

111 Liberty St., Suite 100 Columbus, Ohio 43215 www.morpc.org

#### NOTICE OF A MEETING ENERGY & AIR QUALITY WORKING GROUP MID-OHIO REGIONAL PLANNING COMMISSION

**HYBRID MEETING**May 22, 2025, 1:00 pm

#### **AGENDA**

#### **Welcome & Introductions**

Chair Stephens-Rich opened the meeting by welcoming attendees and inviting them to introduce themselves via the chat. Matt shared updates about upcoming travel and acknowledged Vice-Chair Arnold. The meeting was called to order shortly after 1:00 pm. Matt encouraged participation and set the tone for a collaborative session.

#### **MORPC Updates, MORPC staff**

#### Legislative Update

Kyle Probert discussed the status of the Strategic Community Investment Fund, capital budget, and several bills including HB 79 (energy efficiency), HB 197 (community solar), and HB 340 (employee mobility grants). He also flagged SB 266, which would restrict utility-owned EV charging infrastructure, noting its uncertain future.

#### **Energy Programs**

Brian Filiatraut provided a comprehensive update on the Climate Pollution Reduction Grant (CPRG) program. He outlined the planning and implementation phases, highlighting the submission of the Phase 2 application titled "Growing Green," which requested \$73.5 million in federal funding. Key initiatives included solar deployment for public and low-income buildings, electric buses, LED smart streetlighting, and workforce development.

Brian also discussed the SolSmart designation program and the 2024 Solar Co-op, encouraging local governments to support outreach. He shared updates on EV charging infrastructure, including a \$2 million grant for repairing broken chargers and plans to apply for \$15 million in the next CFI grant round. He noted the importance of community engagement and upcoming events.

#### Air Quality Programs

JR Diaz-Hernandez shared air quality updates, including the CLEAN project's expansion through a partnership with OSU and the release of an RFP for an air quality consultant. JR emphasized the importance of signing up for air quality alerts and using sustainable transportation options.

#### Fifth National Climate Assessment (NCA5) Presentation & Discussion

Karina Peggau presented highlights from the Fifth National Climate Assessment (NCA5), emphasizing its value as a planning tool. She explained climate trends such as increased temperatures, precipitation variability, and extreme weather events. Karina discussed economic impacts, energy demand projections, and vulnerabilities in infrastructure and public health. She highlighted the role of green infrastructure, especially urban trees, in mitigating climate impacts. The presentation included a discussion on the complexity of climate systems and the importance of cross-sector collaboration. Staff and attendees discussed opportunities for resilience, the role of emergency managers, public health, and private sector engagement, including data centers and insurance companies.

#### **Other Business & Announcements**

Chair Stephens-Rich shared updates on recent grant applications submitted under the Communities Taking Charge FOA, including projects focused on EV readiness ordinances and fleet charging access. He encouraged attendees to stay informed about summer events and federal funding opportunities, including elective pay programs for public and nonprofit entities.

Other attendees shared details about the Olentangy River Festival, and upcoming webinars and peer learning cohorts. The group discussed the importance of continued collaboration and outreach.

Adjourn, Matt Stephens-Rich, Chair

Please notify Brian Filiatraut at (614) 233-4137 or BFiliatraut@morpc.org to confirm your attendance for this meeting or if you require special assistance.

The next Energy and Air Quality Working Group meeting is: Wednesday, August 28, 2024 from 1:00 – 2:30 PM

#### Mid-Ohio Regional Planning Commission

#### Energy & Air Quality Working Group Attendance

May 22, 2024, 1:00 pm

#### **Members Present**

Layla Abraham, Franklin County Public Health
Dale Arnold, Ohio Farm Bureau Federation
Erin Beck, City of Columbus
Marcus Carano, SmartColumbus
Andy Cocina, Wendel Energy
Geddy Davis, OSU Byrd Polar & Climate
Research Center
Justin Feasel, Village of Somerset
Doug Herling, Open Road Renewables
Randall Hunt, Lancaster-Fairfield Community
Action Agency

Matt Lima, Columbus-Franklin County Finance Authority
Dave Medley, Clinton Township
Emiliana Morales, Columbus City Council
Liza Paul, OSU Wexmer Medical Center
Dennis Payne, Madison County.
Randall Reames, X-Energy
Sam Richey, City of Columbus Division
Courtney Ruppert, Village of Granville
Ira Weiss

#### MORPC Staff Present

Mauro Diaz-Hernandez Lynn Kaufman Brian Filiatraut Karina Peggau **Kyle Probert** 

ENERGY &
AIR QUALITY
WORKING GROUP
(EAQWG) MEETING

**Q2 Meeting May 22, 2024** 





# **AGENDA**



- 1. Welcome & Introductions, Matt Stephens-Rich, Chair 1:00 PM
- 2. MORPC Updates, MORPC Staff | 1:10 PM
  - a. Legislative Update, Kyle Probert
  - **b.** Energy Programs, Brian Filiatraut
  - c. Air Quality Programs, Mauro Diaz-Hernandez
- 3. Fifth National Climate Assessment Presentation & Discussion, Karina Peggau, MORPC | 1:30 PM
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# MORPC STAFF UPDATES



**Energy Program**Brian Filiatraut

Air Quality Program

Mauro "JR" Diaz-Hernandez

**Legislation & Policy** 

Kyle Probert

# ENERGY PROGRAM UPDATE



Brian Filiatraut
Energy and Sustainability Program Manager



#### **CPRG PROGRAM OVERVIEW**



Climate Pollution Reduction Grant (CPRG) Program | US EPA

## **CPRG Program Goal:**

To assist in the development and implementation of strong pollution reduction strategies

#### Phase 1: Planning Grants

\$250 million to states and metropolitan statistical areas (MSAs)

#### Phase 2: Implementation Grants

\$4.6 billion to put plans into action

# **CPRG PHASE 1 PLANNING**

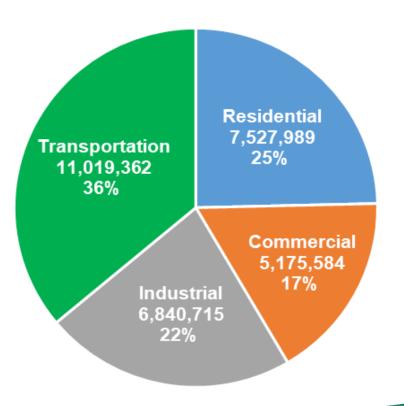
Climate Pollution Reduction Grant (CPRG) Program | US EPA

- Core Project Team:
  - o Sustainable Columbus, MORPC, OSU, PCFO, & IMPACT CA
- Submitted Priority Climate Action Plan (PCAP)
  - → March 1, 2024
- Currently working on the Comprehensive Climate Action Plan (CCAP)
  - → July 2025 deadline
- PCAP, CCAP, and other deliverables are important for:
  - Developing metrics, mitigation & resiliency actions
  - Plans for federal funding opportunities



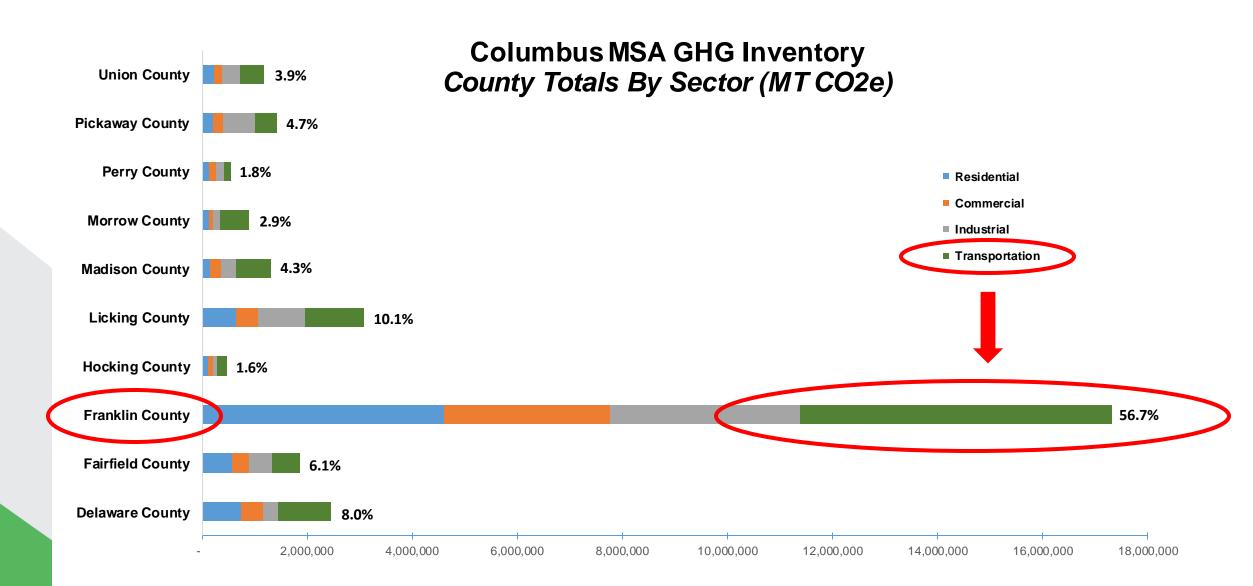
# 10-County MSA Sector Totals

10-County MSA Sector Totals
(MT CO2e)



## REGIONAL GHG INVENTORY

By County by Sector



## **CLIMATE POLLUTION REDUCTION GRANT (CPRG)**

**CPRG Phase 2 Implementation Grant Application | US EPA** 



# Growing Green: A Community-Focused Energy Strategy for a Growing Columbus Region

CPRG Federal Request: \$73.5mm across 10-county Columbus MSA

**Lead Organizations**: MORPC, City of Columbus, Columbus Region Green Fund, Clean Energy Ventures, COTA, IMPACT Community Action

#### **Project Highlights:**

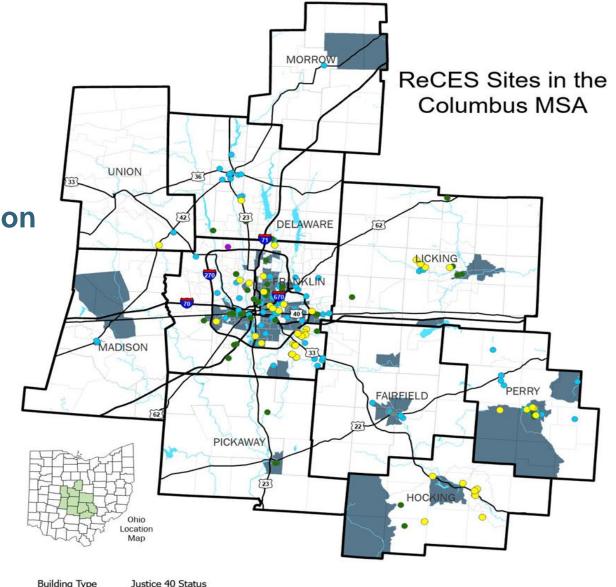
- 27.5 MW of solar → local government, school, and nonprofit buildings and spaces (ReCES)
- 2.5 MW of solar → low-income residents (ReCES)
- Battery electric buses for bus rapid transit system (LinkUS)
- LED smart streetlighting (LinkUS)
- Workforce development support

#### **CPRG PHASE 2: APPLICATION**

**CPRG Program | US EPA** 

**Growing Green: A Community-Focused Energy Strategy for a Growing Columbus Region** 

- \$73.5mm federal funding request
- Reducing 94,947 MT CO2e by 2030
- o Reducing 462,165 MT CO2e by 2050
- ReCES Commercial Solar | 27.5 MW
- ReCES Residential Solar for LIDACs | 2.5 MW
- LinkUS Battery Electric Buses along W. Broad
- LinkUS Smart LED Streetlight Retrofit along W. Broad







The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

N:\ArcGIS\Planning\CPRG\CPRGrant.ppg\ArcBigger.

# **SOLSMART IN MORPC COMMUNITIES**



A national, no-cost technical assistance & designation program designed to recognize cities, counties, villages, & township governments for encouraging solar energy growth.



Community	Designation (Year)
City of Bexley	Gold (2023)
City of Columbus	Gold (2023)
City of Delaware	Bronze (2022)
City of Dublin	Bronze (2024)
City of Hilliard	Silver (2022)
City of Lancaster	Gold (2023)
Franklin County	Bronze (2017)
MORPC	Silver (2021)
Upper Arlington	Gold (2022)
Village of Somerset	Bronze (2017)

## **SOLAR CO-OP**

 a group of homeowners in a geographic area who use their combined purchasing power to ensure they receive the most competitive solar installation pricing

# **Columbus Area 2024 Solar, Storage, and EV Charger Co-op**

- Open to ALL homeowners within Franklin County and adjacent counties
- Runs from May 6 → August 26
- Local government requirements: In-kind marketing & outreach services → no cost!
- Upcoming events:
  - June 11 @ 6:30 PM Columbus CML Northern Lights Branch
  - July 9 @ 6:30 PM Groveport CML Southeast Branch











# **EV CHARGING**

## **EV Charger Reliability & Accessibility Accelerator**

- Won \$2mm via USDOT-FHWA to repair / replace broken EV charging ports to NEVI standard throughout MORPC region
- June 2025 deadline to complete ~175 ports
- RFP to be released in mid- to late June

# Charging & Fueling Infrastructure (CFI) Grant

- Applying for \$15mm for USDOT-FHWA's CFI community corridor track
- To building out EV charging network in urban and rural communities with a focus on LIDACs
  - → economic development tool
- Round 2, CFI NOFO expected to come out in June 2024





#### OTHER LEARNING OPPORTUNITIES







For more info reach out to Clean Fuels Ohio: <u>Jacob@cleanfuelsohio.org</u>

Join our upcoming workshop on AEP's Pilot Residential EV Charging Time-of-Use Pilot Program
3:00 - 4:00 p.m. ET.
Wednesday, May 29th

# Ohio's Electric Vehicle Infrastructure Public Meetings



# **CENTRAL OHIO**



In-person meeting Begins at 11:00am



Tuesday, June 18th



Ohio Department of Transportation (ODOT) 1980 West Broad Street, Columbus, Ohio 43223

Find more information at: drive.ohio.gov/about-driveohio/events

#### **BRIAN FILIATRAUT**

Energy and Sustainability Program Manager Mid-Ohio Regional Planning Commission

T: 614.233.4137
<a href="mailto:bfiliatraut@morpc.org">bfiliatraut@morpc.org</a>
111 Liberty Street, Suite 100
Columbus, OH 43215



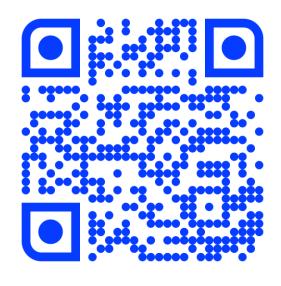
# AIR QUALITY PROGRAM UPDATE

Mauro "JR" Diaz-Hernandez Air Quality & Sustainability Program Coordinator



## **AIR QUALITY PROGRAM UPDATES**





**Sign up for Air Quality forecasts and Alerts** for ground level ozone and particle pollution or PM<sub>2.5</sub>

- Reminder: alerts cover Delaware, Fairfield, Franklin, and Licking counties
- As weather warms, explore sustainable transportation options: gohiocommute.com

#### **CLEAN Project Updates**

- Partnership with OSU
- Expanding community outreach
- RFP for consultant due June 3rd

Questions?
Mauro "JR" Diaz-Hernandez
Air Quality & Sustainability Program Coordinator
mdiazhernandez@morpc.org



#### **LEGISLATIVE UPDATE**

Kyle Probert – Public Policy Coordinator



- Statehouse Activity Back in Full Swing
- One-Time Strategic Community Investment Fund & Capital Budget
- Energy Efficiency (HB 79) and Community Solar (HB 197)
- Employee Mobility Grant Program (HB 340)
- Timing



#### **KYLE PROBERT**

Public Policy Coordinator

Mid-Ohio Regional Planning Commission

T: 614.233.4137 kprobert@morpc.org 111 Liberty Street, Suite 100 Columbus, OH 43215



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## How It Works



#### Confidence

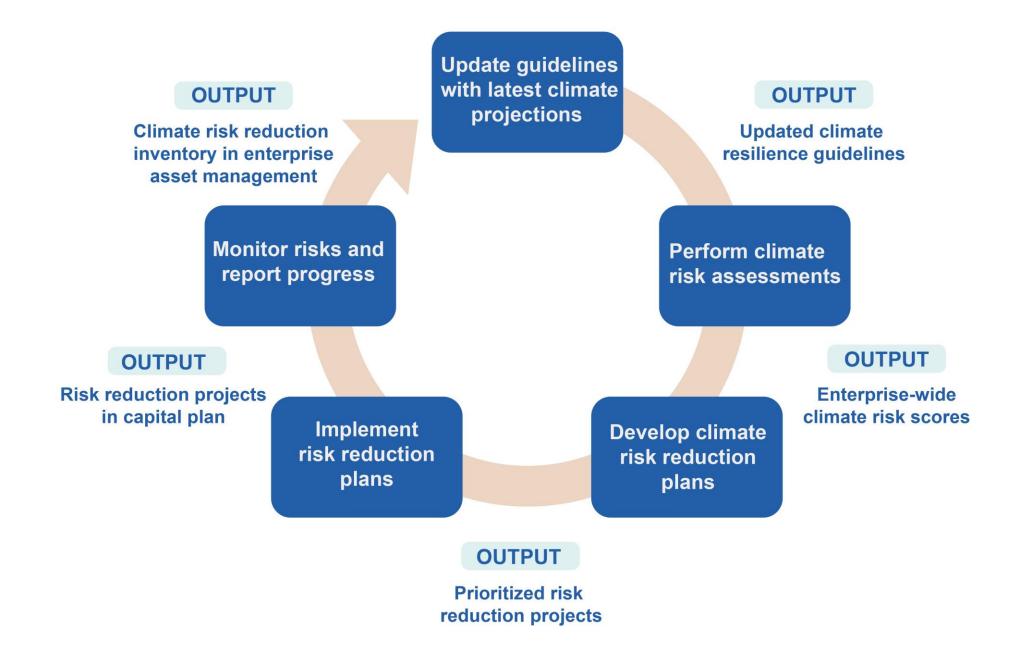
- Very High
  - Strong evidence
  - High consensus
- High
  - Moderate evidence
  - Medium consensus
- Medium
  - Suggestive evidence
  - Competing schools of thought
- Low
  - Inconclusive evidence
  - Disagreement among experts

#### Likelihood

- Virtually Certain (99% 100%)
- Very Likely (90% 100%)
- Likely (66% 100%)
- As Likely As Not (33% 66%)
- Unlikely (0% 33%)
- Very Unlikely (0% 10%)
- Exceptionally Unlikely (0% 1%)

"Cleveland, Ohio" by Maggie L. (2023, Grade 11, Acrylic Pain, Gel Pad Print)

#### Resilience Planning Cycle

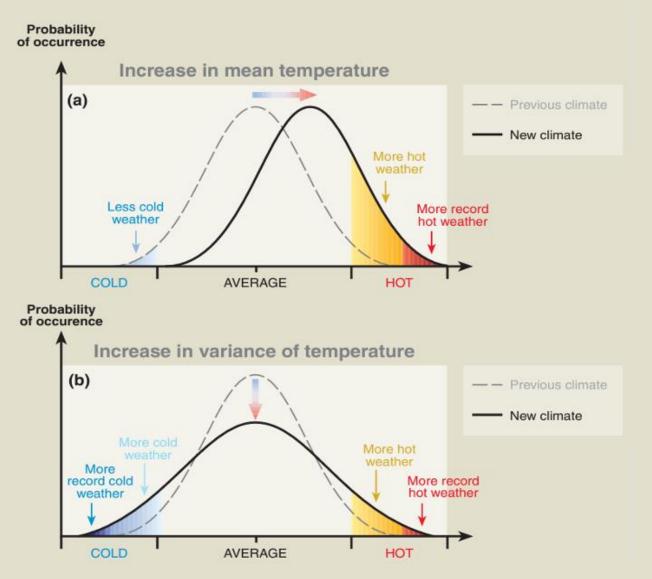


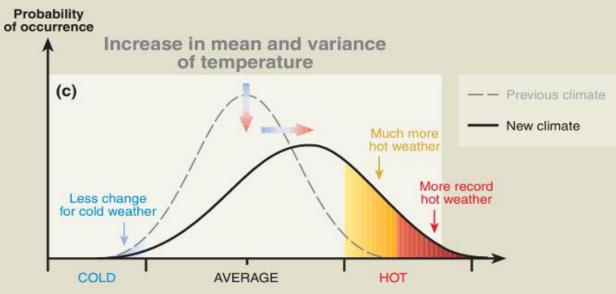


# Climate Trends

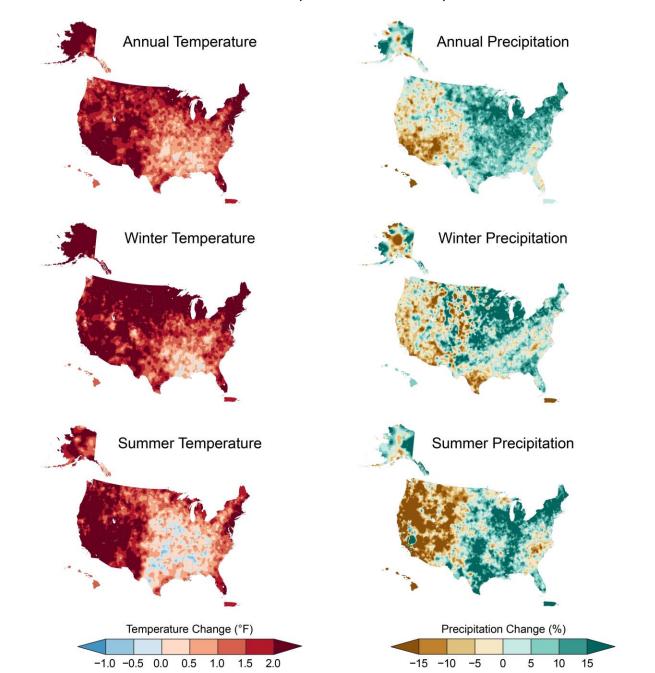
Dr. Avila Holding Cut Antarctic Ice Core" by Ivan Van Coller (2017, Pigment Print on Washi with Annotations)

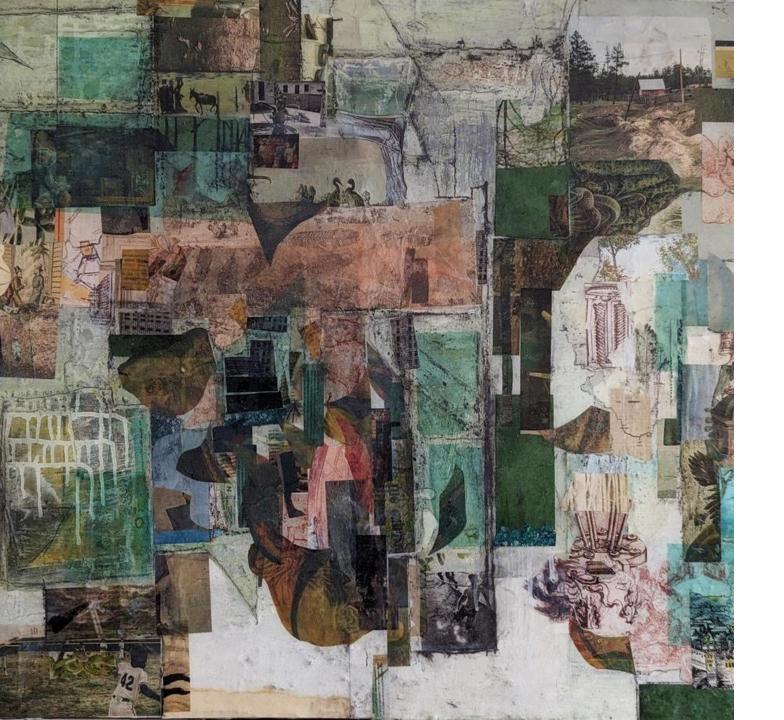
## Weather Probability and Variability in a Changing Climate





# Observed Changes in Annual, Winter, and Summer Temperature and Precipitation



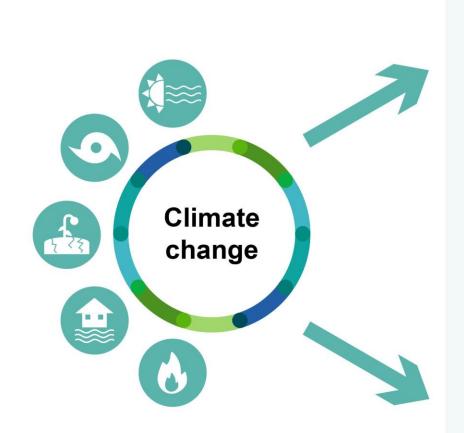


# **Economics**

"The Way We Were" by Audrey Martin

(2022, Paper Scraps, Acrylic, Charcoal, Gouache)

#### Fiscal Risks of Climate Change



#### Tax base impacts



Real estate values Household income Business revenues

#### **Expenditure impacts**



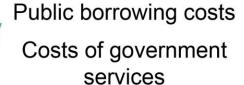
Infrastructure costs
Disaster relief
Healthcare utilization
Public insurance costs

# Net negative impact on public budgets

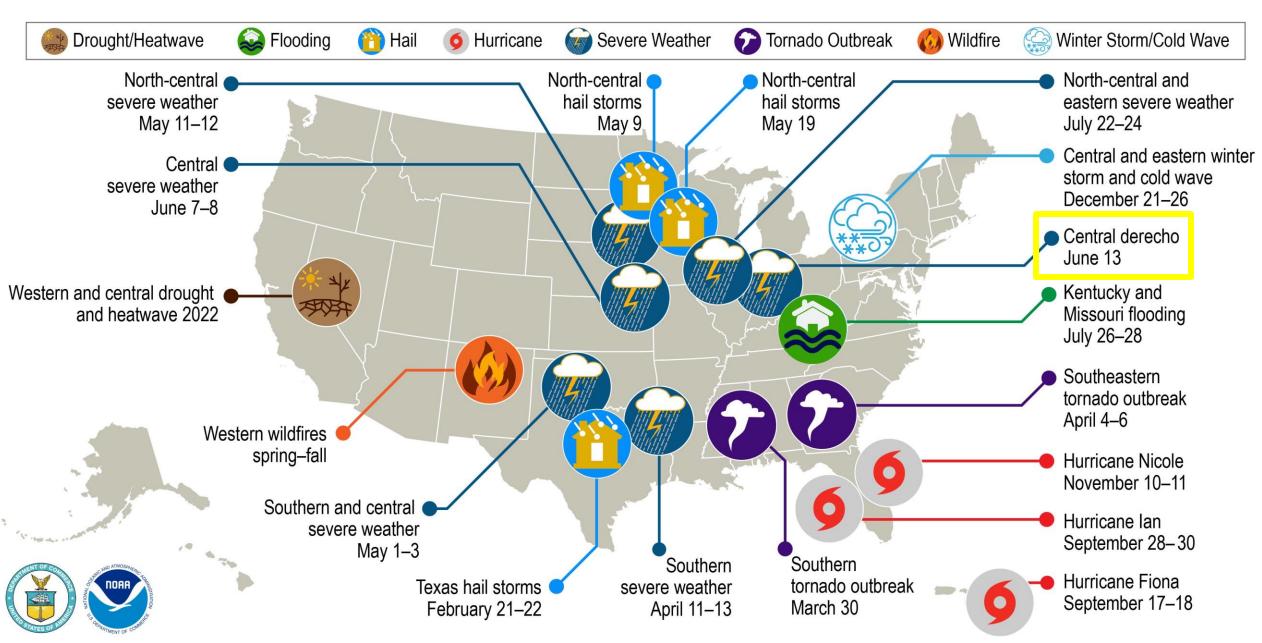


Tax revenues





#### Billion-Dollar Weather and Climate Disasters in 2022



This map denotes the approximate location for each of the 18 separate billion-dollar weather and climate disasters that impacted the United States in 2022.

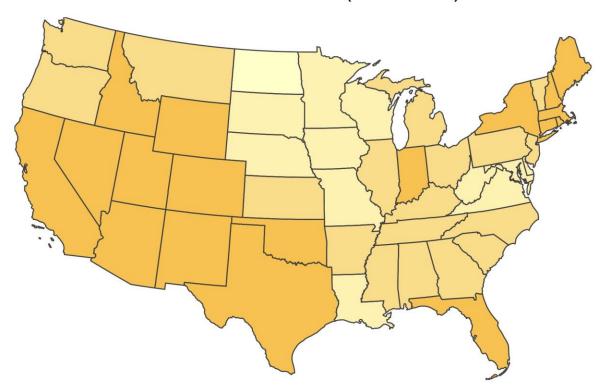


# Energy

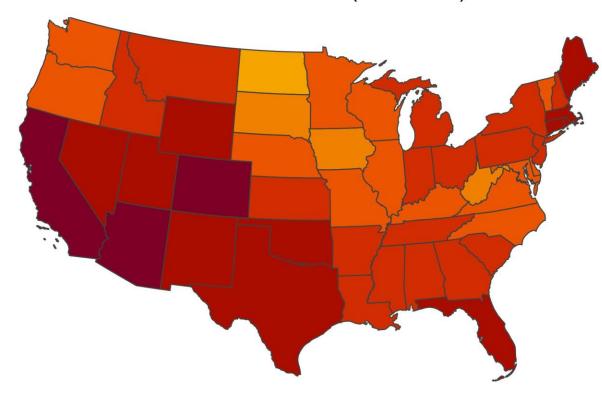
"Alternatives" by Katharine Cartwright (2022, Watercolor)

#### Projected Changes in Electricity Demand

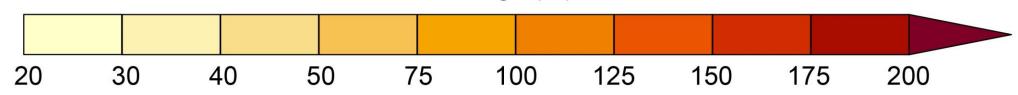
a) Percent change in annual electricity demand from 2020 to 2050 (SSP5-8.5)



b) Percent change in annual electricity demand from 2020 to 2100 (SSP5-8.5)







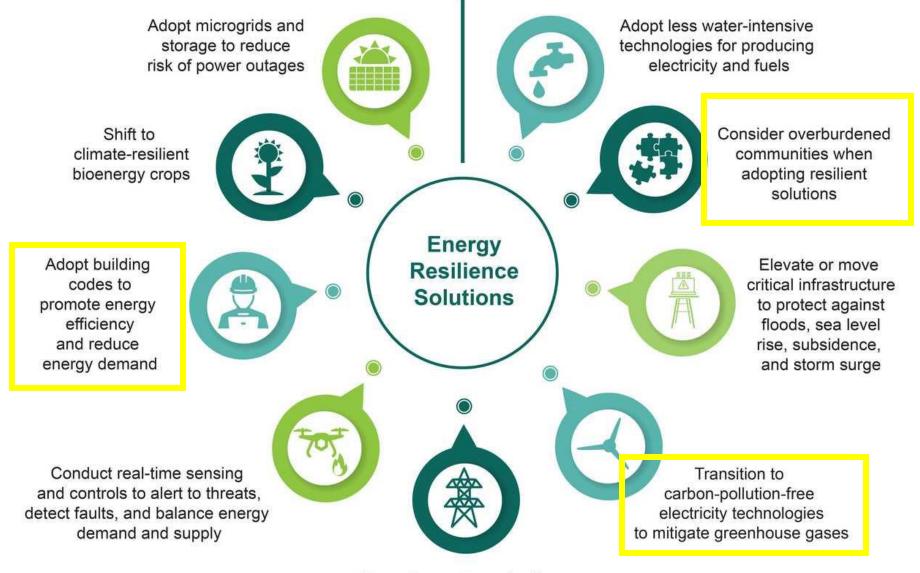
#### Climate Change Impacts on the Energy System **Energy Demand Electric Grid** Wind, Solar, and Hydropower · Extreme temperatures · Drought and · Winds, ice, floods, and Geothermal increase electricity and wildfires damage decreased · Extreme weather fuel demands beyond snowpack/runoff power lines and other damages oninfrastructure reduce electricity and offshore facilities production Extreme heat Cloudy or stagnant Flooding damages decreases conditions reduce solar equipment and transmission/distribuand wind production disrupts operations tion capacity · Drought limits water-intensive geothermal production min = Oil, Gas, and Coal · Extreme winds damage on- and offshore platforms · Flooding damages production and storage facilities · Drought and severe storms constrain drilling, refining, fracking, mining, and transport Thermoelectric Power Flooding damages facilities and disrupts **Fuel Transport** operations and Distribution · Higher air and water Biofuels and · Extreme weather temperatures decrease power plant damages storage Bioenergy **Pipelines** facilities, ports, rail efficiency and limit · Flooding, freezing, and lines, roadways, and cooling water temperature, floods, Refineries land subsidence water transport discharges and drought reduce damage pipelines and Flooding damages · Limited cooling water agriculture production · Loss of electricity facilities pump stations and biorefining, disrupts distribution availability reduces · Loss of electricity can production and siting impacting biofuel and · Power outages impact outlets and gas bioenergy supplies pump operations halt operations stations of new plants

capacity

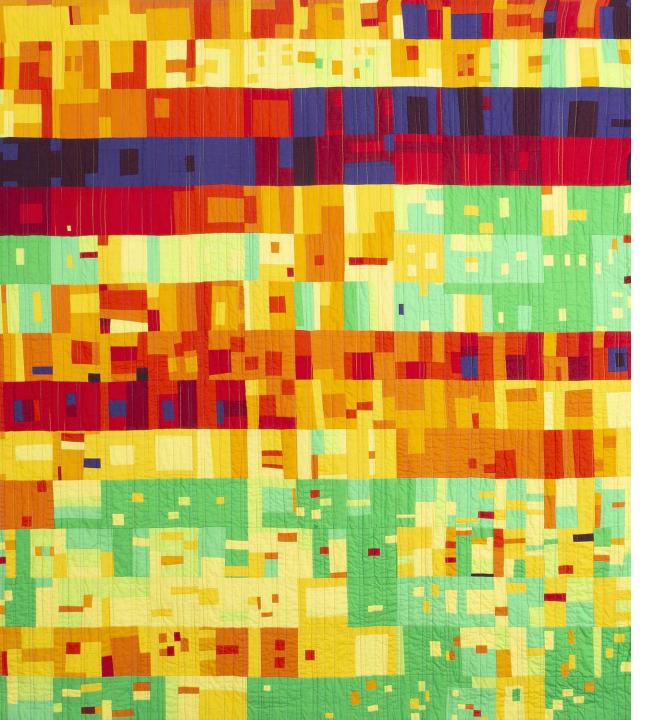
AA

Changes in

#### Potential Energy System Resilience Solutions



Strengthen or bury pipelines and power lines to protect against extreme wind, ice storms, and wildfires



## Health & Air Quality

"San Francisco Air Quality Fall 2020" by Lorraine Woodruff-Long (2020, Fiber)

## Climate Change Impacts on Ozone and Fine Particulate Matter (PM<sub>2.5</sub>) over the United States



Wildfires Ozone: + PM<sub>2.5</sub>: +

Increasing wildfires will degrade air quality.



Heatwaves Ozone: + PM<sub>2.5</sub>: +

High temperatures and clear skies can increase pollution.



Temperatures Ozone: + PM<sub>2.5</sub>: +

Overall, pollution concentrations will increase as temperatures rise.



Drought Ozone: + PM<sub>2.5</sub>: +

Drought will decrease uptake of ozone by vegetation and increase dust PM<sub>2.5</sub>.



Biogenic emissions Ozone: + PM<sub>2.5</sub>: +

Warmer temperatures will increase pollutant sources from vegetation and soil.



Precipitation
Ozone: Little change
PM<sub>2.5</sub>: -

Higher precipitation may wash out PM<sub>2.5</sub>.



Regional transport Ozone: ? PM<sub>2.5</sub>: ?

Transport of pollution may change, but the trends are unclear.



Humidity Ozone: -PM<sub>2.5</sub>: +

Higher humidity will reduce ozone but increase PM<sub>2.5</sub>.



Stagnation Ozone: ? PM<sub>2.5</sub>: ?

Pollutants accumulate during stagnant periods, but trends in stagnation are uncertain.

### Regional Examples of Alaska Climate-Sensitive Infectious Diseases Northwest Northern Great Plains Midwest Southwest Northeast Southeast Southern **Great Plains** Hawai'i and 🔎 **US-Affiliated** Pacific Islands **US Caribbean**

### Disease vectors and hosts (associated diseases)



Mosquitoes (e.g., West Nile virus encephalitis, dengue fever)



Ticks (e.g., Lyme disease, Rocky Mountain spotted fever)



Bats, cattle, other animals (e.g., rabies, brucellosis, other zoonotic diseases)

## Environmental pathogens (associated diseases)



Vibrio bacteria (vibriosis)



Coccidioides fungus (Valley fever)



Histoplasma fungus (histoplasmosis)



Cryptococcus fungus (cryptococcosis)



Naegleria fowleri amoeba (primary amebic meningoencephalitis)

#### Heat and Health Equity



- Historically redlined communities (BIPOC and low-wealth communities) are often hotter than other neighborhoods.
- Access to cooling centers is more limited in some areas.





 Certain populations are more vulnerable to extreme heat and have less access to healthcare.

i i di

 Socially isolated individuals may have less access to cooling centers.



- Energy costs and the costs of repairs limit the ability to afford air-conditioning.
- Low-wealth residents often live in homes that provide less protection against extreme heat.







- COVID-19 protocols reduced the accessibility and effectiveness of cooling centers.
- Disadvantaged populations are more at risk for heatrelated illnesses during power outages.

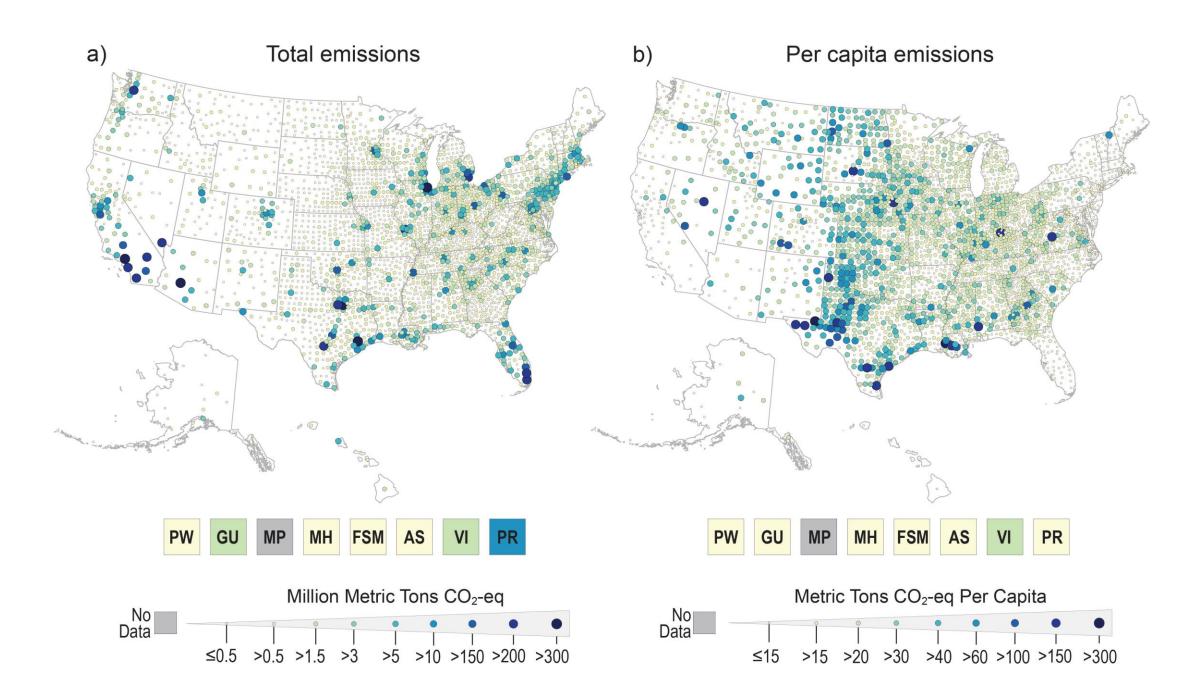


## Built Environments

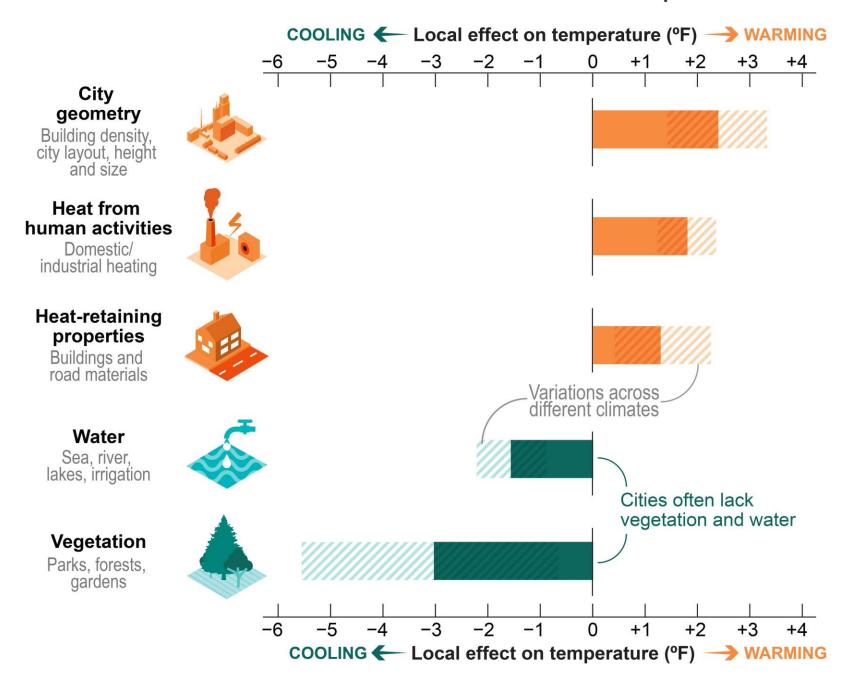
"Concrete Jungle" by Jessica Beshears

(2023, Digital Collage)

#### Greenhouse Gas Emissions by US County and Affiliated Territories



#### Effects of the Built Environment on Local Temperatures



#### Natural Infrastructure in Cities

#### Mitigation benefits

Sequester and store carbon

Reduce building energy use

Reduce municipal water use

Facilitate active mobility

#### Adaptation co-benefits

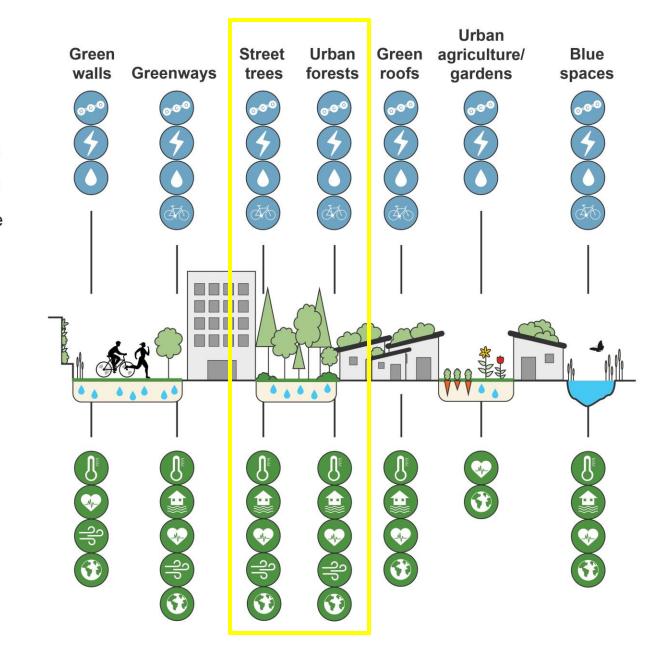
Reduce heat stress

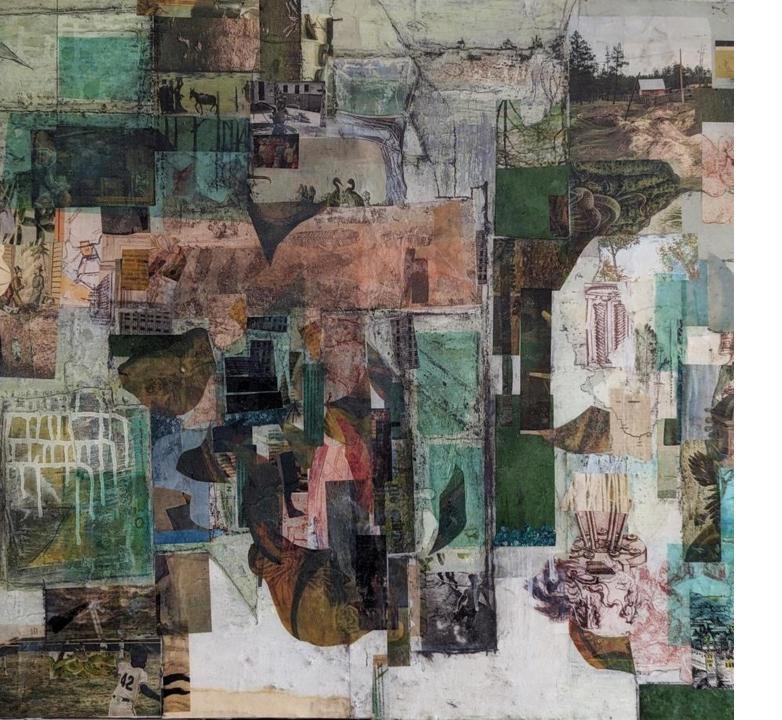
Reduce flooding

Improve health

Improve air quality

Promote biodiversity





# Where Do We Go From Here?

"The Way We Were" by Audrey Martin

(2022, Paper Scraps, Acrylic, Charcoal, Gouache)

#### Interacting and Overlapping Features of Human–Natural Systems

#### **Decisions and actions** Climate-related hazards Flooding Mitigation Drought Adaptation Wildfire Activities indirectly impacted by climate Heat **Actors** Non-climate influences Ways of knowing People Disruptions (e.g.,COVID-19) Scientific knowledge Governments Social inequities Indigenous knowledge Businesses Politics and power Local knowledge Communities Cultures Geographic scales **Sectors** Neighborhood Water Energy - City Health Region **Economics** Nation





## Closing Thoughts & Discussion

"Fear St. Pt. 1." by Diane Bronstein (2022, Original Photos, Embroidery Floss, Stretched Canvas)

#### **Discussion**

- Where are our opportunities for climate resilience? Mitigation?
- How can MORPC amplify existing climate work?
- How can that work be replicated across the region?
- Who are our biggest collaborators?
- Who else needs to be at the table?





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## Next EAQWG Meeting:

August 28, 2024 from 1 – 2:30 PM

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## APPENDIX

## **EAQWG LEADERSHIP**Roles & Responsibilities



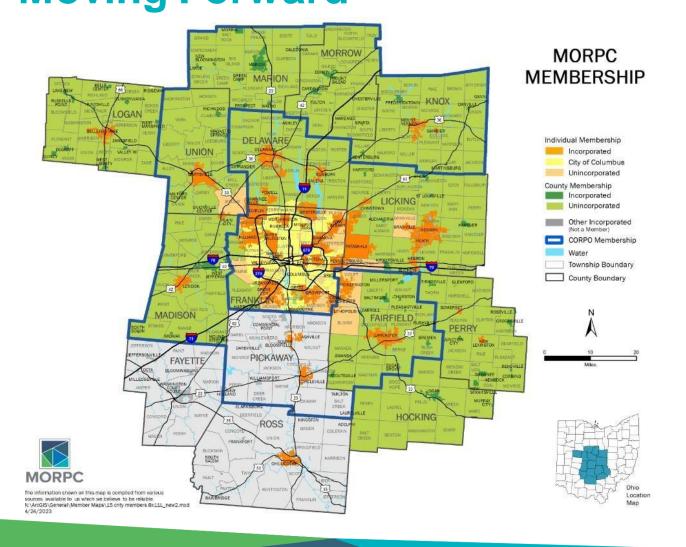
#### Chair

- Provide guidance & meeting facilitation for the QUARTERLY EAQWGmeetings
- Coordinate with MORPC staff & Vice-Chair to provide guidance on overall direction & priorities of EAQWG
- · Attendall meetings, or a majority, & notify MORPC staff & Vice-Chair in the event you can't attend
- Serve as the EAQWG representative to MORPC's Sustainability Advisory Committee (SAC)—meets 4x per year—& report out on EAQWG activities

#### Vice-Chair

- Coordinate with Chair & MORPC staff to provide guidance for the QUARTERLY EAQW G
  meetings & assist with facilitation as needed
- Serve as the backup for the Chair if they can't attend or facilitate a EAQW G meeting
- Serve as the backup for the Chair on the SAC if they can't attend or report out on EAQWG's
  activities

## **EAQWG LEADERSHIP**Moving Forward





#### Recruitment

- Want EAQWG to reflect MORPC's 15-county region
- Want expertise represented for all energy and air quality topics

#### Leadership

- Looking for new leadership
- Know anyone interested?

#### Nominate & Vote in 2024