example 1: Reduced Tax Liability	
Customer's annual federal tax liability	\$15,000
Qualifying solar purchase earns solar tax credit	(\$9,000)
Adjusted federal tax liability	\$6,000
Annual withholdings (pre-paid taxes)	\$10,000
Tax Refund	\$4,000

Example 2: Reduced Tax Liability – Extended to 2024	
Annual federal tax liability	\$5,000
Qualifying solar purchase earns solar tax credit	(\$9,000)
Adjusted federal tax liability	\$0
Annual withholdings (pre-paid taxes)	\$4,500
Tax refund	\$4,500
Tax credit extended to 2024	\$4,000

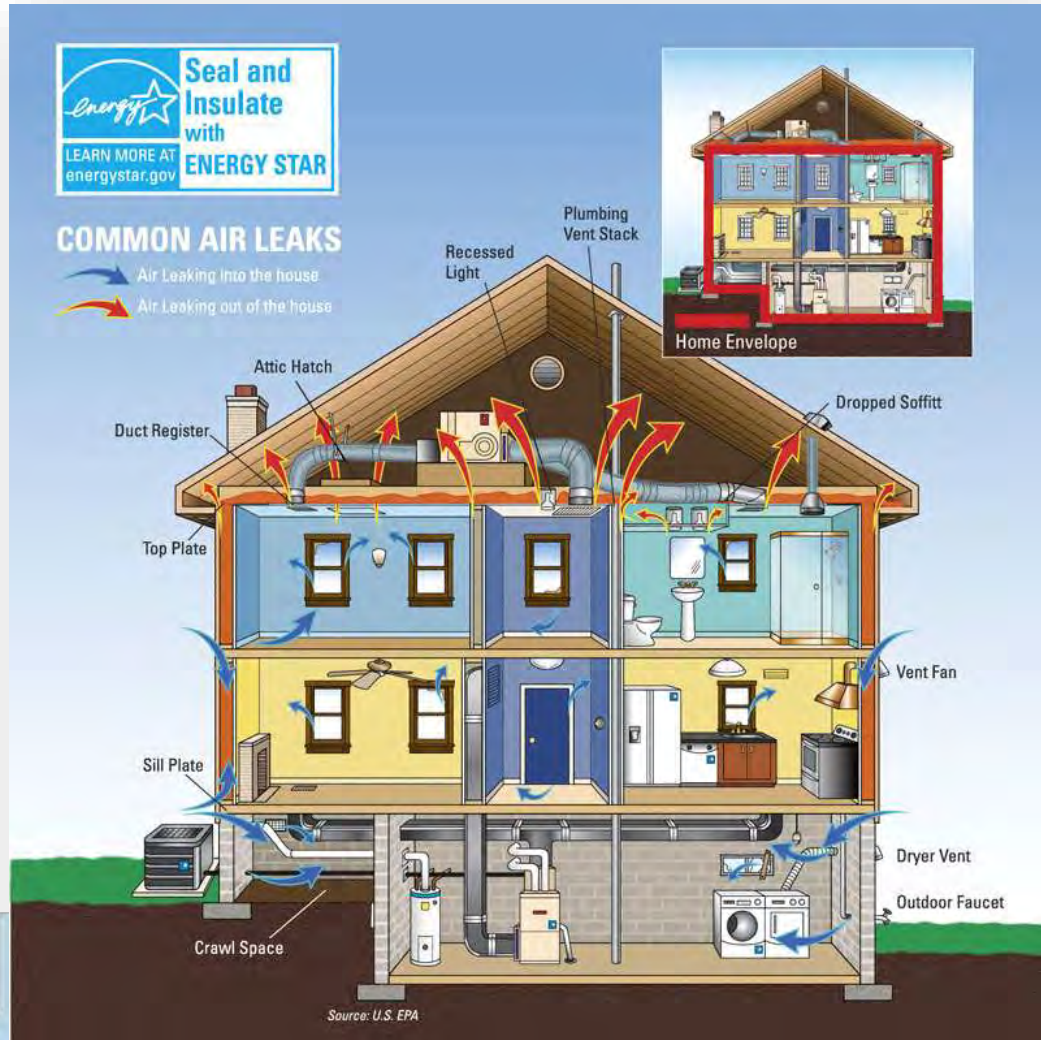


New Energy Efficiency & Electrification Programs

- Administered by states
 - \$149M for Wisconsin via Focus on Energy
- Energy efficiency incentives
 - Incentive level based on energy savings achieved
 - Single family and multi-family (landlords) are eligible
 - Higher incentives for low-moderate income folks
- Electrification incentives
 - Heat Pumps, Electrical Panel Upgrades, Induction Stoves
 - Up to 100% of cost for households < 80% of area median income
 - 50% for households 80% - 150% of area median income
 - Households > 150% of area median income are not eligible
- **Both programs likely to launch in 2024**
 - Federal guidance by summer 2023, then states have to create a plan...
 - If you install now you won't be eligible for these programs



The Big Efficiency Opportunity



ENERGY NEWS NETWORK

MIDWEST SOUTHEAST NORTHEAST WEST OPINION SPECIAL REPORTS NEWSLETTERS ABOUT JOB BOARD

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MIDWEST

A hidden challenge for Minneapolis climate goals: shoddy insulation

In the country's coldest large city, an analysis reveals that about two-thirds of homes listed for sale since 2020 had inadequate insulation. Addressing the problem is key to reducing emissions and preparing for heat pumps.

by Frank Jossi
February 3, 2023



Credit: Tim Walters / Creative Commons

About two-thirds of homes being listed for sale in Minneapolis have inadequate insulation, according to a review of energy disclosure reports.

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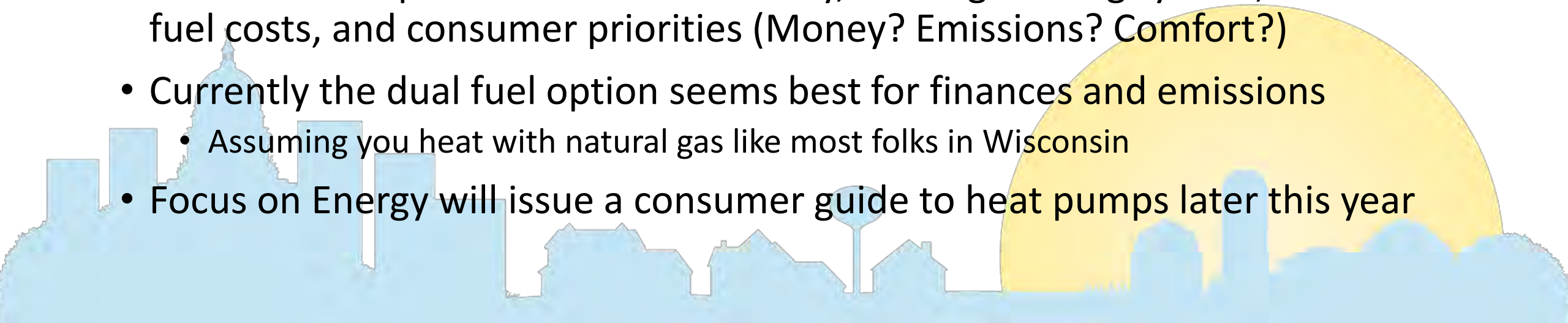
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TRENDING

- Across the country, a big backlash to new renewables is mounting
- Complex energy legislation puts burden on Virginia's part-time lawmakers
- What we know about Alice Parker, a

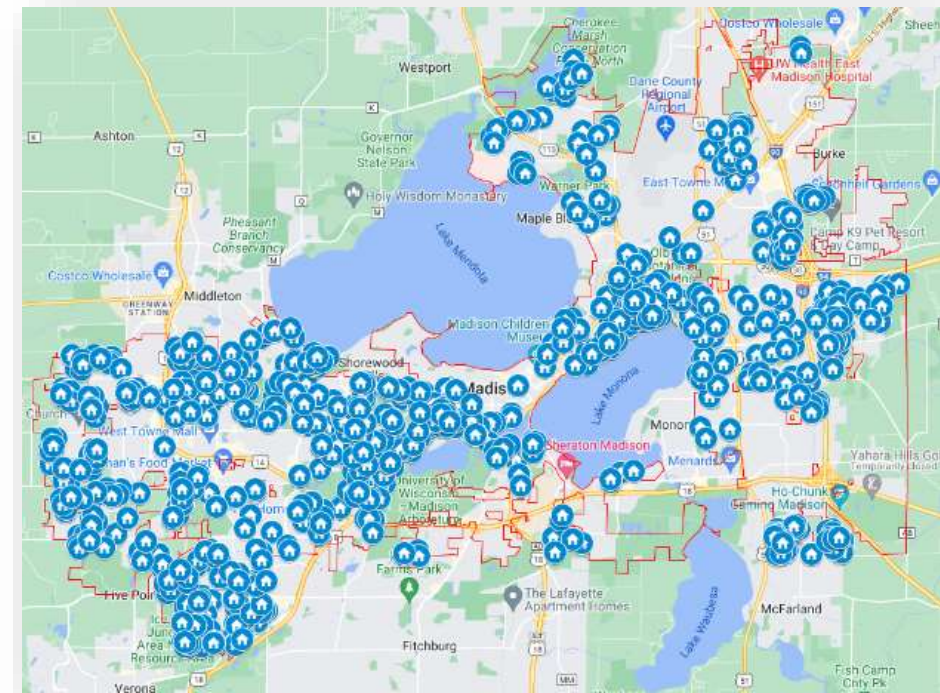
Heat Pumps in Wisconsin

- Your air conditioner is a heat pump with half the features
- Common heat pump options:
 - Ground source (geothermal)
 - Cold climate air source (often includes some back up electric heat)
 - Dual fuel (leveraging air source heat pump and gas/propane system for coldest days)
 - Ductless “zone” units
- Best choice depends on home efficiency, existing heating system, current fuel costs, and consumer priorities (Money? Emissions? Comfort?)
- Currently the dual fuel option seems best for finances and emissions
 - Assuming you heat with natural gas like most folks in Wisconsin
- Focus on Energy will issue a consumer guide to heat pumps later this year

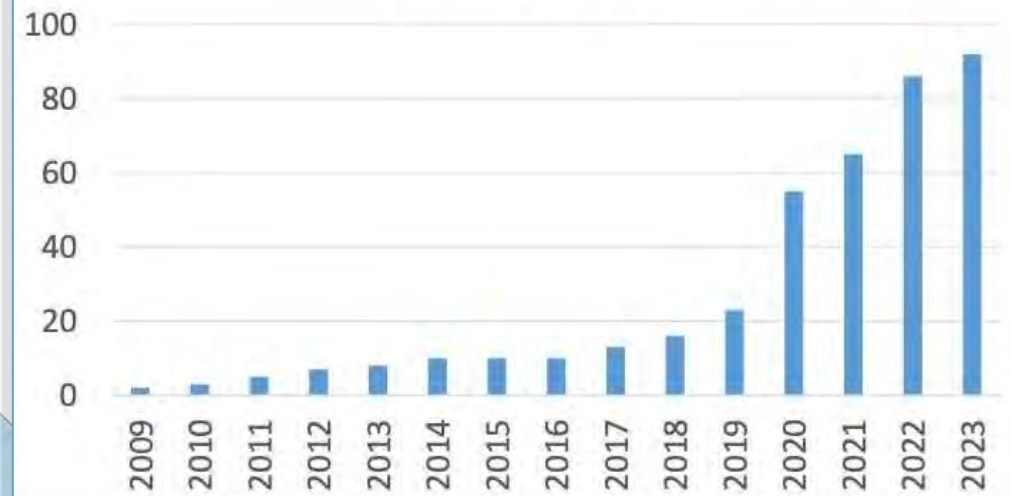


Solar in Dane County

- More customer solar than anywhere else in Wisconsin
 - 100s of local installations
- Vibrant installer network
- MadiSUN group buy
 - Focus on Energy rebates
 - IRA tax credits
 - 30% of system cost



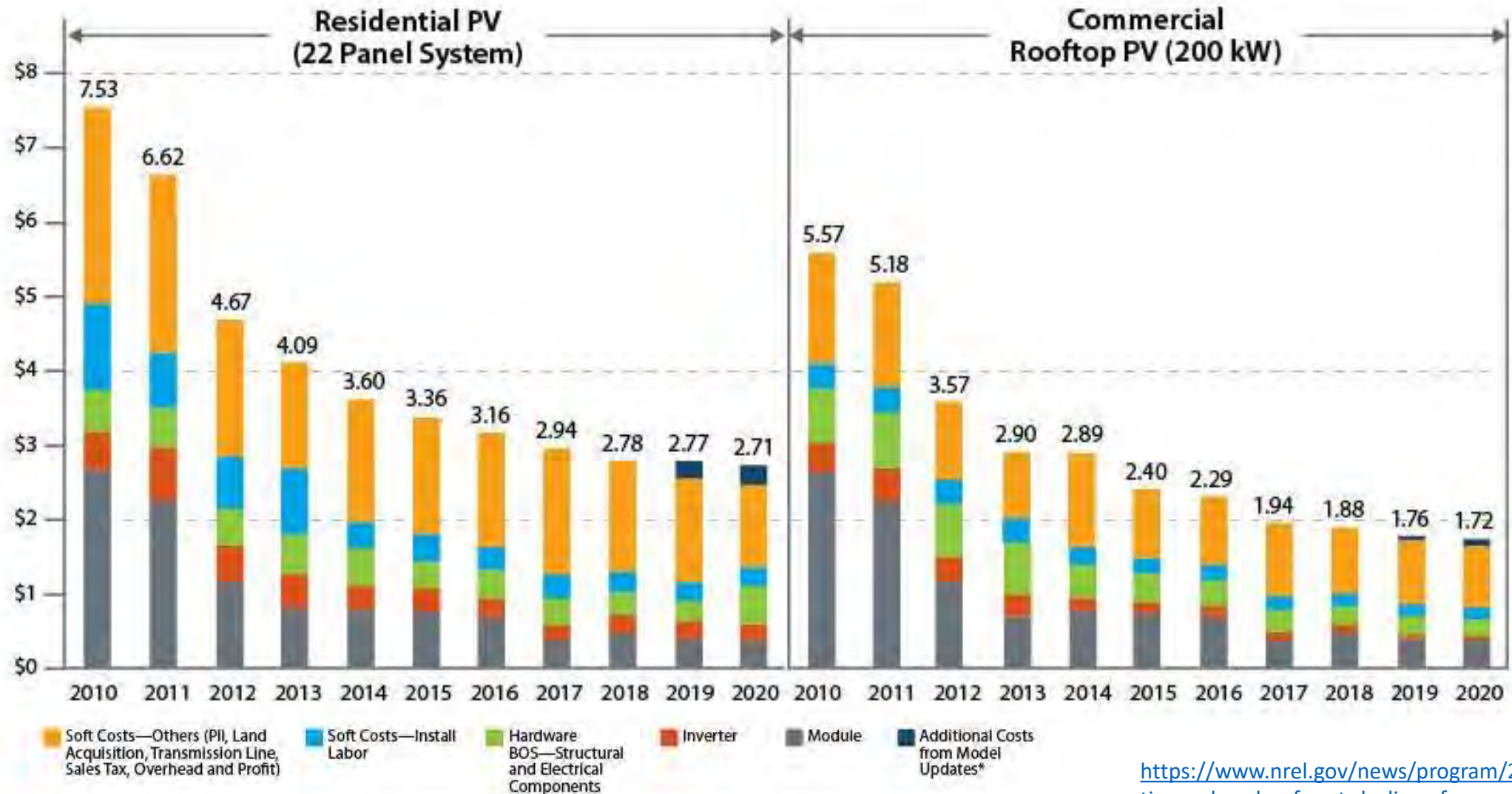
Cumulative Customer Solar Projects in Mount Horeb



Solar Typically Tied to Electric Grid



Solar Electric Systems Are Increasingly Affordable



<https://www.nrel.gov/news/program/2021/documenting-a-decade-of-cost-declines-for-pv-systems.html>

The cost of solar continues to decline across residential, commercial, and utility-scale PV systems, driven largely by increased module efficiency as well as lowered hardware and inverter costs.

2023 Residential Example

- 7 kW array
 - About 9,500 kwh of electricity
 - Estimated cost \$24,000
- \$16,300 final cost
 - \$7,200 tax credit
 - \$500 Focus on Energy rebate
- Electric savings \$1,580/year



Some efficiency measures will have faster payback

Electric Vehicle Incentives: 2023 - 2032

- Up to \$7,500 for qualifying new vehicles
 - Increasingly rigorous requirements for battery components and assembly
 - Requirements do not apply to leased vehicles
 - Eliminates the manufacturer quotas
 - Not available for premium vehicles or high income folks
 - In 2024 can be instant rebate off purchase price
- Up to \$4,000 for a used EV
 - Sale price cannot exceed \$25,000
 - Individual income of \$150,000 or less to qualify



Tax Credits (And Direct Pay) for Businesses, Nonprofits Too

30% credit for solar,
battery storage and
geothermal
-Direct Pay available

Deductions for energy
efficiency upgrades
(new construction
and retrofits)

\$7,500 - \$40,000
credits for electric
vehicle purchases
-Direct Pay available

Can layer with Focus
on Energy and
PACE financing





Dane County Office of
Energy & Climate Change



Direct Pay for Nonprofits

Tax exempt entities such as schools, local governments, and nonprofits can now receive up to 30% reimbursements from the federal government via the Inflation Reduction Act for eligible solar, geothermal, battery storage and electric fleet projects.



LEARN MORE ABOUT ELIGIBLE PROJECTS AND DIRECT PAY AT
[DANECLIMATEACTION.ORG/WHAT-YOU-CAN-DO/FEDERAL-FUNDING](https://daneclimateaction.org/what-you-can-do/federal-funding)

*PROJECTS CAN BEGIN NOW WHILE APPLICATION FORMS ARE BEING FINALIZED

Renewable (ITC) Tax Credit 2023-2032

	Less than 1 MW	Over 1 MW	
Base Credit	30%		
Meets Prevailing Wage/Apprenticeship	N/A	No: 6%	Yes: 30%
Domestic Content	+10%	+2%	+10%
Energy Community	+10%	+2%	+10%
<i>Bonus Credits (competitive with annual limits)</i>			
LMI Communities or Tribal Land	+10%	+10%	+10%
Qualified Low Income Building or Impact	+20%	+20%	+20%
Subtotal of Credits			
Tax-Exempt Financing	Subtract 15% of subtotal		
Total Tax Credit or Direct Pay			

Case Study: McFarland Public Safety Building



- Will house Fire & Rescue, Municipal Court, and Police Departments
- 58,000 sq ft
- Will be a net-zero building
 - Geothermal
 - Solar arrays
- Actual Costs
 - \$850,000 Solar PV
 - \$2.5M geothermal & HVAC system
 - Total -\$3,350,000



McFarland Public Safety Building

Total solar and geothermal costs: \$3,350,000

Project is under 1MW

Base Credit	30%	
Domestic Content	Yes +10%	No
Subtotal of Credits	40%	30%
Tax-Exempt Financing Adjustment	15% of 40% = 6%	15% of 30% = 4.5%
Subtotal – Tax Exempt Financing Adj	40% - 6% = 34%	30% - 4.5% = 25.5%
Total Direct Pay	\$1,139,750	\$854,250
Final Project Cost	<i>\$2,210,250</i>	<i>\$2,495,750</i>

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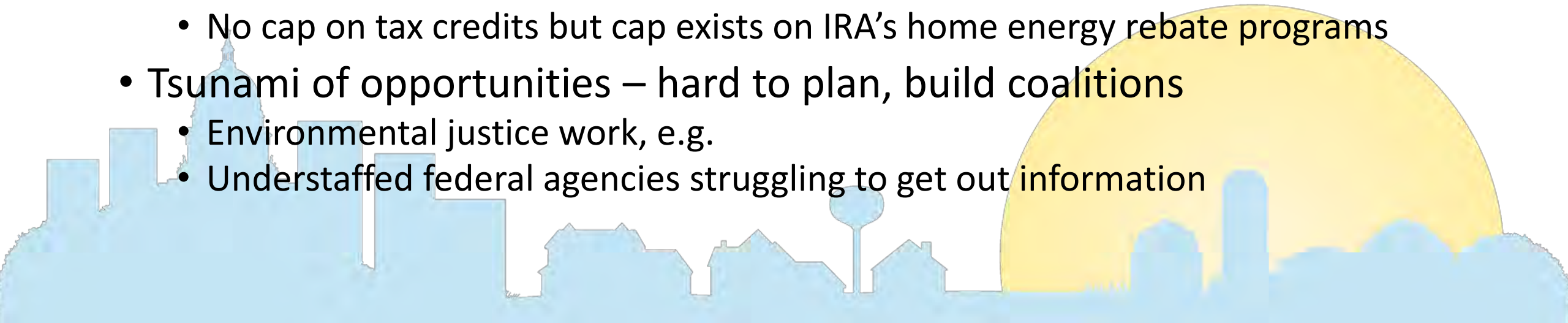
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The IRA Is Not Perfect



Feedback

- IRA stronger on renewables than energy efficiency
 - Installing solar might well inspire more efficiency afterwards
- Electric vehicle funding for individuals is complicated
 - Changing list of qualified vehicles
 - No incentives for e-bikes
- Tax credits less useful to low- and moderate-income households
 - IRA rebate programs aimed at filling this gap
 - No cap on tax credits but cap exists on IRA's home energy rebate programs
- Tsunami of opportunities – hard to plan, build coalitions
 - Environmental justice work, e.g.
 - Understaffed federal agencies struggling to get out information

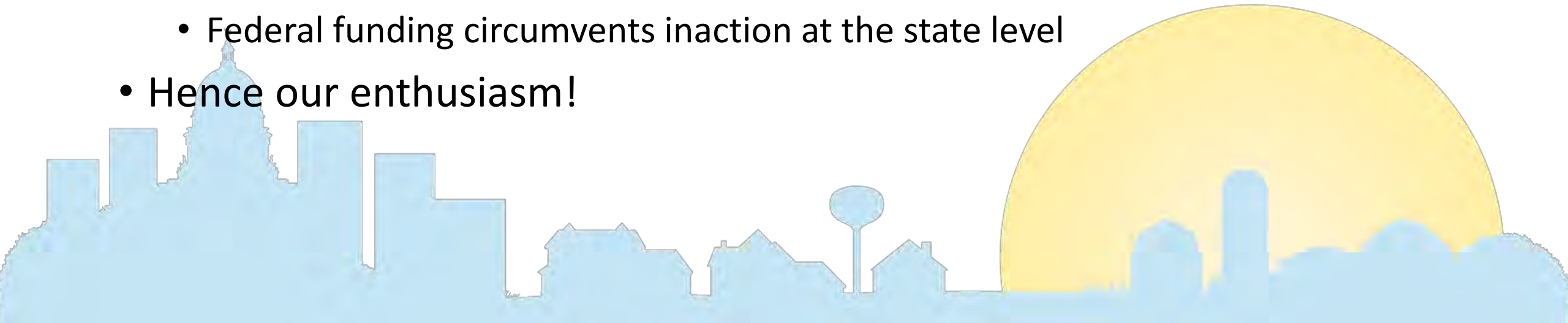


Nevertheless...

- Biggest climate investment in history
 - Clever emphasis on carrots for everyone
- Already signs that clean energy projects can cost less
 - Solar and geothermal on new construction, e.g.
- Direct pay for nonprofits and local governments can be huge
- \$149M for new rebate programs in WI plus unlimited tax credits...
 - Federal funding circumvents inaction at the state level
- Hence our enthusiasm!



Feedback



Resources Make It Easy to Go Green

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YOUR SAVINGS CALCULATOR

How much money will you get with the Inflation Reduction Act?

Enter your household information to find out.

Zip Code: 53711 Homeowner Status: Homeowner Household Income: \$95,000

Tax Filing: Head of Household Household Size: 4 people

Calculate!

Your Personalized Incentives

These are available to American homeowners and renters over the past 10 years.

UPFRONT DISCOUNTS \$14,000 <small>Covers up to 100% of costs</small>	AVAILABLE TAX CREDITS \$4,150	ESTIMATED BILL SAVINGS PER YEAR \$1,100
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Total Incentives: \$18,150

Disclaimer: This is an estimate. We do not yet know how or when upfront discounts will be implemented in each state, so we cannot guarantee final amounts or timing.

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FOCUS ON YOUR HOME

Focus on Energy empowers the people and businesses of Wisconsin to make smart energy decisions with enduring economic benefits.

Learn More

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About Programs Solar Financing Events FAQ

Go Solar with MadiSun!

<https://daneclimateaction.org/what-you-can-do/federal-funding>

Questions? Comments?

Kathy Kuntz

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DaneClimateAction.org

