



Energy Initiatives in Central City

Underlying Principles

Central City is a small community (2,934) and our size allows us to be nimble and to enact programs quickly and efficiently.

As the owner and operator of the water, sewer, natural gas and electric utilities, it's not our role to maximize the revenues we draw from our residents. Our role is to support our residents in using less of our utility products.

Energy programs will not be initiated for symbolic reasons. They must be economically advantageous to the community.

Each dollar a Central City resident saves on energy costs is a dollar that can remain in our local economy.

LED Street Lights



All 380 residential street lights and 20 highway lights converted to LED in 2012
Estimated energy reduction of 220,890 kWh per year.
Roughly \$13,000 per year savings in electrical cost.
Estimated annual greenhouse gas reduction of 146 metric tons carbon dioxide eq
Energy Efficiency Block Grant covered 75% of cost.
4 year payback on our share of the cost on energy alone.

Second City to partner with Energy Pioneer Solutions in 2010



EPS performs energy audit and performs upgrades
City collects loans from EPS with a line item on utility bills
Utility bill reduction must equal or exceed loan payment.

Heating and Air Conditioning Loan Program

City will pay up to \$5,000 for any residence to replace its heating and/or air conditioning system.

Efficiency standard to be eligible. (13 SEER or 90% for gas)

Loan is 48 months at 2% interest

Payment goes on utility bill

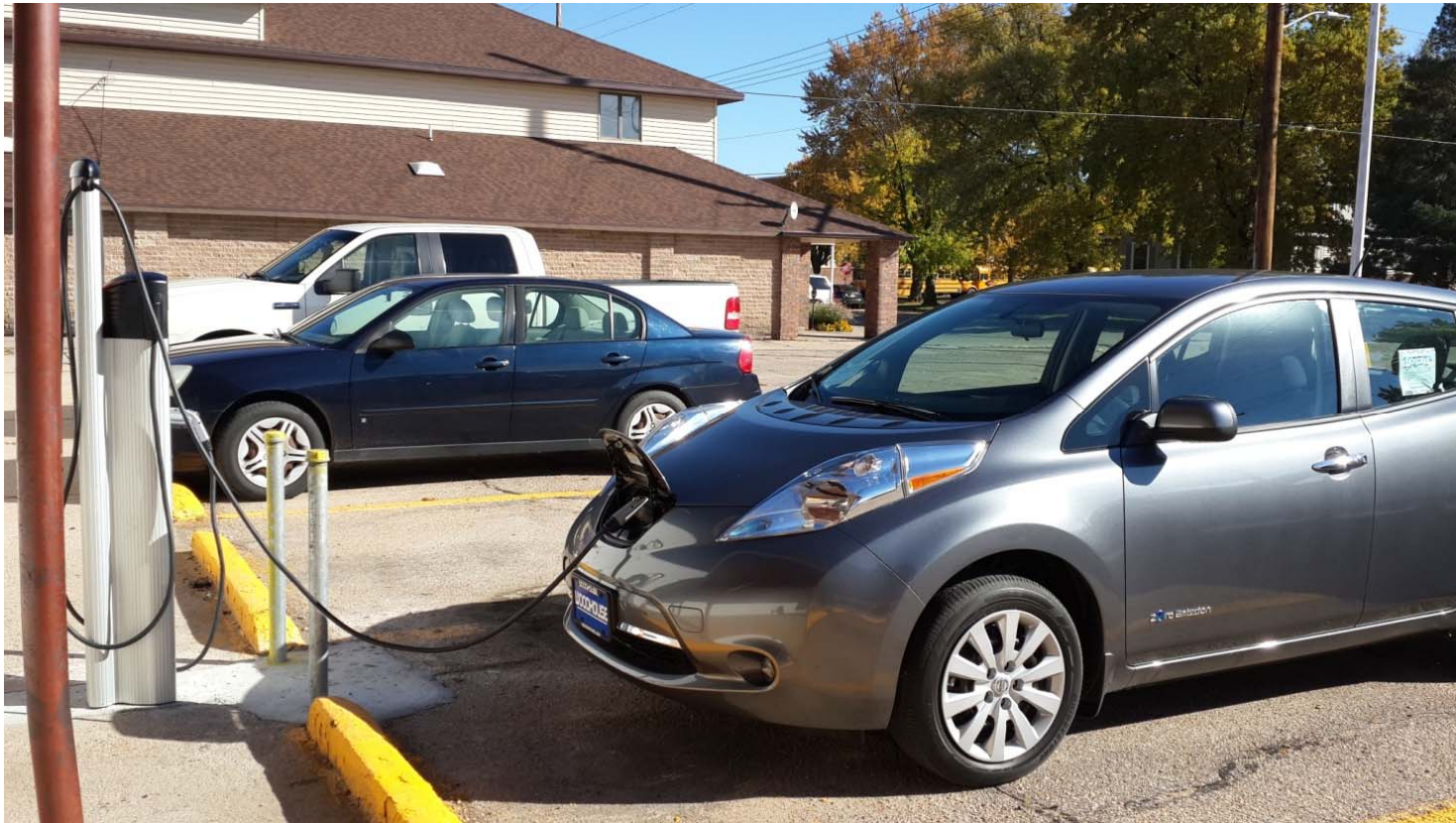
35 loans issued to date (2.5% of all households)

No defaults to date

Nissan Leaf

A Nissan Leaf and Chargepoint station were purchased with a grant from the Nebraska Environmental Trust.

Combining Leaf with solar production will allow zero emission transportation and very low per mile cost.



Central City Solar

The image is a screenshot of a web browser displaying the Central City, Nebraska website. The browser's address bar shows the URL <http://www.cc-ne.com/ccne>. The page features a dark blue navigation bar with the following menu items: HOME, ABOUT, STAFF, NEWS, CONTACT US, CALENDARS, and COMMUNITY PROFILE. Below this, a secondary navigation bar lists: City Government, Economic Development, Chamber of Commerce, Resources, Amenities, Real Estate, Utilities, and Residents. The main content area is dominated by a large photograph of a solar garden with rows of blue solar panels. Overlaid on the image is the text "Central City Nebraska" in a white, cursive font. Below that, a semi-transparent white box contains the text "Nebraska's First Community Solar Garden" in a dark blue, sans-serif font. At the bottom of the page, a grey banner displays "RECENT NEWS:" followed by three news items: "Opening »", "Council approves two loan apps »", and "More than \$4.4 million available to" with a "VIEW ALL NEWS »" link and a small icon.

HOME ABOUT STAFF NEWS CONTACT US CALENDARS COMMUNITY PROFILE

City Government Economic Development Chamber of Commerce Resources Amenities Real Estate Utilities Residents

Central City
Nebraska

Nebraska's First
Community Solar Garden

RECENT NEWS: [Opening »](#) [Council approves two loan apps »](#) [More than \\$4.4 million available to](#) [VIEW ALL NEWS »](#)

What Motivated Us to do Solar?

We wanted to get in front of the issue, rather than respond to it.

Private vendors are providing opportunities for easy home installations.

Bad installations would become a community and utility problem.



Zoning and Land Use Issues: What if a neighbors tree grows up and shades your panels?
What if a new house or building goes up on the next lot and shades you?



Unattractive Installations



Other Motivators

While not a primary motivator, we like the idea of reducing carbon emissions.

Consistent with our ongoing policy of reducing energy consumption. Perhaps 30-40% of the energy going into a generation plant reaches the end-use consumer.

Pending expiration of federal tax credit

Hedge against future wholesale rate increases

Progressive community that aggressively pursues opportunities
Nebraska's First Community Solar Project

Possible use in Economic Development proposals

What did we do?

In partnership with Mesner Development we established a single site where the City and local residents or businesses could co-locate in a single community solar garden.



We started with a 25 kW single row of panels in December 2014 as a test project.

We added 25 kW after assumptions were tested.

We added another 50 kW for 2 local businesses.

In the past month we added another 100 kW to serve additional interest. We now have 200 kW (800 panels)

We have partnered with Gothenburg on a project for 500 kW in each community and applied for a Nebraska Environmental Trust Grant.

Our goal is to reach 2 MW (2,000 kW) by the end of 2016.