

**City of Seward, NE**  
**Tuesday, February 17, 2015**  
**Regular Session**

**Item G5**

**PUBLIC HEARING - 7:00 P.M. - PRESENTATION AND  
ACTION ON ENERGY ELEMENT TO COMPREHENSIVE  
PLAN - John Hughes**

*Consideration of an Ordinance Amending the Comprehensive Plan with the Inclusion of the Energy Element*

**Administrative Report:** Following review and discussion, a motion to adopt the Ordinance would be in order.

**Staff Contact:**

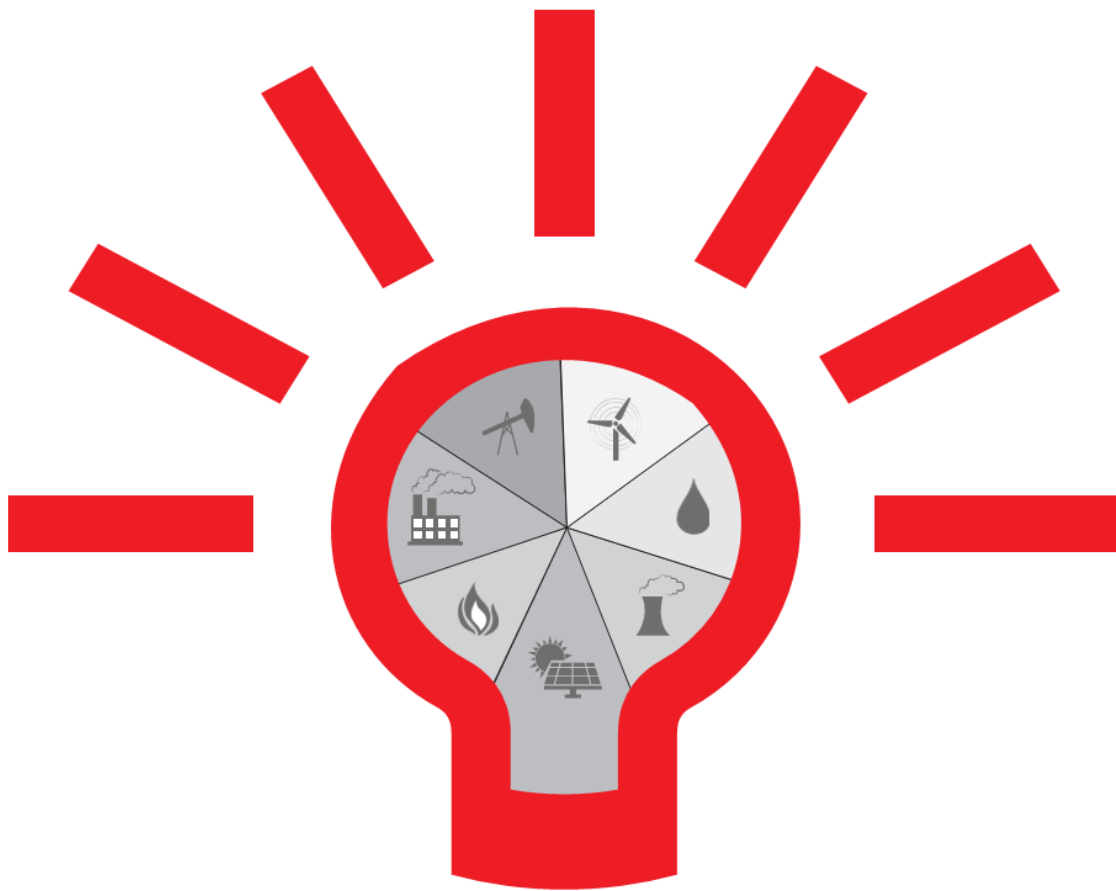
## **NOTICE OF PUBLIC HEARING**

Public notice is hereby given by Planning Commission of the City of Seward, Nebraska, that a public hearing will be held at 7:30 p.m. on Monday February 9, 2015, and the City Council of the City of Seward, Seward County, Nebraska on Tuesday February 17, 2015 at 7:00 pm in the Council Chambers at the Municipal Building, 142 North 7<sup>th</sup> Street, Seward, Nebraska. Said Public Hearings will be on a discussion of a new Energy Element addition to the City's Comprehensive Plan.

All interested parties shall be afforded at such public hearing a reasonable opportunity to express their views regarding the proposed adoption.

Ed Gonzalez  
Building/Zoning Director

Published: 1-28-2015



## Energy Element

Seward, Nebraska

Adopted \_\_\_\_\_  
Ordinance No. \_\_\_\_\_



## Contents

Introduction .....	2
Acknowledgements.....	2
Nebraska Energy Policy Overview.....	2
Energy Infrastructure .....	4
Energy Use .....	5
Nebraska Energy Statistics.....	6
Opportunities for Energy Conservation .....	9
Opportunities for Renewable Energy .....	10
Education .....	14
Funding .....	15
Current Energy Efforts and Achievements.....	15
Goals and Strategies .....	16
Figure 1 Energy Sources in NPPD’s Generation Mix .....	5
Figure 2 Net Energy Consumption by Fuel Type in Nebraska.....	7
Figure 3 Total Energy Consumption by Fuel Type in Nebraska 1960-2011 .....	8
Figure 4 Nebraska Energy Consumption and Costs by Sector 2012 .....	8
Figure 5 Heat Loss in Houses .....	9
Figure 6 Wind Capacity Additions Per Year .....	10
Figure 7 Wind Power Density.....	11
Figure 8 Biomass Resources – Crop Residues .....	12
Figure 9 Global Solar Radiation at Latitude Tilt - Annual .....	13
Table 1 Seward Electrical Consumption in kWh by Year and Sector .....	6

## Introduction

Energy plays a crucial role in nearly every aspect of our lives. It is used to grow our food, to move us from place to place, to light our homes, and to make the products we buy. The vast majority of our energy is currently supplied by fossil fuels, which are nonrenewable resources. Federal regulations are tightening emission rules for power plants, thus increasing the cost of using fossil fuels. By planning for energy and its use, Seward can save money, have a more resilient economy, conserve natural resources, and be better prepared for the future.

## Acknowledgements

City of Seward

Nebraska Energy Office

National Renewable Energy Laboratories (NREL)

U.S. Department of Energy (DOE)

Eastern Interconnection States' Planning Council  
(EISPC)

AWS Truepower

American Wind Energy Association

The U.S. Environmental Protection Agency

Nebraska Public Power District (NPPD)

U.S. Energy Information Administration (EIA)

International Renewable Energy Agency

## Nebraska Energy Policy Overview

### Nebraska Legislation LB997

In 2010, Nebraska Legislators passed LB 997 requiring all municipalities and counties, with the exception of villages, to adopt an energy element into their comprehensive plan. Energy elements are required to have three components:

1. Energy infrastructure and energy use by sector
2. Utilization of renewable energy sources
3. Energy conservation measures that benefit the community

The following energy element is included within Seward's Comprehensive Plan in order to fulfill the requirement of LB 997.

### Nebraska Energy Plan

The 2011 Nebraska Energy Plan outlines 14 strategies for the state to consider in meeting the following three objectives:

1. Ensure access to affordable and reliable energy for Nebraskans to use responsibly
2. Advance implementation and innovation of renewable energy in the state
3. Reduce petroleum consumption in Nebraska's transportation sector

The 14 strategies include:

- Continue support of Nebraska's unique public power system
- Increase opportunities for demand-side energy management and energy efficiencies
- Maximize the investment in Nebraska's coal plants
- Expand Nebraska's nuclear power generation capacity

- Increase opportunities for industrial and municipal waste-to-energy projects
- Optimize the use of Nebraska's water resources for hydroelectric power generation
- Improve municipal water and wastewater management strategies and water quality
- Continue building Nebraska's wind energy through public-private partnerships
- Increase opportunities for methane recovery from agricultural and community biomass resources
- Increase opportunities for woody biomass in Nebraska
- Support distributed generation of renewable technologies
- Increase ethanol production, blended and delivered across Nebraska and to markets outside the state
- Increase development and use of other alternative fuels
- Diversify and expand opportunities for renewable diesel in Nebraska

### **Nebraska Energy Code**

Under §§81-1608 to 81-1616, the State of Nebraska has adopted the International Energy Conservation Code as the Nebraska Energy Code. Any community or county may adopt and enforce the Nebraska Energy Code or an equivalent energy code. If a community or county does not adopt an energy code, the Nebraska Energy Office will enforce the Nebraska Energy Code in the jurisdiction. Seward is in the process of adopting the 2012 Energy Conservation Code.

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 Energy Code applies to all new buildings, as well as 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. There are exceptions to the Nebraska Energy Code including: buildings that are neither heated nor cooled, buildings registered as a historic place, or buildings with very low average energy use. Visit the Nebraska Energy Office website to see all the rules, regulations, and exceptions regarding the Energy Code.

### **Nebraska Legislation LB436 - Net Metering**

The Nebraska Legislature also adopted LB436 which allows for net metering. Net metering is the process in which a citizen has the opportunity to generate their own energy and send excess energy onto the grid. The utility company purchases the excess energy from the customer through credits. Net metering was found to be in the public interest because it encourages customer-owned renewable energy sources. Net metering can stimulate the economic growth, encourage diversification of the energy resources used, and maintain the low-cost, reliable electric service for the State of Nebraska.

According to the Municipal Code, Seward allows net metering for small production facilities with capacity of one hundred kilowatts (kW) or less. Facilities must meet the generation policies and procedures as outlined by the City.

### **Solar and Wind Easements and Local Option Rights Laws**

Nebraska's easement provisions allow property owners to create binding solar and wind easements in order to protect and maintain proper access to sunlight and wind. Counties and municipalities are allowed to develop zoning regulations, ordinances, or development plans that protect access to solar and wind energy resources. Local governing bodies may also grant zoning variances to solar and wind energy systems that would be restricted under existing regulations, so long as the variance is not substantially detrimental to the public good.

For summaries of additional programs, incentives and policies in Nebraska visit the Database of State Incentives for Renewables & Efficiency (DSIRE) website:

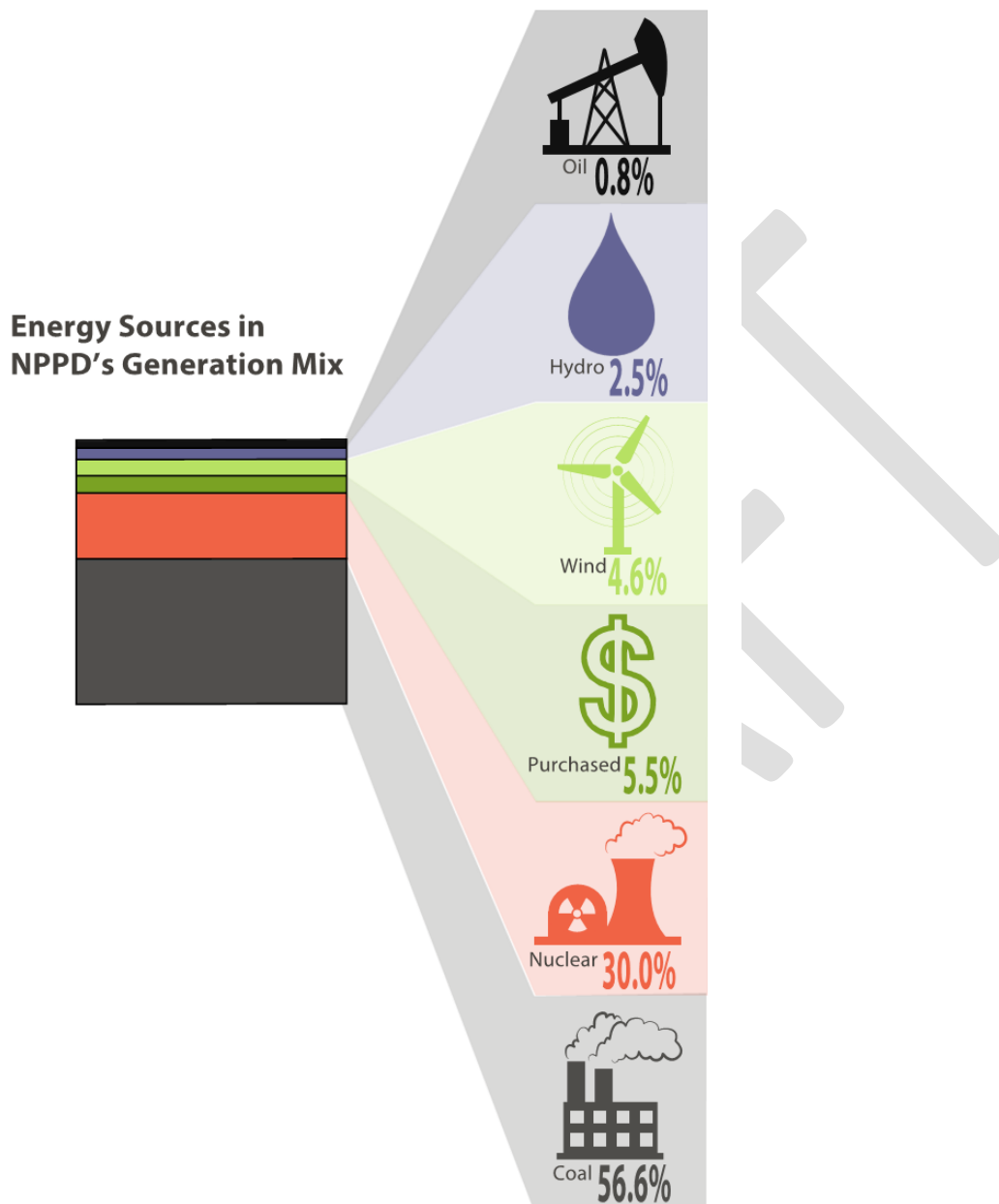
<http://www.dsireusa.org/incentives/index.cfm?re=0&ee=0&spv=0&st=0&srp=1&state=NE>

## **Energy Infrastructure**

The City owns and operates the electrical distribution system within Seward. As of 2014, the City serves 2,725 residential customers and 536 commercial and industrial customers with a peak load of 23,000 kW.

Nebraska Public Power District (NPPD) is the wholesale power provider for the city. NPPD is the state's largest electric utility and delivers power to approximately a million Nebraskans and has the capacity to meet the needs of new loads. As seen in Figure 1, NPPD has a diverse generation mix including: coal, nuclear, hydro, gas and oil, and wind. As NPPD continues to purchase the output of wind farms across the state, wind will likely be a much larger percentage of their generation mix.

Figure 1:



## Energy Use

Table 1 shows Seward's electricity consumption in kWh by sector. The residential, rural, and large commercial sectors used more electricity in 2013 than in 2012. Total consumption increased by 1.12%. The trend of overall increasing energy consumption in Seward is consistent with the statewide trend shown in Figure 4. If Seward continues to increase consumption, the electric department will likely have to invest in infrastructure/capacity upgrades.

Table 1: Seward Electrical Consumption in kWh by Year and Sector

Sector	2012	2013	% Change
Residential	27,103,134	28,506,798	5.18%
Rural	701,142	751,166	7.13%
Large Commercial	22,473,917	22,959,816	2.16%
Small Commercial	11,586,000	11,575,424	-0.09%
Industrial	31,098,526	30,207,752	-2.86%
Total	92,962,719	94,000,956	1.12%

Data from the city of Seward

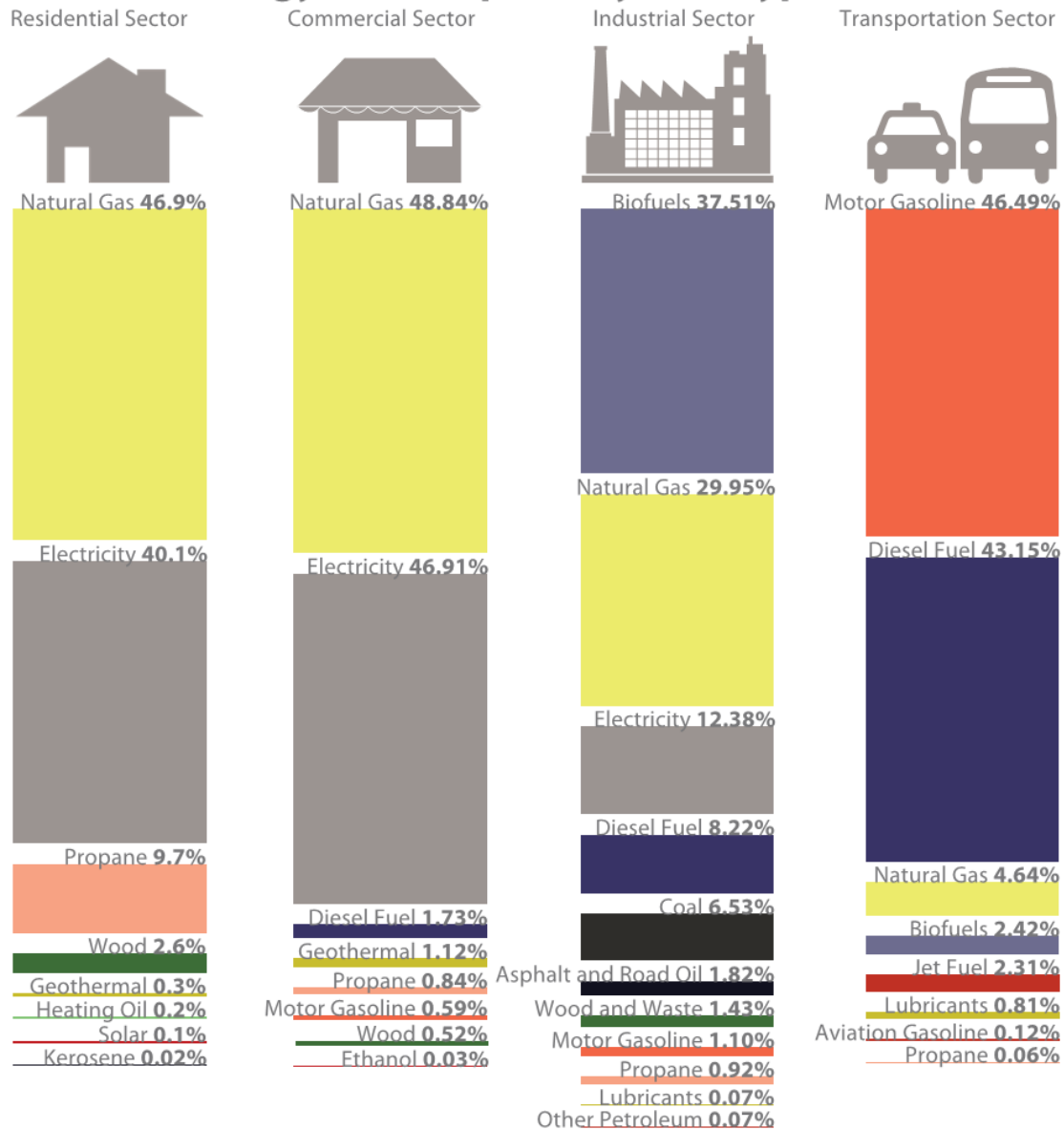
Many factors affect electricity consumption including: use patterns, weather, and economics. For example, an unusually hot summer will cause an increase in electricity consumption for air conditioning. Although things such as the weather are uncontrollable, there are certain things Seward can control, such as use patterns and the efficiency of buildings. It is in the residents' and the City's interest to increase energy efficiency so that less money will be spent on utility bills and infrastructure upgrades and more money into the local economy. Resources to improve energy efficiency are located in the education and funding sections below.

## Nebraska Energy Statistics

The following Nebraska energy data is used as consumption data by fuel type was not available for Seward as well as to provide context to the Seward consumption data. Figure 3 shows the net energy consumption by fuel type in the residential, commercial, industrial, and transportation sectors. A majority of the energy spent in the residential and commercial sectors in the form of natural gas and electricity is for heating, cooling, and lighting buildings. The industrial sector, which includes agriculture, relies on biofuels for 37.51% of its energy consumption.

Figure 2:

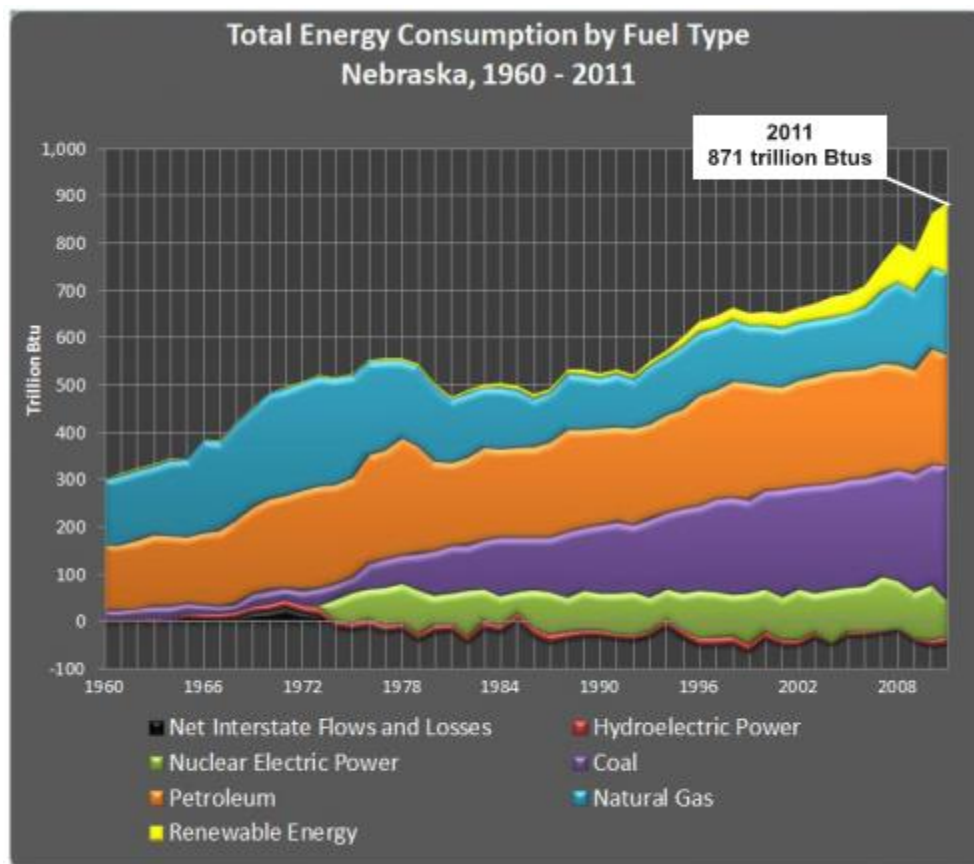
## 2011 Net Energy Consumption by Fuel Type in Nebraska



Data for Figure 2 is from the Nebraska Energy Office.

As shown in Figure 3, Nebraskans rely on fossil fuels for an overwhelming majority of their energy needs. Energy consumption continues to steadily increase from year to year with Nebraskan's consuming 871 trillion BTUs in 2011. Natural gas and renewable energy consumption are expected to increase in the future as concerns for emissions increase and as these sources become more economical.

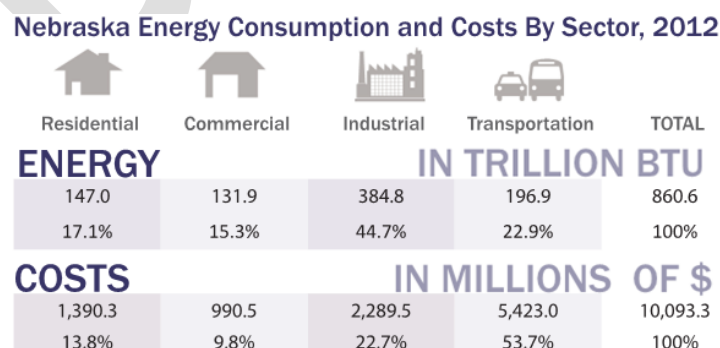
Figure 3:



Sources: State Energy Data Report. Energy Information Administration, Washington, DC.  
Nebraska Energy Office, Lincoln, NE.

Figure 4 shows how much energy Nebraska consumed in 2012 and how much money Nebraska spent on energy in 2012. Total energy consumption decreased by 10 trillion BTUs from 2011 to 2012, or 1%. Even though transportation consumption was just under 23% of the total in 2012, Nebraska spent more money on transportation than residential, commercial and industrial energy uses combined.

Figure 4:



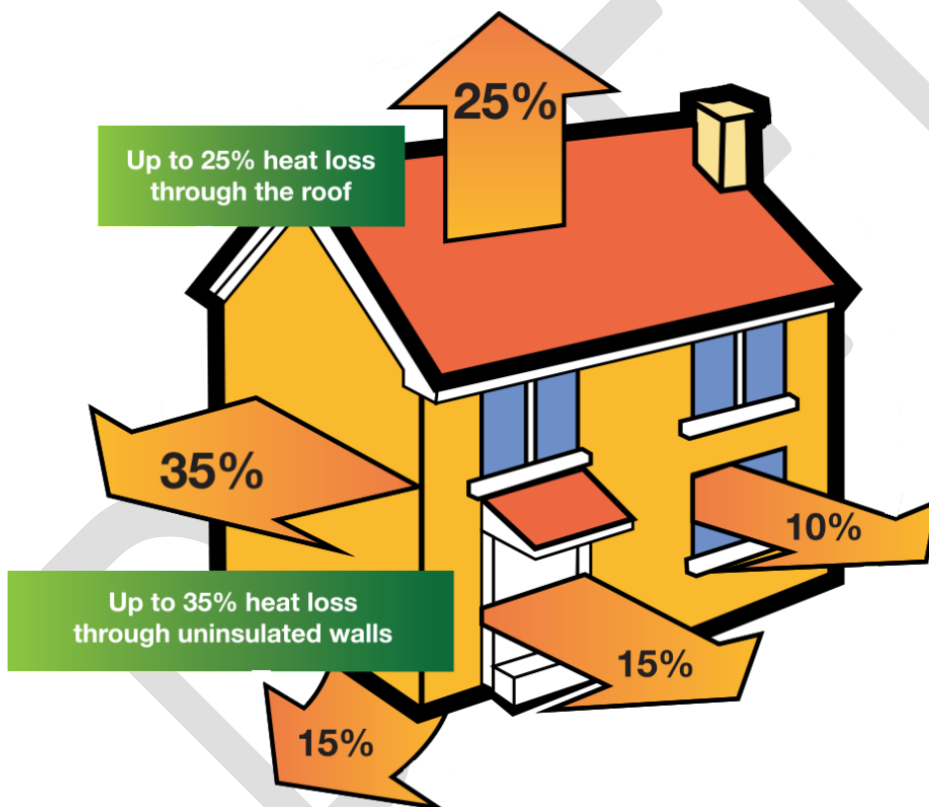
## Opportunities for Energy Conservation

### Buildings

According to the 2012 American Community Survey (ACS), 48% of the houses in Seward were built before 1970; and 23.6% before 1940. These homes are an opportunity for Seward to significantly reduce its energy use. In older homes, improvements in insulation, windows, appliances and lighting can cause them to be significantly more energy efficient and save the homeowner in energy costs. Figure 5 shows the common places houses lose heat. Up to 60% of heat loss is through the roof and uninsulated walls.

There are a number of programs and incentives available for homeowners and business that want to improve their energy efficiency. These programs and incentives are described in the education and funding sections below.

Figure 5: Average Home Heat Loss



Graphic from: [www.eco-uk.co.uk](http://www.eco-uk.co.uk)

### Transportation

The average commute to work for the citizens of Seward is 17.7 minutes (ACS 2012). Over 77% of residents drive alone (ACS 2012). The citizens of Seward are spending a lot of time, money, and energy getting to work. Strategies to reduce energy use for transportation include: investing in trails, sidewalks, and multi-modal transportation infrastructure, and encouraging carpooling, economic development to increase local jobs, compact development and mixed use development.

## Landscaping

A well-designed landscape not only improves the aesthetics of a home or business, it can reduce water use and lower energy bills. According to the Nebraska Energy Office, a well-designed landscape saves enough energy to pay for itself in less than eight years. For example, when planted in the right spot, trees can provide shade from the sun in the summer and block the cold wind in the winter.

## Recycling and Composting

Recycling and composting preserves energy by reducing the energy needed to extract raw materials. For example, using recycled aluminum scrap to make aluminum cans uses 95% less energy than making aluminum cans from raw materials (EIA). Recycling and composting also reduce the amount of solid waste dumped in the landfill, which allows landfills to stay open and functioning for more years.

Currently, the city of Seward owns and operates a recycling center as well as a composting pile. Located at 340 South 7<sup>th</sup> Street, the recycling center is open three days a week and is run by one part-time employee along with volunteers. The city of Seward website has information related to operating hours and materials accepted. The city of Seward should continue to support recycling and composting efforts.

## Opportunities for Renewable Energy

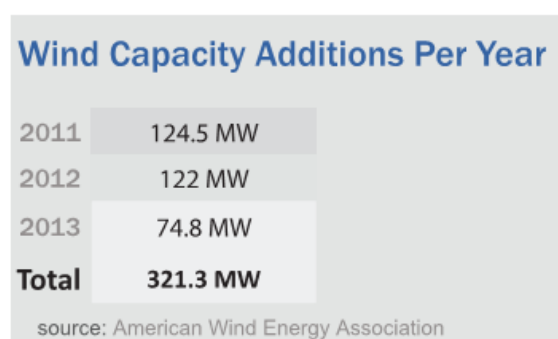
### Renewable Energy Sources

Nebraska is the only state in the U.S. that is 100% public power. Since they are not seeking profits, public power districts have been able to maintain some of the lowest electricity prices in the nation. The low cost of energy is one of the reasons that Nebraska has not fully taken advantage of its renewable energy potential. Unlike places such as California, where electricity prices are high, renewable energy systems have historically not been economical for Nebraska. Below is a summary of potential renewable energy options for Seward.

### Wind

According to the American Wind Energy Association, Nebraska has one of the best wind resources in the United States; 92% of Nebraska has the adequate wind speeds for a utility scale wind farm. Nebraska ranks 3<sup>rd</sup> in the U.S. in gigawatt hour (GWh) wind generation potential, but has been slow in utilizing this resource compared to other states. Nebraska currently ranks 20<sup>th</sup> in total MW installed with 735 MW. According to the National Renewable Energy Laboratory, Nebraska's wind potential at 80 meters hub height is 917,999 MW. Wind Power is capable of meeting more than 118 times the state's current electricity needs. As shown in Figure 6, Nebraska added a significant amount of wind capacity between 2011 and 2013, and will likely continue to increase wind capacity in the future.

Figure 6:



As seen in Figure 7, Seward and the rest of Seward County have excellent wind resources with wind power densities up to 600 watts per square meter. Electricity produced through wind power will be most cost effective on the utility/commercial scale. Small scale wind systems for homes and businesses may not be as cost effective, but they should be encouraged in appropriate settings. Small scale wind systems can be utilized to lower the owner's monthly utility bill in areas with net metering.

Figure 7:

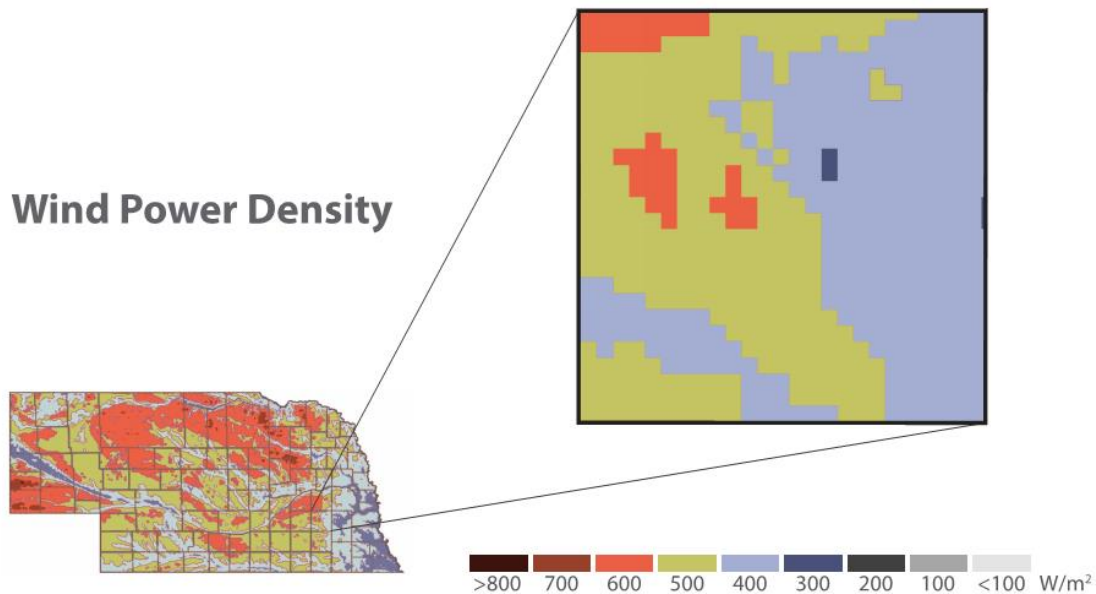


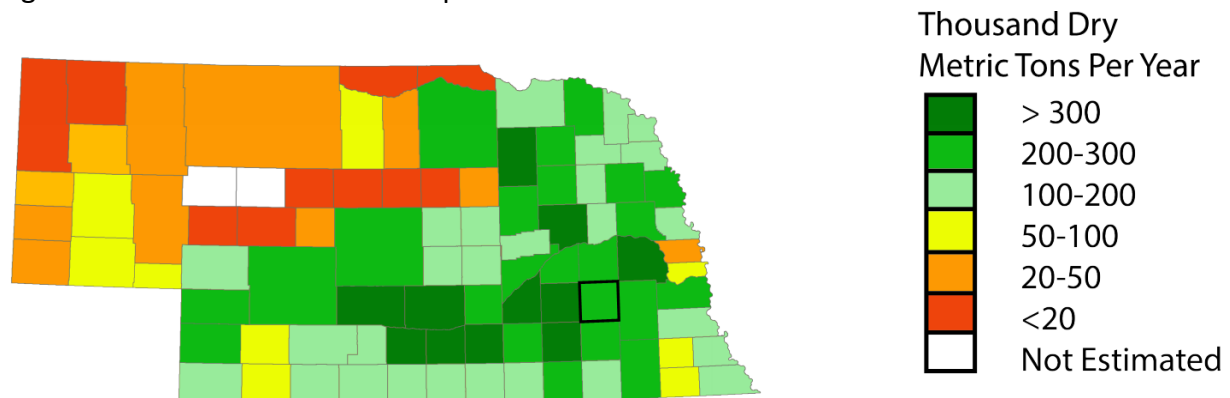
Figure 7 represents the gross estimated annual average wind power density for Nebraska and Seward County. This data indicates how much energy is available for conversion by a wind turbine at a particular location. This map was created with data from EISPC and AWS Truepower.

## Biomass

Biomass (biodiesel, ethanol, landfill gas, methane, wood and wood waste) accounted for 81.7% of all renewable energy generated in Nebraska in 2011. As seen in Figure 8, Seward County has great biomass resources with 200-300 thousand metric tons of crop residues per year. Below are some biomass applications that could be evaluated for Seward.

Direct-fired System- Most biomass plants that generate electricity use direct-fired systems. Simply, these plants burn biomass feedstock directly to produce steam. This steam turns a turbine, which turns a generator that converts the power into electricity. The feedstock for direct systems can be a number of things: wood and wood waste, agricultural residues, municipal solid waste, or industrial waste. Wood fueled systems currently provide energy for a number of manufacturing facilities, two colleges, and other buildings across Nebraska. Wood fueled energy systems have the potential to create significant energy savings versus traditional fossil fuels. The Nebraska Forest Service currently has a grant program to help with the up-front costs of converting to a wood energy system.

Figure 8: Biomass Resources – Crop Residues



Data for Figure 8 is from NREL.

**Biodiesel-** The two Nebraska commercial scale plants located in Arlington and Scribner have an estimated production capacity of 5.4 million gallons per year, but both closed in the late 2000's due to the price of soybeans used for feedstock.

**Ethanol-** Ethanol produced from corn and grain sorghum is a growing energy resource in Nebraska. According to the Renewable Fuels Association, Nebraska has the second largest ethanol production capacity in the nation and the second largest current operating production in the nation. Approximately 14% of the nation's ethanol capacity is in Nebraska's 27 ethanol plants. The closest ethanol plant is the 55 million gallon per year facility in York.

Ninety-one percent of Nebraska's ethanol production goes to U.S. domestic markets, 5% is exported to other countries, and 4% is used by Nebraskans. The state's Ethanol Board estimates that 40% of Nebraska's corn crop and 75% of the state's grain sorghum crop are used in the production of ethanol.

Ethanol consumption is mainly in the form of blended gasoline. Ethanol production and consumption is expected to continue to increase as national legislation continues to affect state policies. The Renewable Fuel Standard, established in 2005 as a part of the Energy Policy Act, requires a minimum of 36 billion gallons of renewable fuel to be used in the nation's gasoline supply by 2022. In 2013, 87 octane fuel without ethanol began to be phased out and replaced with an ethanol-blended 87 octane gas. Nearly all fuel stations in Nebraska and Iowa have phased out 87 octane fuel without ethanol as of 2014.

**Biogas-** Biogas is a product of the decomposition of manure, via anaerobic digestion, and is typically made of about 60% methane, and 40% carbon dioxide. Biogas can be used to generate electricity, as a boiler fuel for space or water heating, upgraded to natural gas pipeline quality, or other uses. After the production of biogas, the remaining effluent is low in odor and rich in nutrients. The byproducts of biogas production can be used as fertilizer, livestock bedding, soil amendments or biodegradable planting pots. For additional information about biogas visit: <http://www.epa.gov/agstar/anaerobic/>.

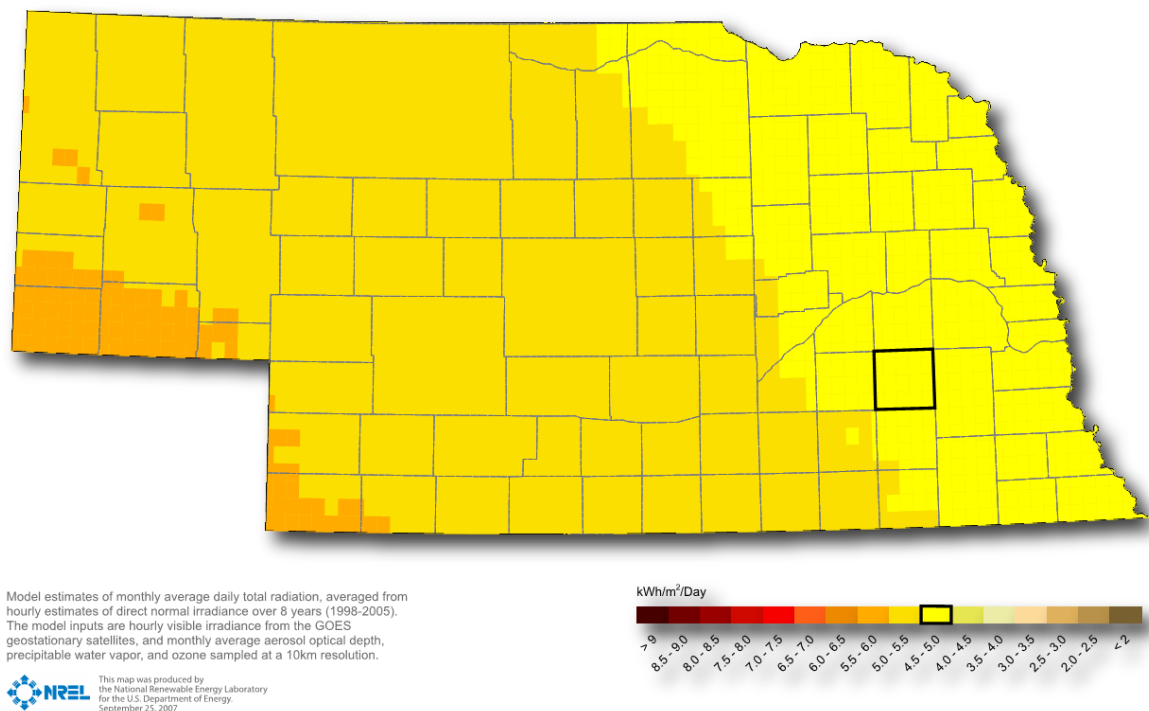
## Solar Power

According to the National Renewable Energy Laboratory, Nebraska is ranked 13<sup>th</sup> in solar energy potential. As seen in Figure 9, Seward and the rest of Seward County have an average solar radiation of 4.5-5.0 kilowatt hours per square meter per day. Currently, solar technologies are marginally used in Nebraska because it has historically been difficult for solar technologies to compete with the state's low electric rates.

According to the International Renewable Energy Agency, the cost of solar photovoltaic (PV) panels decreased 80% from 2009 to 2013. As the cost of solar panels continues to decrease, solar can be utilized at an individual home or business scale to help supplement electrical needs. Many utility companies throughout Nebraska have incentives to help with the cost of solar, but additional steps could be taken to increase the amount of solar energy generated in Seward.

Figure 9:

### Global Solar Radiation at Latitude Tilt - Annual



Passive solar- Passive solar design takes advantage of a building's site, climate, and materials to minimize energy use. A well-designed passive solar home first reduces energy use for heating and cooling through energy-efficiency strategies and then meets the reduced need in whole or part with solar energy. In simple terms, a passive solar home collects heat as the sun shines through south-facing windows and retains it in materials that store heat, known as thermal mass.

## Geothermal

The type of geothermal application that is most practical and economical for the residents of Seward is the use of geothermal heat pumps. Closed loop systems move fluids through continuous pipeline loops that are buried underground at depths where the temperature does not fluctuate much. Heat picked up by the circulating fluid is delivered to a building through a traditional duct system. Geothermal heat pumps discharge waste heat into the ground in the summer months and extract heat from the ground in the winter months.

Geothermal heat pumps are slowly becoming a popular method of heating and cooling buildings. Heat pumps are especially popular across the state in large buildings such as schools, churches, and municipal buildings. Heat pumps use much less energy than traditional heating and cooling systems. This translates into energy and money savings while also reducing air pollution. There are some state incentives to help with the initial cost of geothermal energy.

## Education

Seward will not be able to achieve its energy goals without the help of its citizens. Seward should educate the public on the benefits of energy efficiency and the most feasible renewable energy systems. In the following subsections there are resources provided that Seward can use to raise awareness regarding energy efficiency and renewable energy systems.

### Home Energy Suite

On the city of Seward's website ([www.cityofsewardne.com](http://www.cityofsewardne.com)), follow the Electric Department heading to find the link to the HomeEnergySuite. Within the Suite is energy information, energy saving tips, and special purpose calculators. These calculators compare the costs of systems relating to heating, irrigation, lighting, heat pumps, and even televisions. The suite also includes the HomeEnergyCalculator that analyzes the energy efficiency of a home.

### 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 U.S. Department of Energy created a document that explains tips on saving money and energy at home: [http://energy.gov/sites/prod/files/2014/05/f16/Energy\\_Saver\\_Guide\\_PhaseI\\_Final.pdf](http://energy.gov/sites/prod/files/2014/05/f16/Energy_Saver_Guide_PhaseI_Final.pdf)

### Jobs and Economic Development Impact Models (JEDI)

Developed for the National Renewable Energy Laboratory, the JEDI models were created to demonstrate the economic benefits associated with renewable energy systems in the United States. This model can be used by anyone: government officials, decision makers, citizens. The model is simple, the user enters in information about the project and it will generate economic impact data such as jobs, local sales tax revenue etc.

## Funding

Although energy efficiency upgrades and some renewable energy applications will save money over time, the initial costs can be burdensome. Below are some incentives, programs, and resources that Seward can use to help with the initial costs of energy efficiency and renewable energy.

### Financial Incentives

There are a number of federal and state incentives for renewable energy production and energy efficiency. These include:

- Renewable Energy Tax Credit (Corporate)
- Renewable Energy Tax Credit (Personal)
- Property Tax Exemption for Wind Energy Generation Facilities
- Sales and Use Tax Exemption for Community Wind Projects
- Sales and Use Tax Exemption for Renewable Energy Property
- Dollar and Energy Savings Loans (State Loan Program)

For summaries of additional programs, incentives and policies in Nebraska visit the Database of State Incentives for Renewables & Efficiency (DSIRE) website:

<http://www.dsireusa.org/incentives/index.cfm?re=0&ee=0&spv=0&st=0&srp=1&state=NE>

### Grants

The city of Seward should continue to explore grant opportunities to help fund energy conservation or renewable energy projects. There are many state, federal, and non-profit agencies that distribute funding for energy projects.

### Energy Assistance Programs

Residents wanting help paying their utility bills can visit this website with links to many programs in Nebraska: <http://nebraskaenergyassistance.com/assistance/>

The Weatherization Assistance Program helps lower income families save on their utility bills by making their homes more energy efficient. The Nebraska Energy Office administers the federally-funded program. This website describes the program and how to apply:

<http://www.neo.ne.gov/wx/wxindex.htm>

## Current Energy Efforts and Achievements

- In 2010, the city of Seward received an Energy Efficiency and Conservation Block Grant distributed by the Nebraska Energy Office for \$253,640.55. This grant, along with the \$205,559.68 in matching funds, went to improving the energy efficiency of Seward's City Hall, the Wastewater Treatment Plant, and various other city owned buildings.
- In 2015, the city of Seward will upgrade all streetlights to LEDs. LED streetlights last longer than the current streetlights and use much less energy. This project will save the city of Seward in energy costs and manpower for years to come.

## Goals and Strategies

The following are goals and strategies suggested for Seward:

1. Reduce energy use per capita in Seward
  - a. Increase the energy efficiency of buildings within Seward
    - i. Adopt updated Energy Conservation Code
    - ii. Educate homeowners regarding practical energy efficiency measures
    - iii. Encourage meeting current LEED standards for new buildings and renovations in Seward
    - iv. Encourage residential and commercial energy upgrades
    - v. Encourage energy conservation through the siting of development and landscaping
  - b. Ensure efficient use of land resources
    - i. Encourage new development adjacent to existing development
    - ii. Encourage infill development
    - iii. Encourage mixed use development
  - c. Take advantage of programs and incentives offered by state agencies
  - d. Continue to encourage recycling in Seward
  - e. Educate citizens regarding the energy element
    - i. Implement education, outreach and citizen engagement strategies
      1. Continue to utilize city webpage to inform citizens of its energy related efforts, as well as provide energy saving tips
      2. Develop a demonstration garden at a highly visible public facility
    - ii. Recognize local projects that support the goals and strategies of the energy element
2. Increase the amount of renewable energy generated in Seward
  - a. Inform citizens about practical renewable energy options
  - b. Examine and remove unintended barriers for appropriate renewable energy generation
  - c. Evaluate the feasibility of producing renewable energy from a city owned facility
  - d. Encourage renewable energy use in buildings
3. Continue to reduce energy consumption within the city of Seward's operations
  - a. Conduct building energy audits on priority city buildings to identify energy retrofit and improvement opportunities
  - b. Educate city staff regarding energy consumption
  - c. Educate city staff on latest trends, energy codes, and systems
  - d. Explore feasible on-site renewable energy applications in appropriate city facilities and projects
  - e. Research funding opportunities to finance energy efficiency improvements
  - f. Work with the electric department and NPPD to regularly review and evaluate distribution systems, and other energy infrastructure.

## Definitions

LEED: Leadership in Energy & Environmental Design (LEED) is a green building certification program that recognizes best practices in building and construction. In order to receive LEED certification, building projects satisfy prerequisites and earn points to achieve different levels of certification. Building to LEED standards does not require LEED certification. (<http://www.usgbc.org/leed>)

DRAFT

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE OF THE CITY OF SEWARD, NEBRASKA TO AMEND THE COMPREHENSIVE PLAN FOR THE CITY OF SEWARD, NEBRASKA TO INCLUDE THE ENERGY ELEMENT AS PREPARED BY JEO CONSULTING GROUP, INC.; TO PROVIDE FOR THE REPEAL OF ORDINANCES INCONSISTENT HERewith; TO PROVIDE WHEN THIS ORDINANCE SHALL BE IN FULL FORCE AND EFFECT; AND TO PROVIDE FOR THE PUBLICATION OF THIS ORDINANCE IN PAMPHLET FORM.

BE IT ORDAINED BY THE MAYOR AND THE CITY COUNCIL OF THE CITY OF SEWARD, NEBRASKA:

Section 1. That the Amendment to the Comprehensive Plan for the City of Seward, Nebraska, pertaining to the Energy Element, prepared by JEO Consulting Group, Inc for the City of Seward, recommended by the Seward Planning Commission on February 9, 2015 after having a public hearing, and approved by the Seward City Council on February 17, 2015 after holding a public hearing, be and the same is hereby adopted.

Section 2. That copies of the Energy Element will be included within the three (3) copies of the Comprehensive Plan of the City of Seward, Nebraska, that are on file and kept in the office of the City Clerk of the City of Seward, Nebraska.

Section 3. That all Ordinances previously adopted by the Mayor and City Council of the City of Seward, Nebraska, which are inconsistent with this Ordinance are hereby repealed and without further force of effect.

Section 4. That this Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as required by law.

PASSED AND APPROVED this 17th day of February, 2015.

ATTEST:

\_\_\_\_\_  
Joshua Eickmeier  
Mayor

\_\_\_\_\_  
Bonnie Otte  
Assistant Administrator  
City Clerk/Treasurer  
Budget & Human Resources Director

(SEAL)