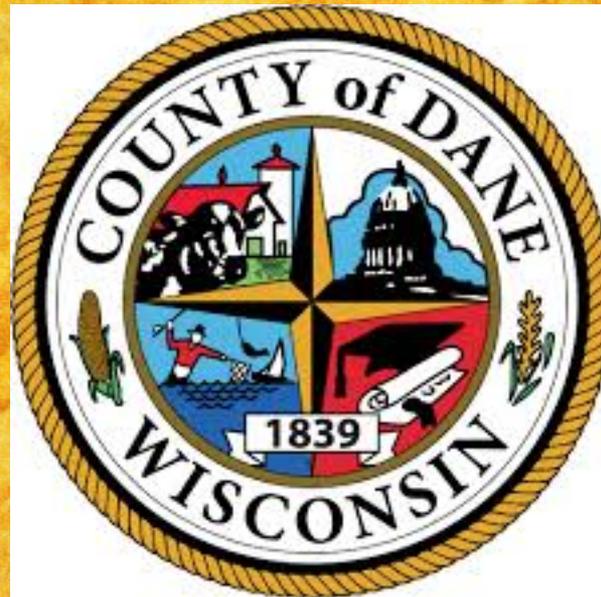


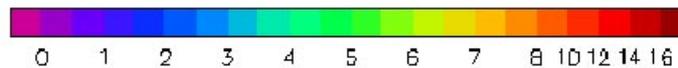
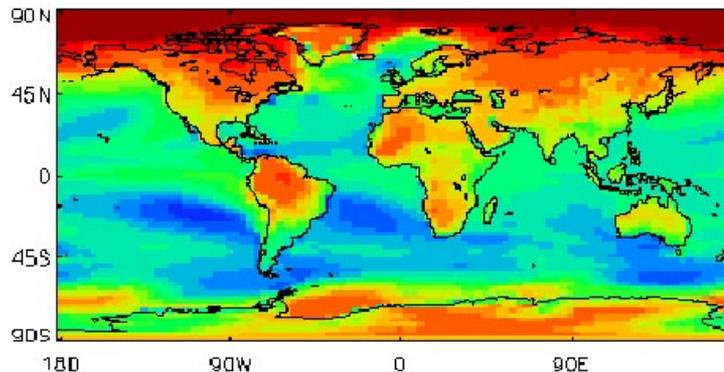
Office of Energy and Climate Change

Keith Reopelle, Director



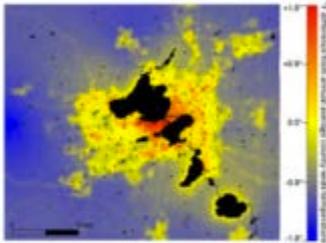
Office of Energy & Climate Change Charge:

- Plan, organize, develop and implement a county-wide climate change action plan;
- Coordinate and Direct the activities of the Dane County Climate Change Action Council;
- Coordinate programs of county departments;
- Oversee public relations and promotional activities of Dane County's climate change initiatives;
- Monitor and track the performance of these efforts to reduce climate change emissions and adapt to climate change;
- Provide technical assistance.



Building off of Prior Dane County Climate Work

Dane County
Climate Change and Emergency Preparedness



A Report
by the
Dane County Climate Change Action Council

- 2013 Dane County Climate Change Action Council
- 2016 Dane County Air Emissions Inventory
- LaFollette Capstone Climate Reports
- Emergency Management Natural Hazards Mitigation Plan
- Clean Energy Projects

How the County is Reducing its Impact

Homegrown Renewable Energy

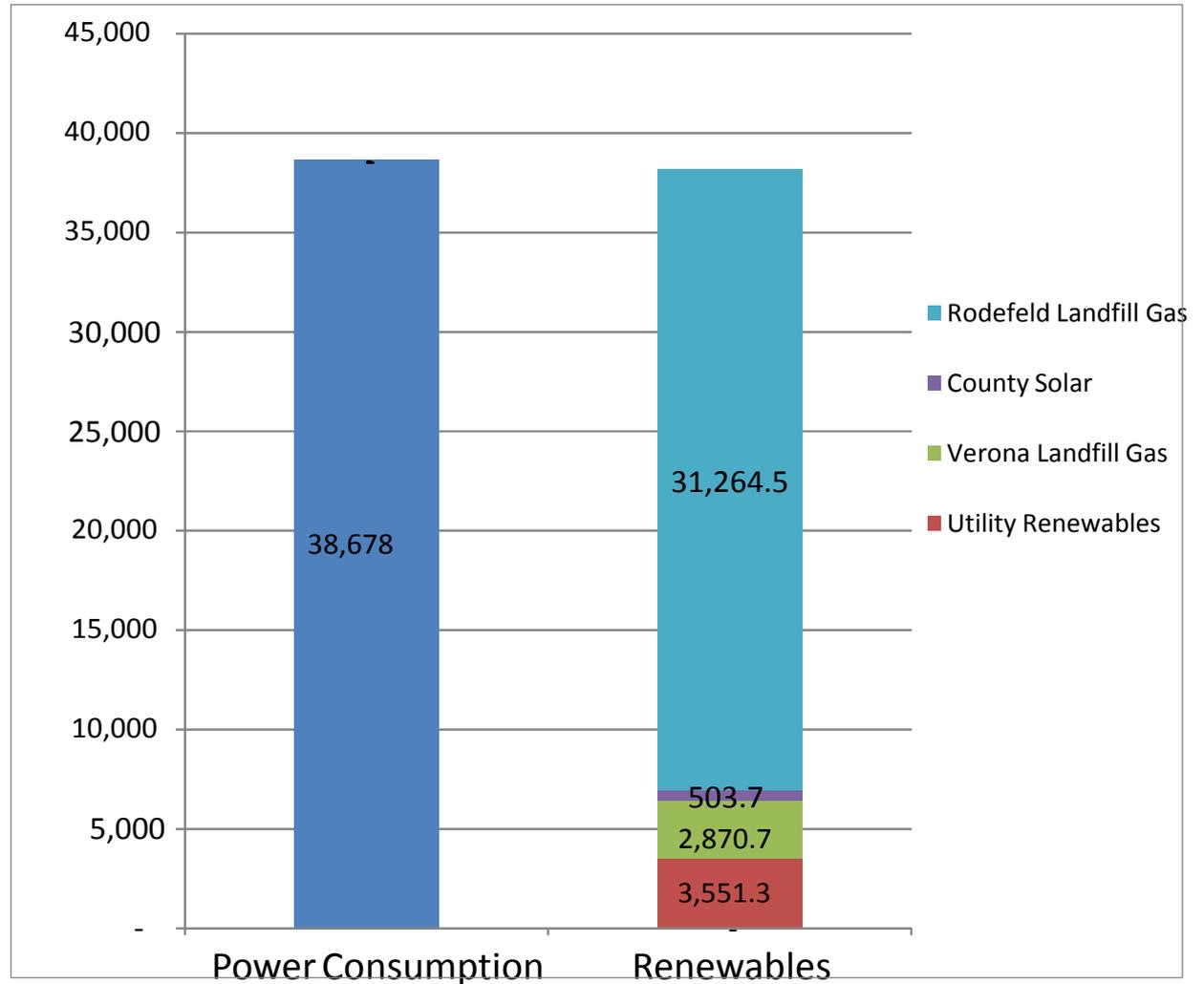
- Trash to Gas at the Landfill
- Bio CNG Transportation Fuel
- Solar PV

Clean Lakes Initiatives

- Cow Power Digesters
- Methane reduction equivalent to the emissions from over 4,000 cars



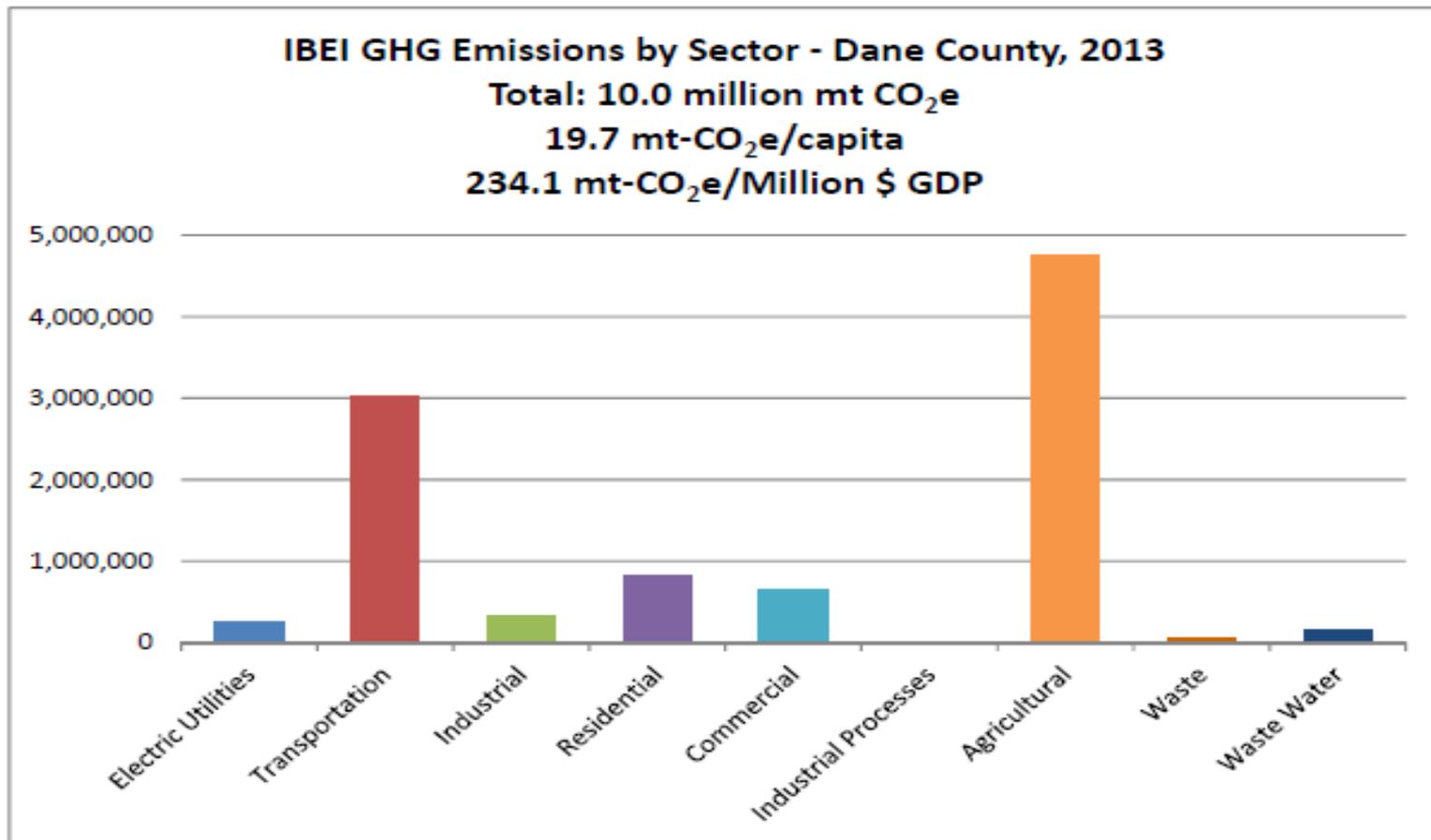
Dane County
2016
Operations
Electric Load
vs. Renewable
Generation
(MWh)



Dane County Air Emissions Inventory

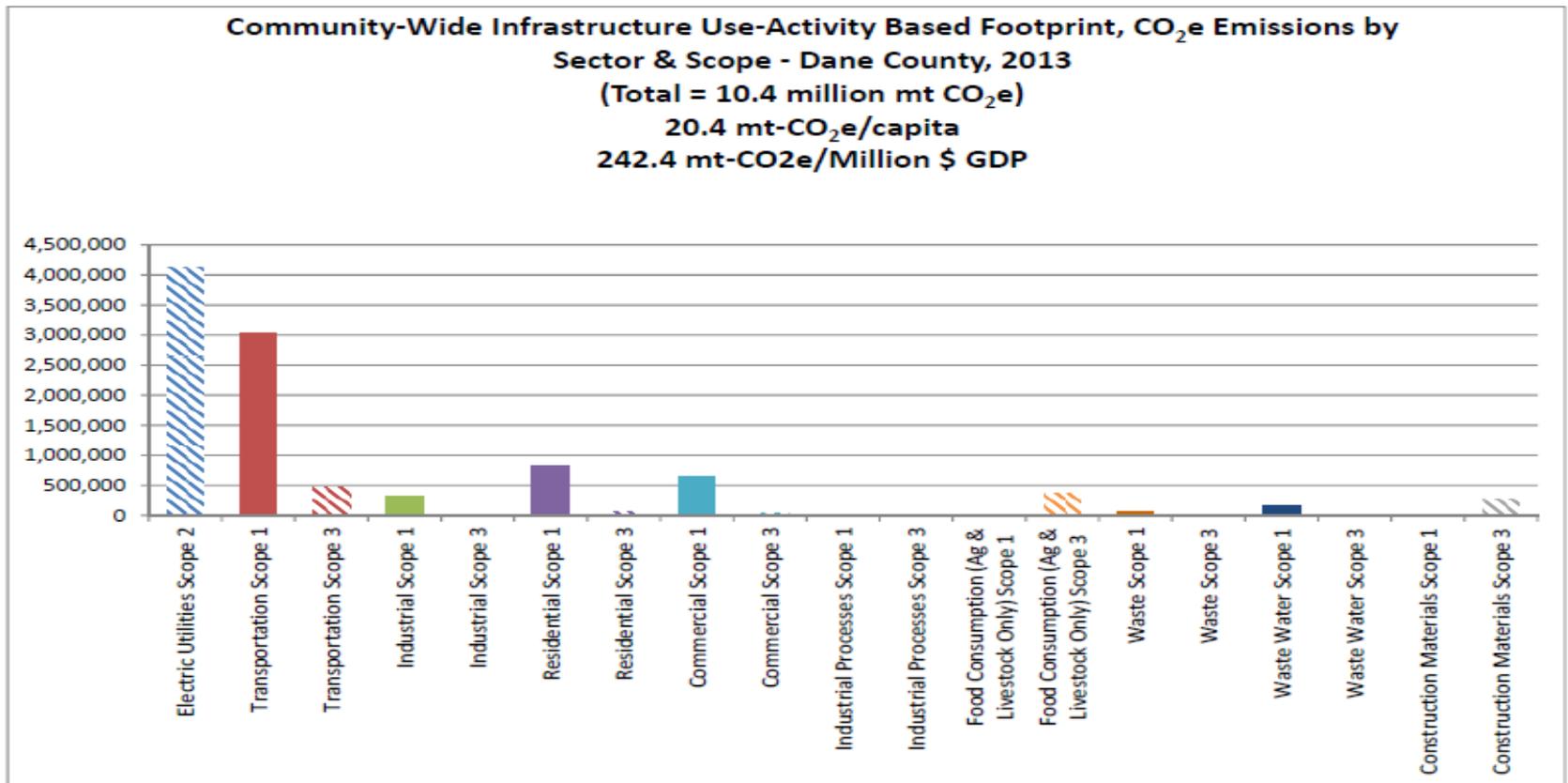
Univ. of Minnesota, Prorok et. al.

Figure 2: In-Boundary Emissions Inventory GHG Emissions by Sector – Dane County 2013



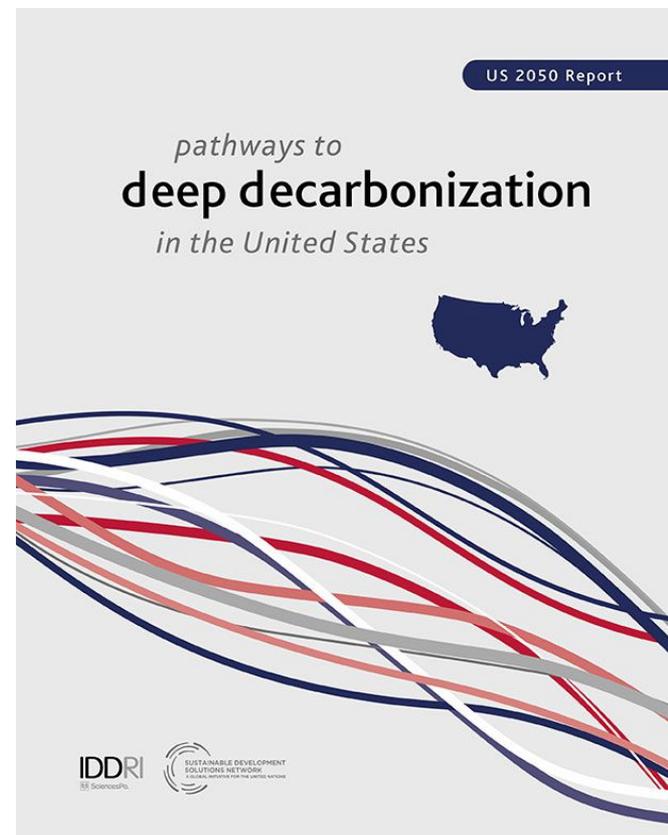
County-wide Infrastructure Use-Activity Footprint (i.e. imported electricity included)

Figure 5: Community-wide Infrastructure Footprint GHG Emissions by Sector



Dane County Climate Change Council Goal:

- Develop a climate mitigation action plan that will put Dane County on a path to deep decarbonization (GHG emissions), and establish Dane County as a national leader on climate mitigation.



Overarching Areas of Emphasis:

- Develop a climate mitigation action plan that:
 - demonstrates that deep de-carbonization policies, programs and projects will result in major **economic benefits**;
 - demonstrates that deep de-carbonization actions will result in major **health benefits**;
 - demonstrates that deep de-carbonization can be achieved in a **just and equitable** way; and
 - demonstrates how **rural and urban** citizens and stakeholders can come together and support and respect each other's roles in addressing one of the biggest challenges of our time.
 - Demonstrates how reducing GHGs will increase **energy security**.



Focus on Energy: 4 year period 2011 – 2014



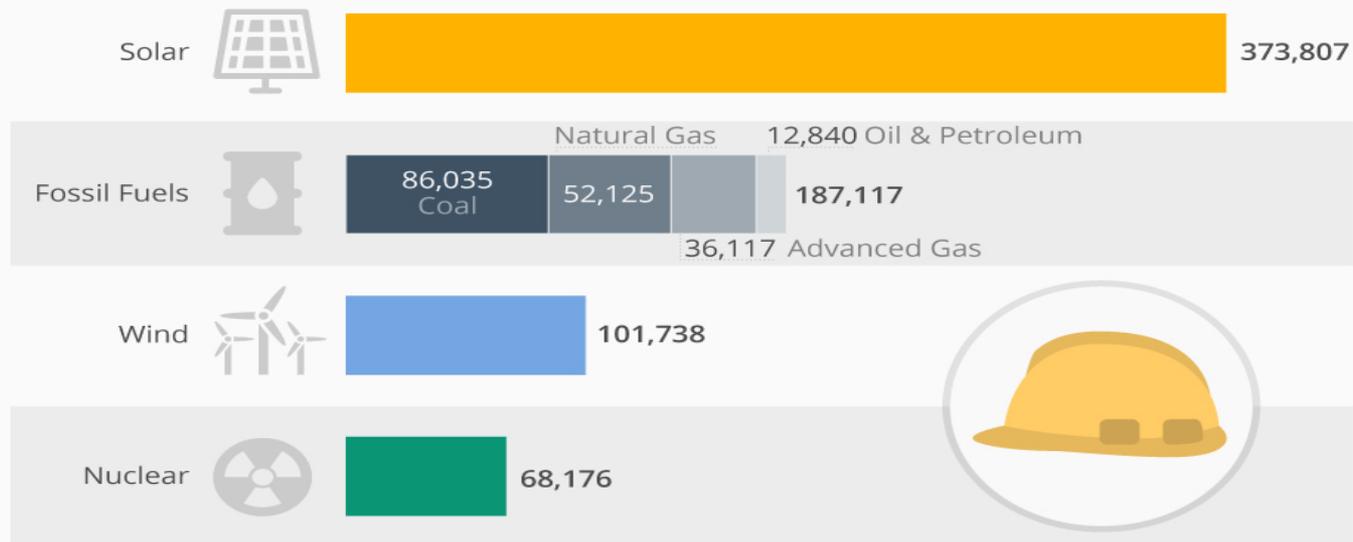
- Generated sales of \$5.5 billion
- Generated 6,200 net job years (and 13,000 out to 2038)
- Increased net personal income by \$1.4 billion
- Generated \$638 million in economic benefits (gross state income), (and \$2.8 billion out to 2038)
- Generated \$6.66 in economic benefit for every \$1 invested

Clean Energy = Jobs

2017 DOE Energy and Employment Report

More Workers In Solar Than Fossil Fuel Power Generation

Employment in energy generation by source in the U.S. in 2016



@StatistaCharts Source: U.S. Department of Energy

Forbes statista

Citi: Energy Darwinism II

Why a low-carbon future doesn't have to cost the earth.



- “The sums of money at stake in terms of investment in the energy sector are staggering — we estimate at \$190.2 and \$192.0 trillion between 2015 and 2040 for Citi’s ‘Action’ and ‘Inaction’ scenarios, respectively.”
- “However, going down the route of ‘Inaction’ would lead to a reduction in global GDP which could reach \$72 trillion by 2060 depending on temperature increase, scenario and discount rate used.”
- “and with the additional benefit of cleaner air, the ‘why would you not’ argument comes to the fore, an argument that becomes progressively harder to ignore over time.”

Climate Council Structure and Logistics

- The Council is a high priority for County Executive Parisi.
- Keith will lead Council meetings, others will staff them.
- The Council will meet approximately 3 times this year and 5 times next year.
- Most of the work will be done between Council meetings in sub-committees that will include non-council members.
- The Council will strive to make decisions by consensus.
- There will be an exceedingly high premium on innovation and creativity.



The Resulting Climate Action Plan will Include:

- GHG reduction targets (short, mid & long-term)
- An emissions inventory
- Carbon emission reduction policies (to be adopted at the municipal level and implemented in the public and private sectors).
- Carbon emission reduction projects.
- Carbon emission reduction programs.
- Modeling results

Working Groups of the Council will Include:

- Energy Efficiency
- Electricity Supply/Generation
- Agriculture, Forestry & Food
- Transportation & Land Use
- Buildings
- Water—Energy Nexus
- Adaptation
- Public Engagement
- Modeling



Renewable CNG Filling Station



Council Engagement Ground Rules

- Be present (take your cell phone outside room)
- One speaker at a time (speaker queue with table tents)
- No side conversations
- We value brevity
- Everyone participates, no one dominates (mullers & zappers)
- We assume positive intent (be respectful)
- Disagree without being disagreeable



Tracking Proposed Programs, Policies and Projects

- GHG reductions
- Equity (how accessible is the solution to all citizens)
- Cost
- Economic benefits
- Feasibility
- Temporal aspect (how soon can it get done)
- Health benefits, direct and co-benefits
- Energy Security (does it increase resiliency)

Policy/Program/Project Ideas to Get You Thinking

- Net Blue – Water Neutral Growth Initiative
- Expand compressed biogas to convert entire Dane Co fleet, then municipal fleets, then private
- Carbon Farming Program
- Dane County energy efficiency program

Challenge Yourself--and the Group/Council!!!

- To think BIG!
- To be creative and innovative!
- To grow and work together!



- “If rapid emission reductions do not begin soon, the burden placed on young people to extract CO2 emitted by prior generations may become implausibly difficult and costly.”

James Hanson et. al. July 18, 2017

Dane County Office on Energy and Climate Change

Questions?

Comments?

Suggestions?

reopelle.keith@countyofdane.com

608-283-1476

