FACT SHEET

TO FILE NO. 19-20/003

This resolution is an effort to join the world-wide effort to hold the increase in global average temperature to the limits agreed to by 195 nations in 2015 in the Paris Climate Agreement. This agreement sought to stabilize the global climate system by "holding the increase in the global average temperature to well below 2° C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5° C above pre-industrial levels". This effort is to be done by reducing the amount of "Greenhouse Gases(GHG)" released into the atmosphere.

What are Greenhouse Gases and what is their source?
https://www.epa.gov/ghgemissions/overview-greenhouse-gases

GHG's are generally defined to be carbon dioxide, methane, nitrous oxide and fluorinated gases.

1. Carbon Dioxide: This gas comprises 81% (2016 data) of GHG released into the atmosphere. The primary sources of CO2 are fossil fuels such coal, natural gas and oil products. Other sources are solid waste decomposition, wood products and tree decomposition. Living trees also absorb carbon dioxide.
2. Methane: (10% of US releases in 2016). The primary sources are the production and transport of coal, natural gas and oil. Livestock and agriculture practices also add to methane release. Landfill decay of organic waste is another source.
3. Nitrous Oxide-N2O: (6% of US releases in 2016). The primary sources are agriculture and industrial activities. The combustion of fossil fuels and solid waste is also a source.
4. Fluorinated Gases: (3% of US releases in 2016). These are synthetic gases emitted from a variety of industrial processes. These gases are generally emitted in small amounts, but are very potent.

Factors Affecting Greenhouse Gas Emissions:

1. Type and amount of fuel used.
2. Efficiency of a fuel burning device such as a furnace.
3. The amount of insulation in buildings requiring heat.
4. The number of miles driven and the type of driving conducted.
5. The amount of recycling involved to reduce waste going to a landfill and to reduce the amount of processing of raw materials for new products.

Sources of Greenhouse Gas Emissions in the US in 2016:
https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

1. Transportation: 28.5% This is primarily from the burning of fossil fuels. Over 90% of fuel used for transportation is petroleum based.
2. Electricity Production: 28.4% Approximately 68 percent of our electricity comes from burning fossil fuels, mostly coal and natural gas.
3. Industry: 22% This is primarily from fossil fuel used for energy and the release of GHG emissions from certain chemical reactions during the production process.

4. Commercial and Residential: 11% Greenhouse gas emissions from businesses and homes arise primarily from fossil fuels burned for heat, the use of certain products that contain greenhouse gases, and the handling of waste.
5. Agriculture: 9% Greenhouse gas emissions from agriculture come from livestock such as cows, agricultural soils, and rice production.
6. Land Use and Forestry: Neg. 11% Land areas can act as a sink (absorbing CO_2 from the atmosphere) or a source of greenhouse gas emissions. In the United States, since 1990, managed forests and other lands have absorbed more CO_2 from the atmosphere than they emit.

Plan of Action:

1. Determine current levels of greenhouse gas emissions within the County and including the City to use as a baseline.
2. Evaluate all infrastructure that the County owns for emissions and develop a plan to reduce and eliminate GHG (Greenhouse Gases) emissions.
3. Review all purchasing procedures to include a review of GHG emissions.
4. Determine the value of the County forests in reducing greenhouse gases.
5. Evaluate the need and ability to regulate construction and production within the County by means of codes and/or education to reduce GHG emissions.
6. Evaluate the current transportation operations within the County and develop a transportation plan to reduce emissions.
7. Establish relationships with the City of Eau Claire, the University of Wisconsin-Eau Claire, Chippewa Valley Technical College, School Districts, County retail and industry, PACE Wisconsin, and other cities and Towns within the County to reach the same goals.
8. Establish relationships with the power production companies within the County to procure carbon free energy.
9. Establish programs with the agriculture community to minimize and/or eliminate Green House Gas emissions.
10. Develop a plan to monitor the County's progress in achieving the goals.
11. What else?

Fiscal Impact: $10,000 in 2019.

Respectfully Submitted,

James Dunning
Supervisor, District 18

Lydia Boerboom
Supervisor, District 16

SUSTAINABILITY RESOLUTION WORKPLAN

Draft

March 21, 2019

I. Developing the Carbon Baseline
   1. Electrical use in all County Buildings
   2. Amount of electricity from renewable sources used by the County government.
   3. Amount of gasoline and diesel fuel purchased during the year by the County government.
   4. Identify other energy sources used by County government and document usage.
   5. Estimate of entire County electrical energy used in a year.
   6. Estimate of entire County fuel purchased during the year.
   7. Estimate of energy from renewable sources used by the entire County.
   8. Identify other energy sources used by the entire County and estimate usage
   9. Identify agriculture impact to energy usage and GHG emissions from agriculture practices.
   10. Identify industrial GHG emissions and estimate quantity.
   11. Identify land fill emissions and estimate quantity.
   12. Estimate Greenhouse Gas emissions based on energy usage.
   13. Estimate the effect of County forest land on reducing carbon emissions
   14. Investigate other possible sources of GHG emissions
   15. Set targets for emissions and dates

II. Areas of Energy Control
   1. County Government
      a. Vehicle purchases
      b. HVAC purchases
      c. Energy purchases
      d. Energy use education
      e. Building operation
      f. Purchasing decisions
      g. Adjust office operations functions.
      h. IT operations
      i. Develop transportation alternatives
      j. Other
   2. County as a Whole
      a. Energy use education
      b. Greenhouse Gas emissions education
      c. Review building permit requirements (I.E: Solar panel connections in new construction)
      d. Review building permit requirements for emissions

e. Promote remodeling to improve energy efficiency and emissions control
f. Promote bio-mass conversion to fuel

3. -----
   a. ----

III. Program Incorporation

1. Search out and apply for grants to assist with implementation.
2. Incorporate IT programs to monitor usage and calculate emissions.
3. Incorporate new technologies and energy sources into County buildings as equipment is replaced.
4. Investigate investing in solar panels at the airport and County forest property.
5. Promote new building solar panels-Industry/Residential
6. Promote new building geo-thermal incorporation-Industry/Residential
7. Promote new building LEEDS implementation-Industry/Residential
8. Evaluate the use of wind generators at rural development.
9. Investigate financial incentives.
10. Include goals in Department workplans
11. Promote the use of PACE for financial assistance to businesses.

IV. Technology Investigation

1. Investigate any new technology for County application.
2. Evaluate alternative sources of energy
3. Evaluate new road materials
4.

V. To Be Continued

FISCAL IMPACT ANALYSIS
SUSTAINABILITY RESOLUTION

The resolution requires the County to determine a baseline of the net carbon usage in the government operations and the community and to evaluate the progress. This will require planning and action initiatives to achieve the sustainability goals. It will also require working with the City of Eau Claire's Sustainability Advisory Committee and many other government and civic entities in the community. As a result of this action there will be a need to incorporate many management decisions into future purchases, legislation, new sustainable technologies and practices. There will be a cost to these actions at the time of implementation.

An estimate of the type of cost inputs required for the initial implementation are as follows:

1. Budget Adjustment Requirements **See page 2 for details.**
   a. Initial staff involvement in data collection for developing current status, grant application, software purchases, City collaboration and intern supervision.

      FY 2019 Budget Est. Amount $10,000

   b. Application for State of Wisconsin Office of Energy Innovation Grant. The purpose of the grant would be to verify the base line data and to develop program ideas and a plan of action that can be implemented into County and Community operations in future years.

      FY 2020 Capital Projects Fund Est. Amount for matching funds: $50,000

2. Continuing Budget Requirements
   a. Once the initial baseline is developed and a plan of action is determined, the cost will become part of the annual operations budget for program development and the Capital Projects budget. Departmental work plans will be developed on an annual basis with a long-term emphasis on achieving the sustainability goals. The development of buildings, equipment purchases, supplies, and support will be part of these plans. This will be over a 31 year timeline so the replacement of capital equipment and projects will occur several times.

Respectfully Submitted,

James Dunning
Supervisor, District 18

Lydia Boerboom
Supervisor, District 16

DETAIL OF FISCAL IMPACT ANALYSIS

FILE NO. 19-20/003

SUSTAINABILITY RESOLUTION

1. Budget Adjustment Requirements
   a. Department staff attending collaboration meetings with the City of Eau Claire and UWEC in 2019

Estimated	20 hrs @ $100/hr	$2,000

   b. Developing the current baseline data, collecting data, and developing a collection process. Accomplished by an intern.

Estimated	100 hrs @ $20/hr	$2,000

   c. Software and Membership purchases for data processing

Software to be Determined	$2,000
Memberships to be Determined	$ 500

   d. Staff Training, Seminars, Travel

Estimated	2 events @ $400 each	$ 800

   e. Grant Application Development by Intern
      Wisconsin Office of Energy Innovation Grant or similar grant

Estimated	25 hrs @ $20	$ 500

   f. Unknown Expenses in 2019 - Estimated $2,200

   g. TOTAL FUNDS REQUESTED FROM CONTINGENCY FUND TO BE DISTRIBUTED AS NEEDED $10,000

RESOLUTION PRESENTATION NOTES

March 26, 2019

Jim Dunning

Lydia Boerboom

Paris Climate Agreement Goals:

1. Holding temperature increases
2. Achieve this by reducing Greenhouse Gases (GHG)
3. Reduce GHG by:
   a. Reduce CO2 by reducing fossil fuel use.
   b. Reduce Methane by reducing production sources in industry, agriculture and landfills.
   c. Reduce N2O (Nitrous oxide) found in agriculture and industrial activities (fossil fuels)
   d. Reduce fluorinated gases in industrial processes.

4. Major Sources
   a. Transportation 28.5%
   b. Electricity Production 28.4%
   c. Industry 22%
   d. Commercial/Residential 11%
   e. Agriculture 9%
   f. Land Use/Forestry -11%

5. Current Efforts
   a. Xcel Energy has calculated carbon emissions for Eau Claire County customers
   b. Xcel has set a goal of 100% renewable energy by 2050.
   c. Calculations on carbon emissions for the County operations and community has begun.

6.

Enrolled No. RESOLUTION File No. 19-20/003

- RESOLUTION TO ESTABLISH GOALS OF 100% RENEWABLE ENERGY AND CARBON NEUTRALITY BY THE YEAR 2050 FOR EAU CLAIRE COUNTY AND TO AMEND THE BUDGET TO MOVE $10,000 FROM CONTINGENCY FOR INITIAL PLANNING-

WHEREAS, the Paris Climate Agreement seeks to stabilize the global climate system by "holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels"; and,

WHEREAS, climate scientists have determined this upper temperature limit to be the best feasible scenario in managing climate change impacts (such as extreme weather events and sea level rise) that threaten public safety, infrastructure, private property and economic prosperity; and,

WHEREAS, Wisconsin pays an estimated $14 billion dollars to states with fossil fuel resources and is last in per capita workforce in the clean energy economy compared to other Midwestern states. Pursuing these goals will reduce out-of-state monetary flows, recycle dollars back into the local economy, spur local economic development and create jobs; and,

WHEREAS, the City of Eau Claire passed a 100% Renewable Energy and Carbon Neutrality Resolution in March 2018 to achieve these goals; and,

WHEREAS, Eau Claire County approved Resolution 09-10/102 in October 2009 to support the State of Wisconsin's goals for energy independence and to be eligible to gain access to its accelerated technical and financial assistance; and,

WHEREAS, Eau Claire County approved Resolution 15-16/073 to join the Wisconsin Department of Natural Resources in partnership with the League of Wisconsin Municipalities and multiple organizations and communities in participating in the GREEN TIER LEGACY COMMUNITY PROGRAM; and,

WHEREAS, by signing the GREEN TIER LEGACY COMMUNITY PROGRAM, the County is committed to meeting the goals of the Legacy program with regards to developing a sustainability Implementation and Monitoring Plan; and,

WHEREAS, the County envisions a climate and energy planning process that will reflect community values and stakeholder participation to develop low-carbon means to reach these goals. Stakeholders include all county residents, low-income and minority populations, large and small businesses, local utilities, the educational community, institutions, the building and construction sector, transportation providers, waste companies, Towns and municipalities within the County, and many others; and,

WHEREAS, the County recognizes the process to achieve these ambitious goals represents a journey that needs to be realistic and sensitive to unintended impacts. Careful and ongoing planning is necessary to understand what is practical in the short term while ratcheting up efforts in the mid and long-term target ranges, where technological advancements occur and costs decline; and,

WHEREAS, the Eau Claire Chamber of Commerce's position is "Economic growth and environmental progress go hand in hand. Responsible stewardship of our resources can both grow our economy and preserve the planet;" and,

WHEREAS, a 2017 community sustainable development survey revealed public support in the County of Eau Claire for pursing aggressive municipal and community goals, and further, demonstrated a willingness to pay slightly more in making the transition; and (Ref. Clean Wisconsin Survey by Fairbank, Maslin, Maullin, Metz and Associates, Dec 2017)

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Eau Claire County, that it adopts the following sustainability goals:

1) Achieve Eau Claire County government and community carbon neutrality by 2050 with incremental drawdown targets of 5% by 2020, 25% by 2030, 30% by 2040 and 40% by 2050.

2) Obtain 100% renewable energy by 2050 for the Eau Claire County government,

3) Assist the County Community in achieving the 100% renewable energy goal by 2050; and,

BE IT FURTHER RESOLVED that the County will undertake planning and action initiatives to establish baseline data and to prepare a plan to achieve the sustainability goals and to engage in a periodic evaluation of progress; and,

BE IT FURTHER RESOLVED to collaborate with the City of Eau Claire's Sustainability Advisory Committee, other governmental bodies within the County, PACE Wisconsin, UWEC, CVTC, school districts, other civic entities, and encourage community participation; and,

BE IT FURTHER RESOLVED that County government will continue to evaluate and incorporate new sustainable technologies and practices into future management decisions, purchases and construction projects; and,

BE IT FURTHER RESOLVED to move $10,000 from the contingency fund for initial planning.

Committee on Finance & Budget

Committee on Planning & Development

KRZ/yk

(1) Dated this 26th day of March, 2019.

ORDINANC/19-20/003

(2) 8th day of April 2019

APPROVED BY CORPORATION COUNSEL AS TO FORM

Reviewed by Finance Dept. for Fiscal Impact