

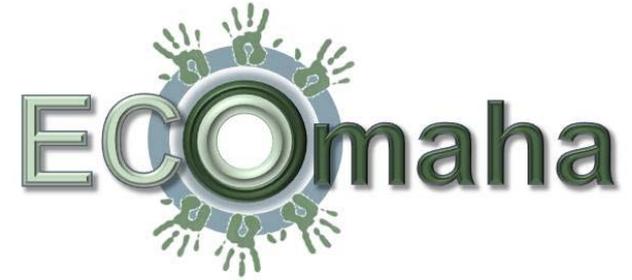
SUSTAINABILITY @ CITY

Kristi Wamstad-Evans

City of Omaha

Sustainability Coordinator

Office of Sustainable Development



- Formed in 2009
- Part of the Planning Department
- Coordination of Energy Grants and Environment Element implementation
- Working across all departments and with the Mayor and his staff to catalyze sustainability within the municipality & community
- Staff:
 - Kristi Wamstad-Evans, Sustainability Director
 - Eric Williams, Sustainability Planner (reEnergize)
 - Jason Kubicek, Sustainability Planner (reEnergize)
 - Ryan McClure, Sustainability Planner (EECBG)
 - Erin Cheese, Intern



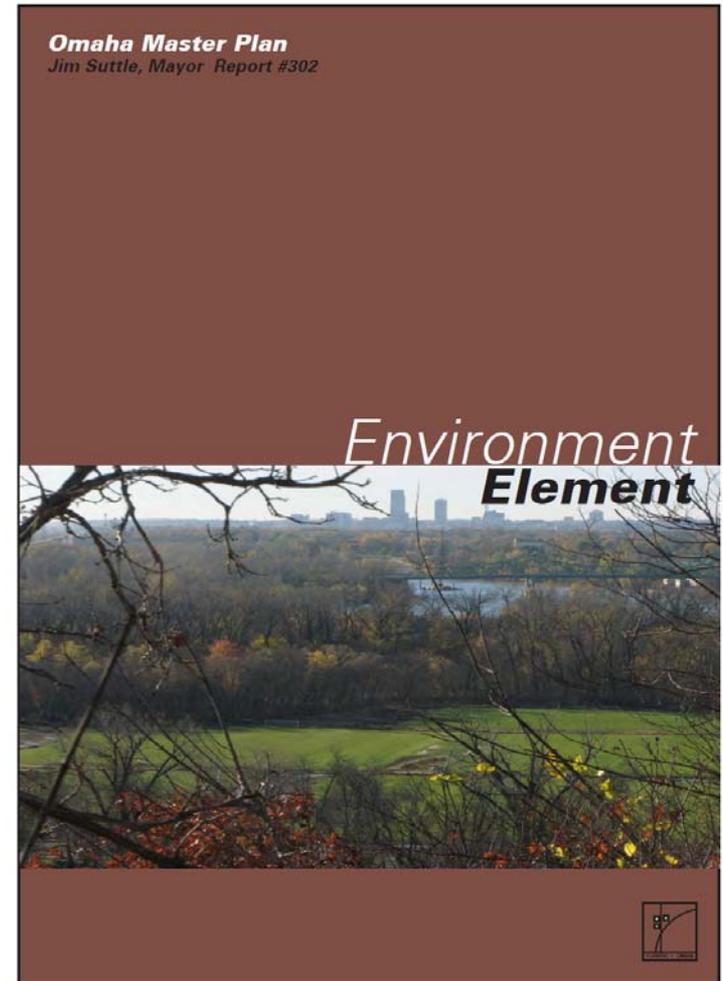
Omaha's \$4.3M EECBG: Energy Efficiency and Conservation Block Grant



POLICY EFFORTS

Environment Element

- **Goals/Objectives/
Strategies in 5 areas:**
 - Natural Environment
 - Urban Form and
Transportation
 - Building Design and
Construction
 - Resource Conservation
 - Community Health



Passed City Council December 17, 2010

www.cityofomaha.org/ecomaha/images/stories/pdfs/EnvironmentElement2010.pdf

Companion Documents



CITY OF OMAHA
2009 Energy Profile

December 2011

Prepared for the City of Omaha by




CITY OF OMAHA
2009 Emissions Inventory Report

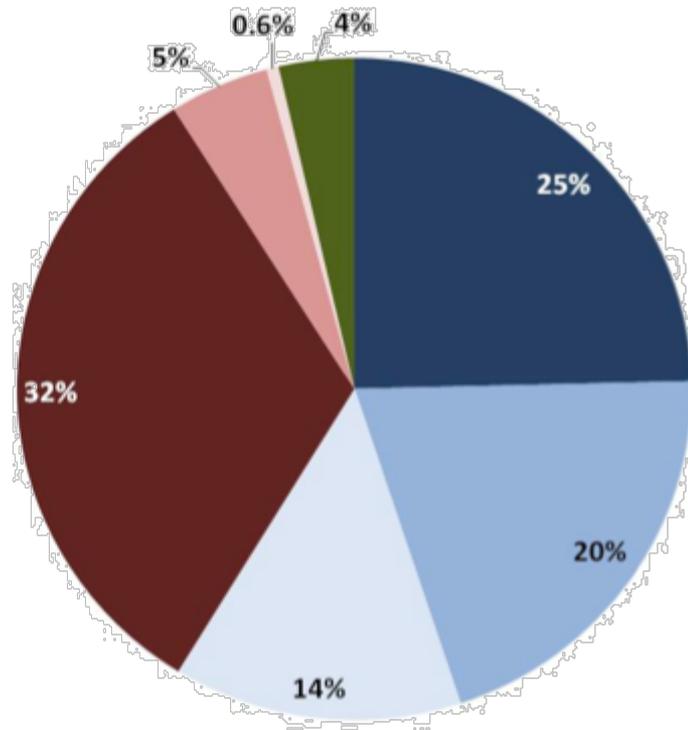
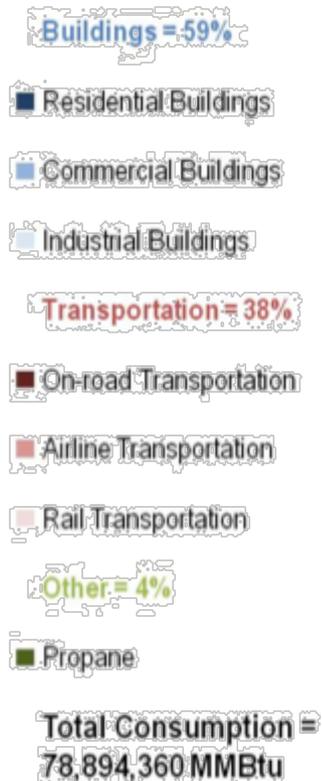
December 2011

Prepared for the City of Omaha by


CITY OF OMAHA

COMPREHENSIVE ENERGY MANAGEMENT PLAN

Community Energy Profile



Base data year: 2009

GHG Emissions by Sector (2009)

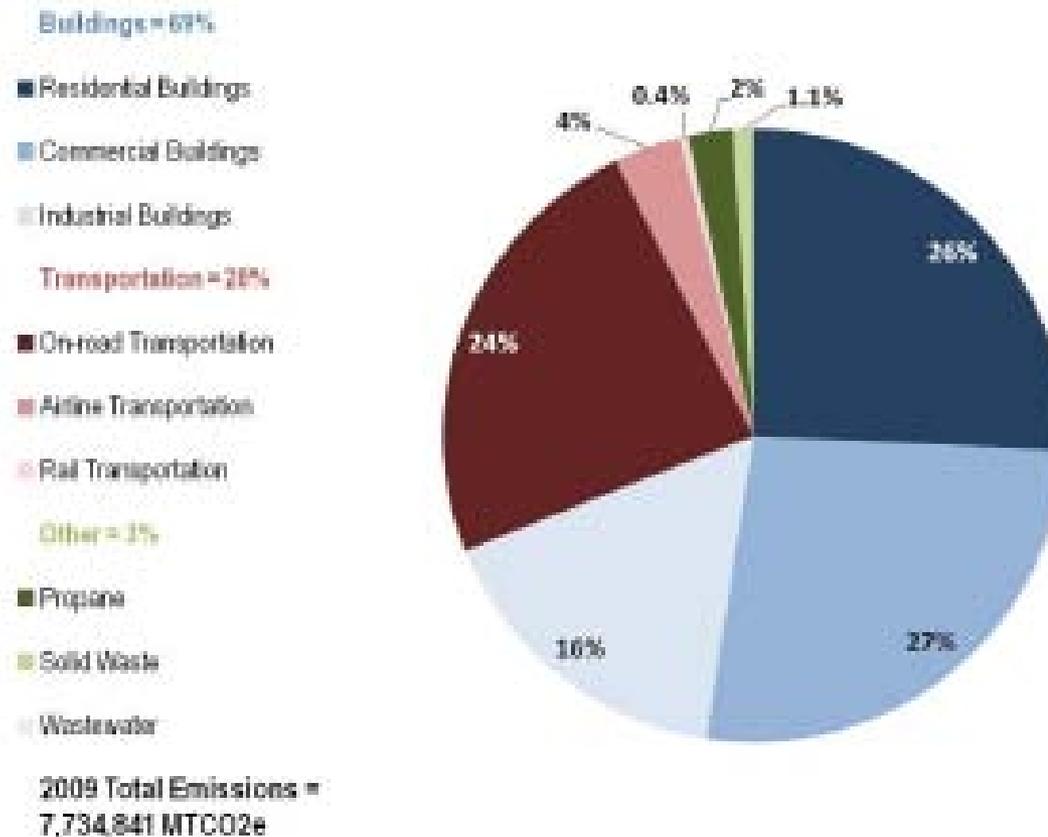
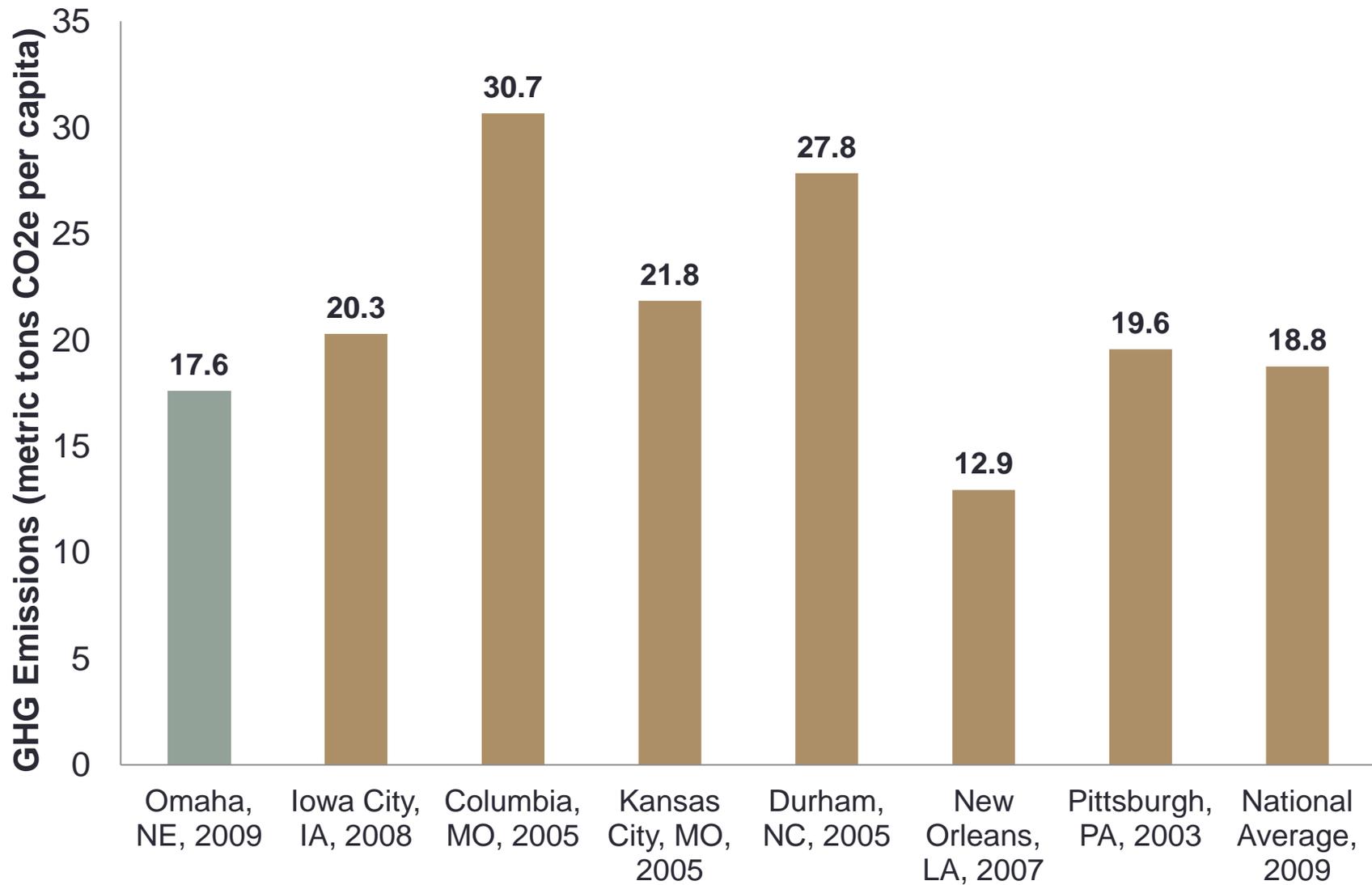


Figure 3. 2009 Community GHG Emissions by Sector



File Home Insert Page Layout Formulas Data Review View Developer

Normal Page Layout Page Break Preview Custom Views Full Screen

Ruler Formula Bar Gridlines Headings

Zoom 100% Zoom to Selection

New Window Arrange All Freeze Panes

Split Hide Unhide

View Side by Side Synchronous Scrolling Reset Window Position

Workbook Views Show Zoom Window

B1

<p>SOURCE DATA</p> <p>Reporting Year: 2011</p> <p>Data Collected for Reporting Community</p> <p>Electricity Data <input type="checkbox"/> Municipal <input type="checkbox"/> Community <input type="checkbox"/></p> <p>Electricity Generation Data <input type="checkbox"/> Community <input type="checkbox"/> Municipal <input type="checkbox"/></p> <p>Natural Gas Data <input type="checkbox"/> Municipal <input type="checkbox"/></p> <p>Propane Data <input type="checkbox"/></p> <p>Fuel Oil Data <input type="checkbox"/></p> <p>On-Road Transportation Data <input type="checkbox"/> WHT <input type="checkbox"/> NE Dept of Road <input type="checkbox"/> Nat'l Vehicle Stat</p> <p>Airline Travel Data <input type="checkbox"/> Passengers <input type="checkbox"/> City Fraction <input type="checkbox"/> Nat'l Travel Stat</p> <p>Rail Data <input type="checkbox"/></p> <p>Municipal Fleet <input type="checkbox"/></p> <p>Municipal Financed Travel <input type="checkbox"/></p> <p>Solid Waste Data <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/></p> <p>Wastewater Treatment Data <input type="checkbox"/></p> <p>Population Data <input type="checkbox"/></p>	<p>GHG RESULTS</p> <p>COMMUNITY</p> <p>Results Summary</p> <p>Emissions by Sector</p> <p>Pie Chart (Reporting Year) Annual Trend</p> <p>Emissions by Source</p> <p>Pie Chart (Reporting Year) Annual Trend</p> <p>Emissions by Scope</p> <p>Pie Chart (Reporting Year)</p> <p>Emissions Per Capita Benchmark Emissions Forecast</p> <p>Emissions Factor Comparison</p>					<p>GHG RESULTS</p> <p>MUNICIPAL</p> <p>Results Summary</p> <p>Emissions by Sector</p> <p>Pie Chart (Reporting Year) Annual Trend</p> <p>Emissions by Source</p> <p>Pie Chart (Reporting Year) Annual Trend</p> <p>Emissions by Scope</p> <p>Pie Chart (Reporting Year)</p> <p>Emissions Per Capita Benchmark</p>					<p>URBAN FORM AND TRANSPORTATION</p> <p>UFT.G1: Transportation & Mobility</p> <p>Indicators</p> <p>Transportation & Mobility Indicators</p> <p>UFT.G1.IM1: Mode Split</p> <p>UFT.G1.IM2: Commuting Mode Split</p> <p>UFT.G1.IM3: Vehicle Miles Traveled</p> <p>Activities</p> <p>UFT.G1.A1: Bike/Ped</p> <p>UFT.G1.A2: TDM</p> <p>UFT.G1.A3:</p> <p>UFT.G1.A4: Parking Standards</p> <p>UFT.G1.A4.M1: Transit Ridership</p> <p>UFT.G1.A4.M2: Downtown Parking</p> <p>UFT.G1.A4.M3: Outside DT Parking</p> <p>UFT.G1.A4.M4: Road Lane Miles</p> <p>UFT.G2: Alternative Fuels and Infrastructure</p> <p>UFT.G3: Compact and Complete Communities</p> <p>Indicators</p> <p>Complete Communities Indicators</p> <p>UFT.G3.IM1: Population Density</p> <p>Activities</p> <p>UFT.G3.A1: Compact Development</p> <p>UFT.G3.A1.M1: Land Use Density</p> <p>UFT.G3.A1.M2: Infill LU Density</p> <p>UFT.G3.A1.M3: Infill Development</p> <p>UFT.G3.A1.M4: Dvpmr Gross Density</p> <p>UFT.G3.A1.M5: Land Use Diversity</p> <p>UFT.G3.A1.M6: Community Linkages</p>					<p>RESOURCE CONSERVATION</p> <p>RC.G1: Energy Supply</p> <p>Indicators</p> <p>Energy Supply Indicators</p> <p>RC.G1.IM1: Total Renewable E</p> <p>Activities</p> <p>RC.G1.A1: RE Incentives</p> <p>RC.G1.A1.M1: Distributed</p> <p>RC.G1.A2: Utility-Scale Rb</p> <p>RC.G1.A2.M1: Utility-Scale</p> <p>RC.G2: Energy Use</p> <p>Indicators</p> <p>Energy Use Indicators</p> <p>RC.G2.IM1: Total Energy U</p> <p>Activities</p> <p>RC.G2.A1: Energy Efficiency</p> <p>RC.G2.A1.M1: EUI</p> <p>RC.G2.A1.M2: Incentive Invest</p> <p>RC.G2.A2: Rox</p> <p>RC.G2.A2.M1: Re-Commissio</p> <p>RC.G2.A3: Biz Program</p> <p>RC.G2.A3.M1: Business Prog</p> <p>RC.G2.A3.M2: Energy Use</p> <p>RC.G2.A4: TO8</p> <p>RC.G2.A4.M1: TO8 Efficiency A</p> <p>RC.G2.A5: CAFE</p> <p>RC.G2.A5.M1: Avg Fuel Econ</p> <p>RC.G3: Industrial Sector Energy Use</p>				
	<p>ENERGY RESULTS</p> <p>COMMUNITY</p> <p>Results Summary</p> <p>Energy Use by Sector</p> <p>Pie Chart (Reporting Year) Annual Trend</p> <p>Energy Use by Source</p> <p>Pie Chart (Reporting Year) Annual Trend</p> <p>OPPD Retail Sales</p>					<p>ENERGY RESULTS</p> <p>MUNICIPAL</p> <p>Results Summary</p> <p>Energy Use by Sector</p> <p>Pie Chart (Reporting Year) Annual Trend</p> <p>Energy Use by Source</p> <p>Pie Chart (Reporting Year) Annual Trend</p>														

Key for Worksheet Cell Color Coding

omaha energy plan

Welcome About the Plan Energy Profile Benefits of Action Measuring Success Get Involved Resources Contact Us



Environment Omaha

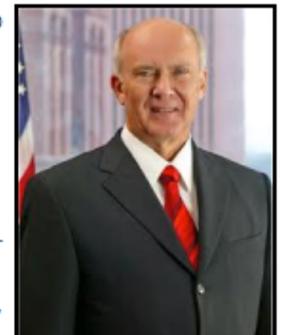
In 2008, the City of Omaha and Omaha by Design launched Environment Omaha, a multi-year initiative that led to the creation of the Environment Element for the City's Master Plan. Adopted by City Council in 2010, the Environment Element is more than a guide for City actions and policies; it is a vision for the long-term environmental health and sustainability for the region. Visit [FCOmaha](#) for more

Welcome from Mayor Suttle

Energy plays an important part in the everyday lives of the citizens of Omaha. We need energy to light, heat, and cool our homes and businesses; manufacture goods and provide services; and fuel the City's transportation system. The community depends on reliable, consistent, and cost-effective sources and uses of energy.

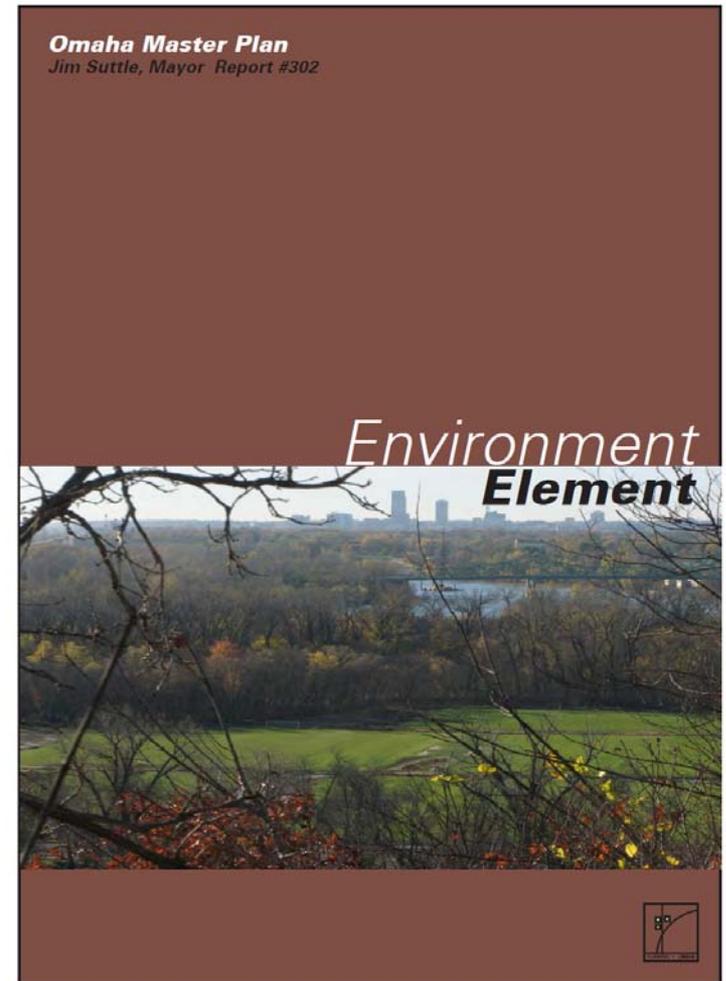
Yet in the face of these basic energy needs, Omaha, the nation, and the world are facing critical energy challenges now and in the coming years, including unpredictability in the supply of fossil fuels from overseas, air pollution, and price swings. As a result, finding ways to conserve energy and use it more efficiently - as well as tap other sources of locally produced and cleaner energy - will be increasingly important in the years to come.

Omaha's citizens made it clear they view energy efficiency and renewable energy quite positively and are willing to invest time and resources toward long-term solutions. Omaha's 2011 Comprehensive Energy Management Plan (CEMP) is the first plan for the City of Omaha to specifically address these energy opportunities and challenges. Funded by the US Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG), the CEMP will help the City of Omaha address the energy needs of its citizens and businesses.



Environment Omaha Implementation Team

- Continuing effort to collaboratively engage on Environment Element Strategies

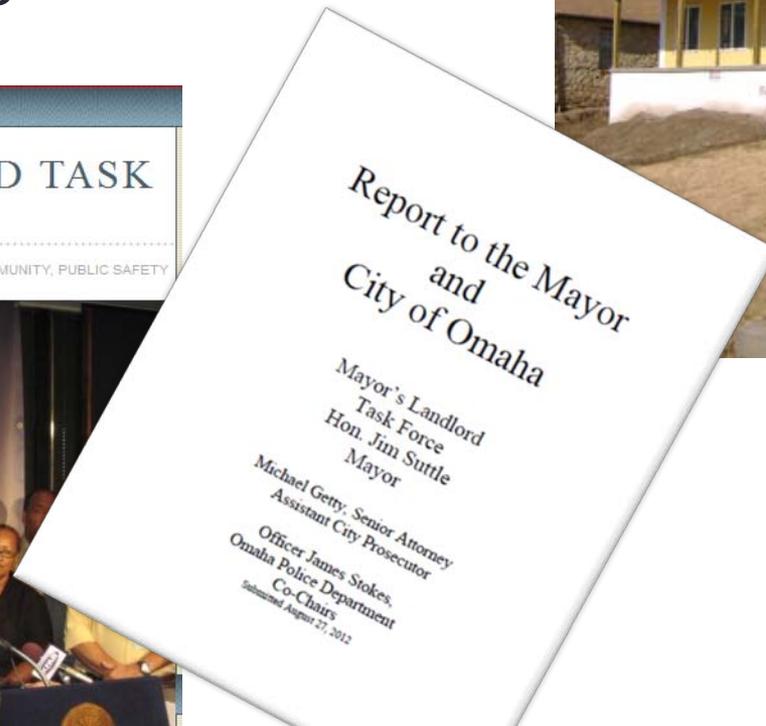
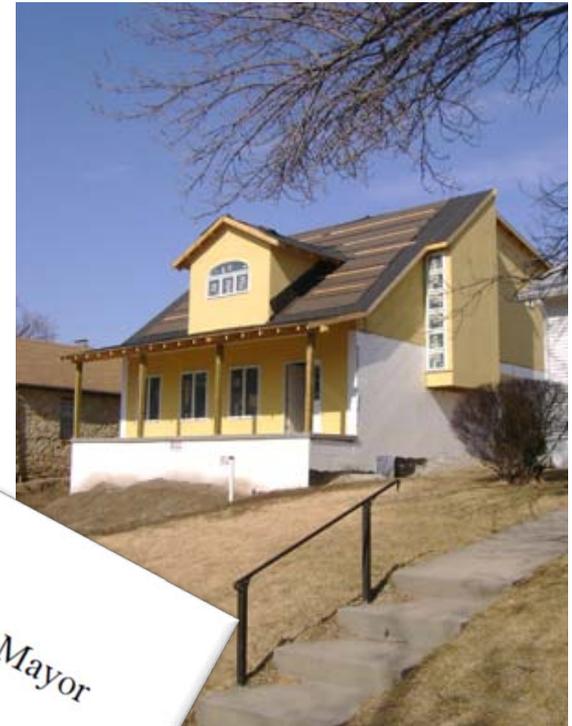


Passed City Council December 17, 2010

www.cityofomaha.org/ecomaha/images/stories/pdfs/EnvironmentElement2010.pdf

Key EOIT Priorities Related to Building Design & Construction

- Evaluate and Update City Codes
- Develop and enforce indoor air quality standards
- Landlord Taskforce





City of Omaha

Building and Zone Code Diagnostic Report

5

August 2011

Prepared for the City of Omaha by
Clarion Associates

In association with:
Brendle Group and
The Development Center
for Appropriate Technology

Code diagnosis addresses the following in each relevant Environment Element section:

- Current regulations relevant to each topic
- Potential barriers in the Code
- Potential incentives for consideration
- Recommendations to fill regulatory gaps

COMMUNITY PROJECTS/PROGRAMS

Implementing the Environment Element in the
Community

Implementation Strategies

Addressing Barriers to Market Development:

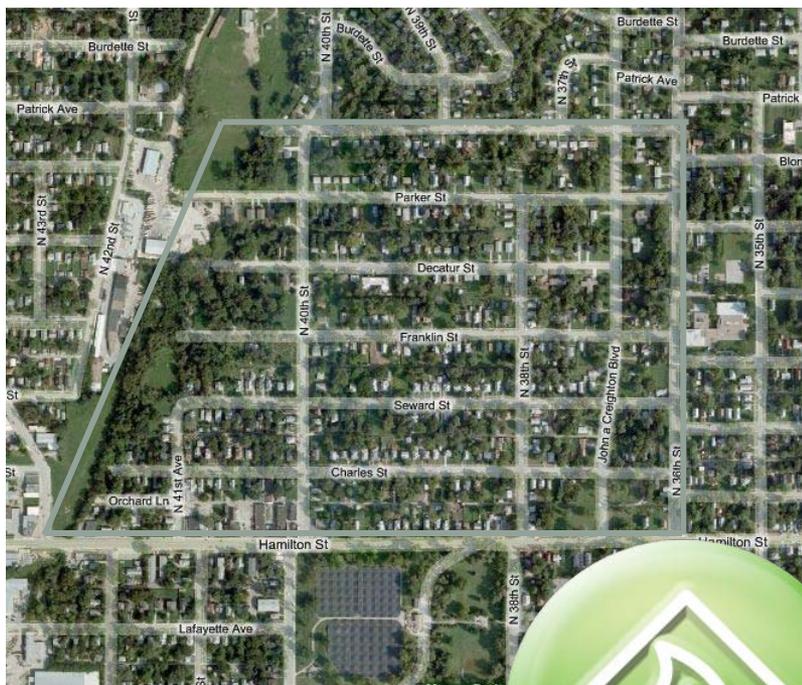
- *Financing Opportunities*
 - *Skilled workforce*
 - *Educate Consumers*
 - *Citizen Engagement*
 - *Technical Hurdles*



Mayor's Neighborhood Grants for Green Improvements



Orchard Hill Energy Efficiency Project



- \$250K grant
- Orchard Hill Neighborhood Retrofit
 - 100+ homes
 - Supplementing other Weatherization funds for low income homeowners
- Metrics
 - 102 homes retrofitted
 - 444 MMBTU saved
 - 309 MTCO₂e avoided
- Status: Completed August 2011



reEnergize
building energy smart communities



www.reEnergizeProgram.org

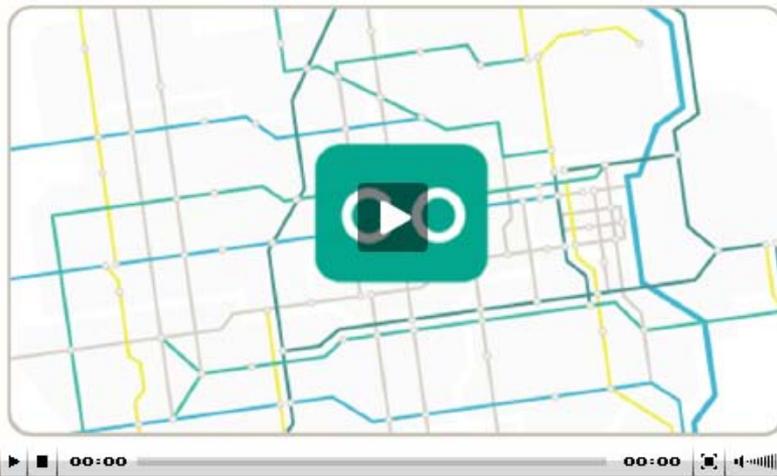
Transportation Master Plan & www.movingomaha.org

[Omaha-Douglas Home](#) [Residents](#) [Visitors](#) [Business](#) [Government](#)

[Home](#) [Priorities](#) [Get Involved](#) [Resources](#)

MOVINGOMAHA

A PLAN FOR TRANSPORTATION



HARNEY STREET BIKE/PEDESTRIAN LANE

One lane of eastbound Harney Street through downtown and midtown will become a dedicated bike/pedestrian lane. First

TIMELINE

MID-1990'S

Omaha City Council adopted the current Transportation Element as part of the city's master plan.

FALL 2010

The update to the Transportation Element was launched. Committees were formed and began meeting to take inventory of the current system and to gather public input on transportation priorities.

WINTER/SPRING 2011

Committees met to develop a

SEPTEMBER 2010

City of Omaha Planning Department hires first Bicycle/Pedestrian Coordinator.

WALKING THE TALK

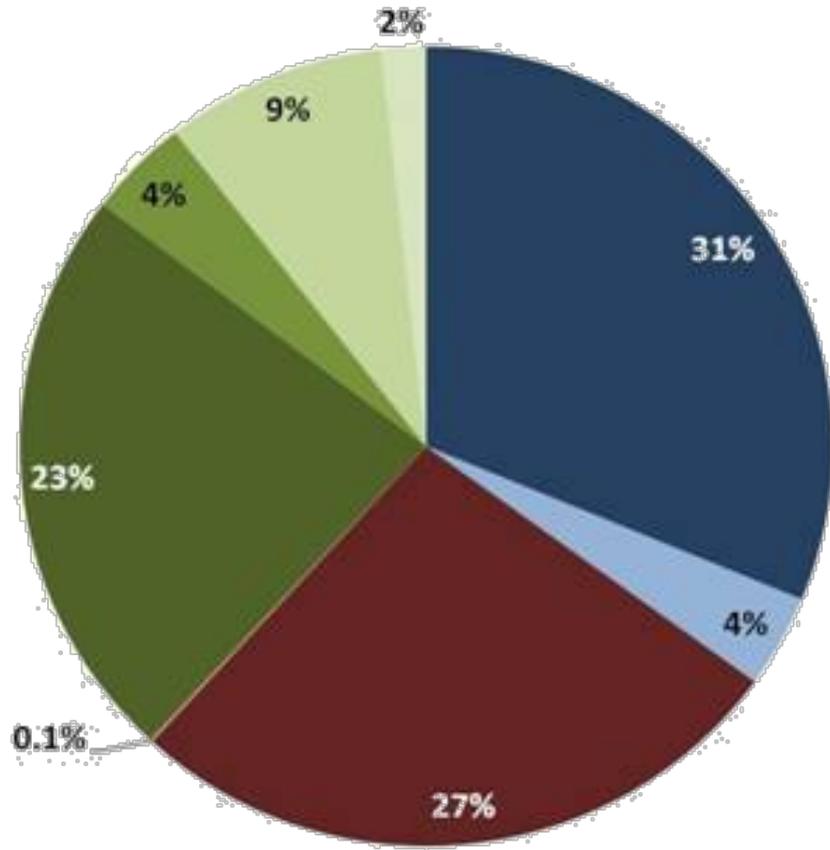
Sustainability Projects at the Municipal Level

CITY OF OMAHA

COMPREHENSIVE ENERGY MANAGEMENT PLAN

Municipal Energy Profile

- Buildings = 35%**
 - Municipal Buildings
 - Civic Center
 - Transportation = 27%**
 - City Fleet Vehicles
 - City Financed Travel
 - Other = 38%**
 - Street Lights
 - Traffic Signals and Signs
 - Wastewater Treatment
 - Rosenblatt Stadium
- Total Consumption = 763,205 MMBtu**



Base data year: 2009

Better Buildings Challenge

- Signed on to by Mayor Suttle in June 2012
- 4 million square feet of city facilities
- 20% reduction in energy intensity by 2020 (~47,300 MMBtu)





Harney Street Parking Garage



- Budget: \$266,500
- 434 LED Lighting + Occupancy Sensors
- Status: Completed
- Annual Savings: 643 MMBTU
- Demonstrated actual energy savings (kwh) of 20% per month over the previous year



Traffic Signal LED Upgrades



- Budget: \$500,000
- Replaced over 70% of the traffic signals in the City
- Annual Savings: 1,014 MMBTU
- Status: Completed Fall 2011
- May lead to more significant effort to modernize traffic systems



City Facility Assessments



01 - A.V. SORENSEN COMMUNITY CENTER / LIBRARY

Site Walk Summary

Site: Concrete on this site is in good shape with only minor cracking. Minor corrosion on metal stairs (north side) and minor crumbling of asphalt parking (west side). A stone retaining wall on west side is falling into minor disrepair.

Envelope: Evidence of past leaks to flat roof. Ballast has been moved out of place to patch leaks, but not replaced. Roof drains are clogged due to debris and vegetation. Some roof repair material has been left on the roof. Exterior brick walls in good shape. Windows and doors in good shape.

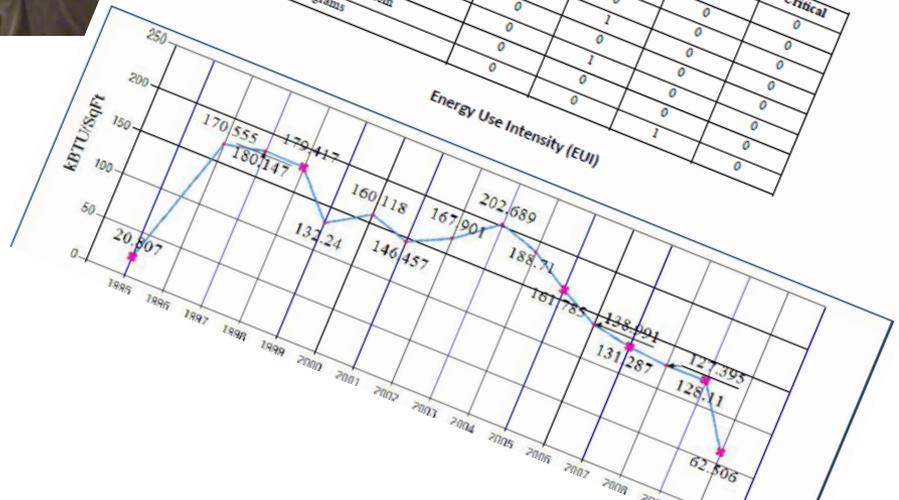
Interior: Evidence of minor moisture damage to masonry stub wall on south side of facility. In front of guest check-in desk for community center, there is a minor trip hazard where the carpet meets the tile flooring.

MEP: Evidence of line set "freezing" on a roof top compressor unit. A guard has fallen out of place on an exhaust hood on the roof. Evidence of water leaking onto the duct work from holes in the roof in the mechanical room. Torn insulation on some duct work and dirty supply diffusers have accumulated dust. Insulation on some water lines is deteriorating, but this is relatively minor damage. Manager reports temperatures vary widely throughout the seasons, but thermostats are controlled from remote location, so she has little control.

Appendix I: 1-page Summaries

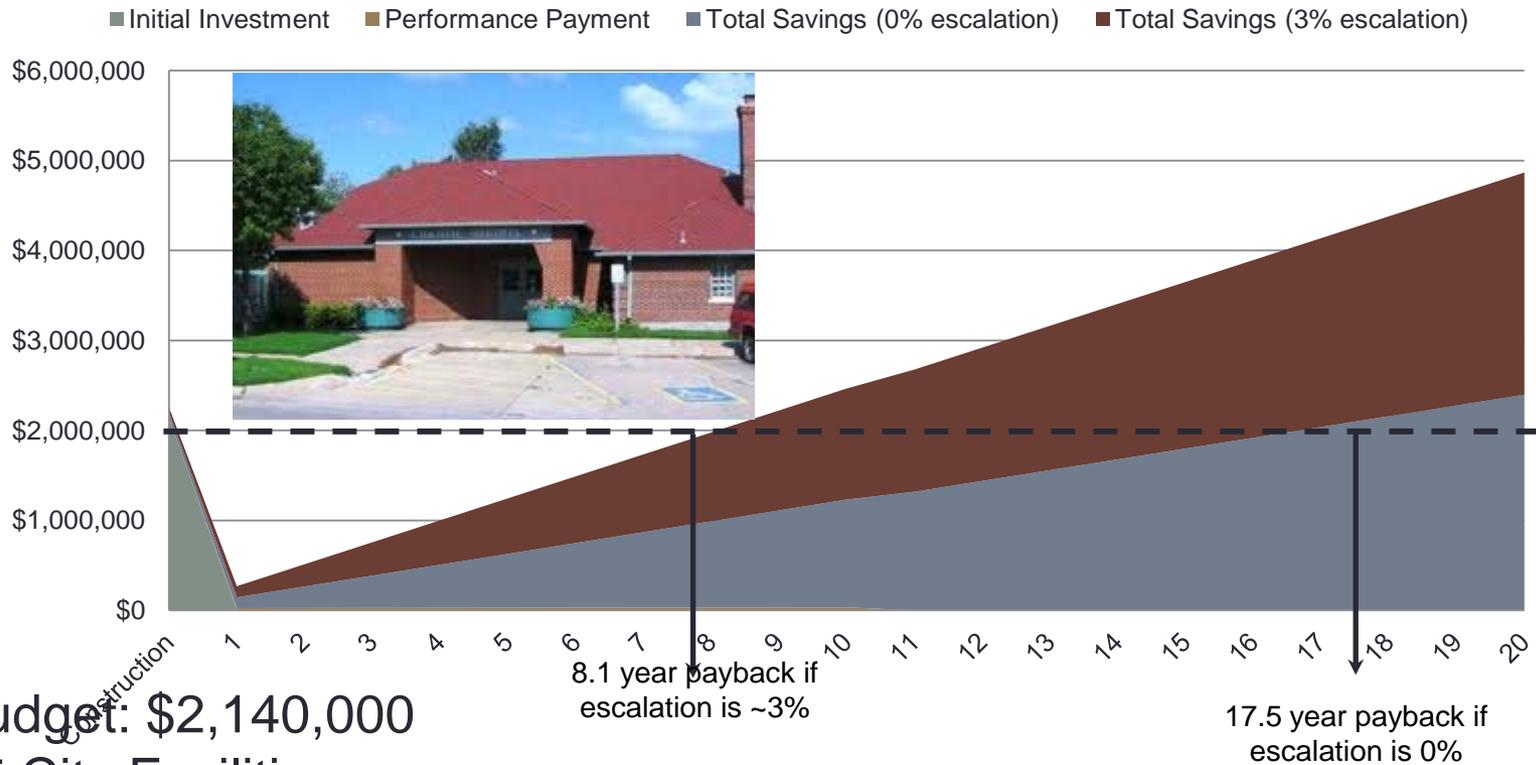
Facility Assessment Summary

Category	Info	Minor	Significant	Critical
Site	5	0	0	0
Envelope	0	0	0	0
Interior	1	3	0	0
Mechanical	0	0	0	0
Plumbing	0	1	0	0
Electrical	0	0	0	0
Specialty System	0	1	0	0
Programs	0	0	1	0



Energy Performance Contract

City of Omaha Energy Performance Contract Investment vs. Savings



- Budget: \$2,140,000
- 25 City Facilities
- Annual Savings: 7,437 MMBTU
- Status: Completed Summer 2012



Congratulations to the students and faculty of Lothrop Science and Technology Magnet Center for receiving the Green Omaha Coalition's first Green School award. [Learn more](#)

www.cityofomaha.org/ECOmaha

search...



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Implementing energy projects today. [Learn more](#)

∨ [Environment Element](#)

∨ [reEnergize Program](#)

∨ [Home Energy Score](#)

∨ [Topics](#)

[Natural Environment](#)

[Urban Form and Transportation](#)

[Building Design and Construction](#)

[Resource Conservation](#)

[Community Health](#)

Urban Form and Transportation

The Urban Form and Transportation section addresses how urban form--the pattern and density of the city's development--relates to conservation of the natural environment, consumption of energy for transportation, and to the ability to have choices of transportation modes.

Click for more information...

[Policies](#)

[Programs](#)

[Projects](#)

A policy is a principle or rule that guides government decision-making in order to achieve a desired outcome. Typically, official policies may be codified by the City Council through amendment to the City charter, code, or comprehensive plan, or directed by the Mayor through executive orders. Policy-related activities may also take the form of public-private partnerships.

Notable policies and policy developments related to sustainability:

- [Environment Element](#)
- [Area of Civic Importance Urban Design](#)

QUESTIONS?

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