

**RESOLUTION NO. 2014- 14**

RESOLUTION ADOPTING 2014 COMPREHENSIVE DEVELOPMENT PLAN  
AMENDMENT BY ADDING AN ENERGY ELEMENT AND OTHER ACTION.

WHEREAS: the City of Gothenburg previously adopted a Comprehensive Development Plan pursuant to Sections 19-901 and 19-903 Neb. Rev. Stat., for the purpose of promoting the health, safety, morals and the general welfare of the community and in order to adopt zoning regulations therefore; and

WHEREAS: the Mayor and City Council of the City of Gothenburg have received a proposed amendment to the Comprehensive Development Plan which proposes to add an Energy Element, in the form attached hereto as Exhibit A along with the recommendation of the Planning and Zoning Commission regarding the proposed Energy Element Amendment and

WHEREAS: the Mayor and City Council of the City of Gothenburg have received public comment at a public hearing on the proposed 2014 Comprehensive Development Plan Energy Element Amendment;

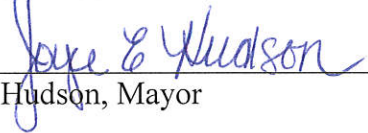
NOW THEREFORE BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF  
THE CITY OF GOTHENBURG, DAWSON COUNTY, NEBRASKA AS FOLLOWS:

Section 1: The City Council hereby finds that the 2014 Comprehensive Development Plan Energy Element Amendment in the form presented to Council, and attached hereto as Exhibit A, complies with the requirements of Section 19-903 Neb. Rev. Stat., and the adoption of the same has been recommended by the Planning and Zoning Commission of the City of Gothenburg, pursuant to law.

Section 2: The City Council hereby adopts the 2014 Comprehensive Development Plan Energy Element Amendment in the form presented to Council, and attached hereto as Exhibit A.

Passed and approved this 21st day of October, 2014.

CITY OF GOTHENBURG,  
DAWSON COUNTY, NEBRASKA

  
\_\_\_\_\_  
Joyce Hudson, Mayor

ATTEST:

  
\_\_\_\_\_  
Connie Dalrymple, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Michael L. Bacon, City Attorney

Exhibit A

**CITY OF GOTHENBURG  
COMPREHENSIVE DEVELOPMENT PLAN  
ENERGY ELEMENT**

1. Energy infrastructure and energy use by sector, including residential, commercial, and industrial sectors:

Energy Infrastructure:

**Electrical Power**

The City of Gothenburg – Public Works Division is responsible for the provision of electrical power for the community of Gothenburg. This power is currently purchased through a wholesale contract with the Nebraska Public Power District.

Power for the community is purchased from a 115 kV substation of NPPD which is fed from both directions. The City also has two 34.5 kV feeds from the substation, of which either feed will provide the necessary capacity to supply the community. The City's distribution voltage is 2,400/4,160 wye, and is fed through 4 - 34.5kV substations throughout the community.

**Natural Gas**

Natural gas is supplied to the community by SourceGas Distribution, LLC. SourceGas is connected to the Tall Grass Energy interstate transmission lines.

The Nebraska Energy Office compiles statistics on energy consumption in the state by sector. Following are statistics from 2013 NEO Annual Report.

**Energy Use**

Residential: In 2011, 46.9 % of the residential sector's energy usage was from natural gas. 40.1% of the energy consumed in the residential sector was electricity, 9.92 % were petroleum products, 3.0 % was renewable energy (wood 2.6%, geothermal 0.3%, and solar 0.1%), and less than 1% was coal. [Source: Nebraska Energy Office, "Nebraska Energy Office 2013 Annual Report," [http://www.neo.ne.gov/annual\\_rept/NEOAnnualReport.pdf](http://www.neo.ne.gov/annual_rept/NEOAnnualReport.pdf)]

Commercial: In 2011, 46.91% of the commercial sector's energy usage was from electricity and 48.84% from natural gas. Petroleum products made up 3.16 % of the energy consumed in the commercial sector (diesel fuel 1.73%, propane 0.84%, motor gasoline 0.59%, 1.67 % was renewable energy (geothermal 1.12%, wood 0.52%, and ethanol 0.03%), and less than 1% was coal. [Source: Nebraska Energy Office, "Nebraska Energy Office 2013 Annual Report," [http://www.neo.ne.gov/annual\\_rept/NEOAnnualReport.pdf](http://www.neo.ne.gov/annual_rept/NEOAnnualReport.pdf)]

Industrial: In 2011, 29.95% of the industrial sector energy usage was from natural gas, 8.22% from diesel fuel, and 12.38% from electricity. Petroleum products other than diesel fuel were asphalt and road oil (1.82%), propane (0.92%), motor gasoline (1.10%), lubricants (0.07%), and other petroleum (0.07%). 6.53% of the energy consumed in the industrial sector was coal and 38.94% was renewable energy (Wood and wood waste 1.43% and Biofuels 37.51%). [Source: Nebraska Energy Office, “Nebraska Energy Office 2013 Annual Report,” [http://www.neo.ne.gov/annual\\_rept/NEOAnnualReport.pdf](http://www.neo.ne.gov/annual_rept/NEOAnnualReport.pdf)]

City of Gothenburg energy use statistics by sector are identified in the flowing table:

	2011	2012	2013	% change
<b>Residential (kWh)</b>	21,141,510	20,123,348	21,634,593	2.33%
Per customer usage	14,294	13,652	14,588	2.06%
Residential % of total	36%	35%	36%	
<b>Commercial (kWh)</b>	13,769,208	13,152,123	13,681,272	-0.64%
Per customer usage	39,006	37,577	39,089	0.21%
Commercial % of total	24%	23%	23%	
<b>Industrial (kWh)</b>	21,978,740	22,562,050	23,601,200	7.38%
Per customer usage	1,465,249	1,504,137	1,573,413	7.38%
Industrial % of total	38%	40%	39%	
<b>Municipal (kWh)</b>	1,109,232	1,341,751	1,264,524	13.99%
Per customer usage	1,109,232	1,341,751	1,264,524	13.99%
Municipal % of total	2%	2%	2%	
<b>Total Usage</b>	<b>57,998,690</b>	<b>57,179,272</b>	<b>60,181,589</b>	<b>3.76%</b>
	100%	100%	100%	
<b>Customer by Class</b>				
Residential	1,479	1,474	1,483	0.27%
Commercial	353	350	350	-0.85%
Industrial	15	15	15	0.00%
<b>Total</b>	<b>1,847</b>	<b>1,839</b>	<b>1,848</b>	<b>0.05%</b>

Source: City of Gothenburg



## 2. Utilization of renewable energy sources:

The Nebraska Energy Office reports that in 2007, three percent of Nebraska's energy consumption was from renewable energy sources. The sources of energy for Nebraska in 2007 were petroleum (33%), coal (31%), natural gas (21%), nuclear power (17%) and renewable energy (3%). The renewable sources were biomass (1.48%), conventional hydroelectric power (0.496%), ethanol (0.379%), wind (0.309%), geothermal energy (0.115%), and solar (0.005%). [Source Nebraska Energy Office, "Nebraska's Renewable Energy Consumption," [www.neo.ne.gov/statshhtml/92.htm](http://www.neo.ne.gov/statshhtml/92.htm)]

The nation as a whole used a higher percentage of renewable energy than Nebraska. In 2008, 7% of the energy consumption in the United States was from renewable sources. That year the sources of energy for the nation were petroleum (37%), natural gas (24%), coal (23%), nuclear electric power (8%), and renewable energy (7%). The sources of renewable energy were solar (0.07%), geothermal (0.35%), wind (0.49%), hydropower (2.38%), and biomass (3.71%). [Source: U.S. Energy Information Administration, "Renewable Energy Trends in Consumption and Electricity," [www.eia.doe.gov/cneaf/solar.renewables/page/trends/rentrends.html](http://www.eia.doe.gov/cneaf/solar.renewables/page/trends/rentrends.html)]

The City of Gothenburg is a wholesale customer of the Nebraska Public Power District. By the end of 2014, approximately 9.5% of the energy NPPD provides will be from a renewable energy source; which includes hydro and wind.

## 3. Energy conservation measures that benefit the community.

a. Energy Codes – Under §§81-1608 to 81-1616, the State of Nebraska has adopted the International Energy Conservation Code as the Nebraska Energy Code. Any city may adopt and enforce the Nebraska Energy Code or an equivalent energy code. If a city does not adopt an energy code, the Nebraska Energy Office will enforce the Nebraska Energy Code in the jurisdiction.

The purpose of the Code, under §81-1608, is to insure that newly built houses or buildings meet uniform energy efficiency standards. The statute finds:

that there is a need to adopt the . . . International Energy Conservation Code in order (1) to ensure that a minimum energy efficiency standard is maintained throughout the state, (2) to harmonize and clarify energy building code statutory references, (3) to ensure compliance with the National Energy Policy Act of 1992, (4) to increase energy savings for all Nebraska consumers, especially low-income Nebraskans, (5) to reduce the cost of state programs that provide assistance to low-income Nebraskans, (6) to reduce the amount of money expended to import energy, (7) to reduce the growth of energy consumption, (8) to lessen the need for new power plants, and (9) to provide training for local code officials and residential and commercial builders who implement the . . . International Energy Conservation Code.

The Code applies to all new buildings, or renovations of or additions to any existing buildings. Only those renovations that will cost more than 50 percent of the replacement cost of the building must comply with the Code.

The City of Gothenburg adopted the Nebraska Energy Code by Ordinance 828 on March 4, 2008.

b. Energy Efficiency Programs – The City will work with utility companies that supply energy to the residents and businesses of the City to promote and implement energy efficiency programs that can be utilized by these customers to improve conservation and utilization of electricity, natural gas, and other energy sources.

Residents and businesses are encouraged to work with the utility companies and take advantage of the companies' energy efficiency programs to improve conservation and utilization of electricity, natural gas, and other energy sources.

c. “Energy Saving Tips” – The Nebraska Energy Office has listed ways to save money on energy bills for the home, farm, business, or vehicle. Options for energy savings are listed on the Office's web site at <http://www.neo.ne.gov/tips/tips.htm>. The City and residents and businesses in the City are encouraged to take advantage of the conservation measures.

d. “Other Conservation Measures” – The City has taken on other conservation measures which include:

- i: In 2009, the City applied for and received a grant through the Nebraska Energy Office for energy conservation through the replacement of HP sodium lighting to LED lighting. Through the replacement of these lights, the city has had a reduction of energy of 58%, with the new LED lighting resulting in an annual energy consumption savings of 292,320 kWh. According to the United States Environmental Protection Agency (EPA), the Greenhouse Gas Equivalencies Calculator shows a yearly savings of 210 Metric Tons of Carbon Dioxide savings when using the projected savings of 292,320 kWh.
- ii: The City has upgraded all interior lighting in City Hall to LED lighting.
- iii: The Gothenburg Public Library is changing out lighting to LED as the current fixtures need replaced.
- iv: Both City Hall and the Gothenburg Public Library use water source electric cooling and heating systems for maximum efficiency.
- v: The City is a Tree City USA city, and have been providing efficiency/conservation options by planting trees and providing programs such as the Commemorative Tree Program and Tree Rebate program to encourage all citizens to plant trees.
- vi: The City of Gothenburg Public Works Department will implement a Net Metering Code to allow local participation in which the electrical department will buy back excess energy created by renewable energy efforts of its citizens.