

Power & water – a hundred year story

For the Public Utility Commission (PUC) of Clay Center, Kansas, 2005 is a centennial year. It is also one of the oldest municipally-owned utility systems in the United States and only one of three governed by a public utility commission in Kansas (the others are in McPherson and Kansas City Board of Public Works). An early milestone for the Commission was that it helped set a precedent in favor of municipal utility ownership nationwide.

Early history

In 1904 and 1905, the Clay Center City Council did three important things: they voted not to renew the franchise for the privately owned power supplier, Williamson & Co., because the



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Communications

company was demanding a hefty rate increase; second, they proposed a bond issue for the construction of a municipal power plant; and third, they proposed the establishment of the Clay Center Board of Public Utilities to operate and manage the new municipal power plant.

These actions set off a furor of court challenges by Williamson, who failed to get a court injunction to stop the city's building the power plant. The power battle came to a head in 1910 when a group of "nightriders," under city direction, cut down Williamson power poles and cut the main power line in several places.

Williamson had ignored a 1907 city council resolution demanding he quit providing power to the city and to remove company poles and lines.

municipalities across the country to own and operate public utilities.

Bill Callaway, 30-year PUC employee and superintendent of

In 1916 the U.S. Supreme Court decision was handed down in Clay Center's favor. The decision was a shot in the arm for public power, and it paved the way for other municipalities across the country to own and operate public utilities.

Later that same year, the legal battle came to a similar juncture when the case was presented to the U.S. Supreme Court. The contest was one to determine whether a city could be forced to buy the private company's plant at an exorbitant price or permit that company to furnish power at its

utilities, recently hosted two days of "Open House" celebrations for the 100 years of history at the Clay Center Municipal Power Plant. "On September 22, power plant managers and workers from around the state saw a demonstration of our new Fairbanks Morse/Mann dual fuel, 6800 kw generator," he



Bill Callaway superintendent of utilities, center, goes through the start-up sequence for Clay Center's new 6800 kw dual fuel Fairbanks Morse/Mann power generation unit during the September 22 Centennial Open House.

noted. "And on Saturday, September 24, it was the community's turn

own price. The city of Clay Center didn't believe it was under any such obligation at all.

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to tour the plant. Over 400 people attended and had a great time!"

How the Public Utility Commission works

The Public Utility Commission is made up of three commissioners each serving a three-year term. When a vacancy occurs, the

mayor nominates an appointee and the city council approves. After filling a vacancy, the only other time the Commission must go to the city council is in order to get city council approval to issue bonds to pay for capital projects.

“Our commission meetings are the first and third Mondays of the month where we typically go through over \$300,000 worth of budget items every two weeks. It works very well because our commissioners have continuity and a chance to get to know the utility business. They don’t change every time there is a political rift somewhere else – many serve for 20 years or more,” said Callaway. “They hold my feet to the fire, making policy to operate it like the business it is. If there’s money that’s not there and should be, they want to know why.”

The Clay Center PUC is also structurally unique in that it only administers the power and water utilities. The city of Clay Center

of taxes every year. We also find nearly \$100,000 a year to donate to the city in the much appreciated Utility Park and Public Utilities Zoo facilities. The Commission’s 34 employees also volunteer a lot

problem, like we’ve seen here in Kansas, with ice storms, tornadoes or floods, they don’t have the funds in reserve to get their utilities back up and running. Reserve funds are there for a

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of their time to maintain and enhance the park, zoo and other parts of the city.”

“Another very positive aspect of our Commission structure is this. I see a lot of city councils and administrators looking at their utilities as a way to lower a mill levee or cut taxes. That is wrong. They take the funds away from power generation, the water system, and go do other things like build visitor centers or a new city hall. Then when a utility has a

purpose and they should not be touched. When city councils see a million dollars sitting in a reserve fund, many won’t allow a rate increase. When our Public Utility Commissioners see that money, they know what it’s there for,” said Callaway.

On the revenue side, PUC rents the city fireplugs and street lights, which PUC maintains and the Commission also bills customers for power and water usage.



Clay Center Public Utilities Commission logo on the open house banner in front of the power plant, September 22, 2005.

handles the wastewater utility and streets. “We started as a commission in 1905 to be in charge of only water and electric,” Callaway explained. “In managing the two utilities we set our own budgets; hire our own employees; buy our own materials and fuels; and we pay a franchise fee of about \$100,000 to the city in lieu

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Why generate

The city of Clay Center PUC is a charter member of the newly formed Kansas Power Pool (KPP). Bill Callaway is chairman of the new KPP and notes, "We put our load together, assets together, outside contracts together and we operate as one entity." The pool is intended to give Kansas utilities more leverage to compete for the purchase of electric power with other regional groups. The seven communities that started KPP could generate about 300 megawatts. Now comprised of the 15 cities of Wellington, Winfield, Augusta, Chanute, Burlington, Neodesha, Clay Center, Beloit, Russell, Hoisington, Hillsboro, Stockton, Osborn, Lucas and Luray, they represent from 400 to 500 megawatts of generating power – and the organization is growing fast!

When a city without any generating capacity buys electricity, it pays a bill that has as the largest component, the capacity or demand charge. "To sidestep that capacity

power onto that grid when we need to," noted Callaway.

"I have 5000 customers to take care of, but not one stockholder. That's how the Public Utility Commission differs from a Westar. I am a strong supporter of public

producing power depends on the current price of the fuel needed to produce that power. "Depending on that price, we're buying or producing," said Callaway. "Either way, we're saving money for our customers."

"I have 5000 customers to take care of, but not one stockholder. That's how the Public Utility Commission differs from a Westar. I am a strong supporter of public power. It is one of the best assets of this country and I support it to the very end."

– Bill Callaway

power. It is one of the best assets of this country and I support it to the very end," exclaimed Callaway. "Because you keep your assets, you keep your revenue and it stays in the community, to be used for the community. We have 34 employees here, with more than \$100,000 paid every month in wages and benefits. At a three-time turn rate, that's \$3.5

2005 Master Water Plan

Actually there was a Clay Center water utility before there was a power plant. It was originally a private utility and went through a similar court battle over rates with a settlement and city ownership coming in 1888, making it the first Clay Center municipal utility. It was later joined by the power plant, making up what is today the Clay Center Public Utility Commission.

The PUC Master Water Plan is well on the way to finishing plan Phases I and II that will see a new water plant built on 38 acres of optioned land on Clay Center's west side. The present water system as described by Bill Callaway "is actually having eleven points of diversion, wells that we pump out of the Republican River Valley. Only five of them are currently used and the rest are in remediation. We pump directly out of the alluvial aquifer with chlorinate and phosphate added directly into the water distribution system for consumption."

Two years ago the PUC started researching what it would take to be in compliance with the new DBPR regulations, not wanting to wait until the last minute to make an attempt at compliance. "We made

to \$4 million a year that's spent here. If a private power company owned this utility we'd be lucky if we had two employees stationed in Clay Center."

"Firm" power

The true measure of a power plant is one that can produce sustainable or "firm" power. PUC is proud of the fact that the Clay Center facility could lose its largest generator and still generate the peak load needed by the community. Normally it can produce 28.5 megawatts, 24 hours-a-

day, generating the power needed with a generous surplus to sell.

The determination as to whether Clay Center is buying power or



Open House attendees discuss with Fairbanks Morse company representatives, the benefits of the new German-made dual fuel generator.

fee, a community must have 113% of power need in an 'idle reserve' or generating capacity. We have our assets here in town, able to put

the decision to route all of these wells into a new water facility so we can control chlorine contact time and it would also be a very good time to improve our water quality,” said Callaway.

The scope of the plan’s Phase I is also dictated by the locations of the city wells that are scattered all around the city. There will be two 16-inch pipes running the length of town, one delivering water to the treatment facility and the other delivering water back to the customers. The community also has 24 city blocks containing old cast iron water mains in need of replacement.

Phase II is being finalized right now and is about 90% engineering. “Reverse osmosis is the plant type we have chosen. With our problems of sulfites, iron, manganese – a bad manganese problem, this seemed to be the best way to go. Along with the reverse osmosis, a green sand filtration and a 70/30 water blend is the plan for the plant’s water. Straight RO would be far too

letting. Construction is anticipated starting in 2006.

A big technical concern

The proposed Clay Center system would have a typical need to back flush through the system with a workable discharge point. “One of our biggest problems is the reject water. If we can’t discharge that water somewhere. It’s going to add \$2 million to project costs in order to construct and maintain deep injection wells. We need to find a way with KDHE to safely discharge that water,” said Callaway.

One of the engineering comments was that currently, customers use water softening salts extensively in area homes. With the new facility online, that no longer would be the case with ultimately a sizeable net decrease in salt going into the river. KDHE’s concern for the process is not the volume of salts but the amount of sulfite discharge into the river. The engineering study is being looked at carefully to check this total.

A second possibility for discharge of reject water is for a partnership with farming operations across the Republican River. Currently, farmers in the area have built two impoundment basins and use a skimming permit to pump water from the river in the winter and store it in the basins for irrigation use in the summer.

Engineers are looking at the costs and possibilities of a directional bore under the river to place a feed line and constructing additional impoundment basins to accommodate 200 acre-feet of

blended sulfite water per season to be utilized for irrigation.

“If PUC could team up with these folks, who really need the water, it might work. The plan would provide 200 acre feet of water, assist in building the storage reservoir and bore the line under the river. I’d like to see the water irrigate corn rather than going into the river or down an injection well, which would kill our entire water project,” explained Callaway.

Project costs

As the project continues there is no doubt that water rates will probably double in Clay Center. Current rates are low, with a household rate of \$1.00 per 100 cf and an industrial rate set at \$1.25 per 100 cf.

The total estimated cost of the project is \$8 million. If another \$2 million is added for injection wells, price increases might not be feasible to cover the tab.

Action on the project is on a fast track in hopes of taking advantage of current low interest rates. The PUC will go to the Clay Center City Council to ask for revenue bonds to pay for the project.

Success is a long time coming

The Clay Center Public Utility Commission form of utilities management is a success story that has been built over the last century. Much history of accomplishment and service not written about in this article has steeled these two utilities in a determination to flourish in their mission: *To provide reliable low cost water and energy for Clay Center’s present and future needs, along with quality leadership and foresight to improve the value of life for Clay Center Citizens.*

A full-color 20 page centennial history booklet, “Clay Center Public Utilities Commission, Celebrating 100 Years of Public Service” is available from the PUC office in Clay Center. Call 785-632-2137 for more information.



The footbridge and stream on a hot summer day at Clay Center’s Utility Park. The park is owned and maintained by PUC with employees volunteering many hours a year to keep it in tip-top shape.

corrosive for our distribution system. So we have to do something with a blend some way or another to take that factor down,” added Callaway. After completion of Phase II, Phase III will involve construction engineering and bid