

Harbor Springs City Council Minutes
October 22, 2007

Mayor Jardine called the twenty-first meeting of the Harbor Springs City Council to order at 7:00 pm, in the City Council Chambers at 160 Zoll Street, Harbor Springs, Michigan. Mayor Jardine stated that this Council Meeting was a Special Meeting called for the purpose of reviewing Electric System issues concerning Potential Power Supply Options and Electric System Distribution Service Issues.

1. Roll Call and Verification of Quorum

Present: Jean Jardine, James C. Grogan, Michael K. Heinz and Dennis Wiggins

Absent: Laura Kors

Also Present: City Manager Frederick W. Geuder, Electric Superintendent Dennis Ory and City Clerk Ronald B. McRae

2. Electric System Issues

City Manager Geuder stated that Charles Fricke, our Consulting Engineer on the Electric System, would review two issues with Council. They are:

- a. Future power supply options; and
- b. Consideration of transformer capacity and location issues.

A. Potential Power Supply Options

City Manager Geuder reviewed the City's participation in the Michigan Public Power Agency (MPPA). He also gave a history of the City's involvement in the MPPA and its advantages to date.

Fricke discussed the City's power supply status. Currently the City owns generating capacity in two plants, the Consumer's Power Campbell Plant and the MPPA's Kalkaska Combustion Turbine Plant. Fricke stated that the City's peak load was roughly nine (9) mega-watts (MW) in 2007. In addition the City should have reserves of about two (2) MW. The City owns approximately .5 MW of capacity in the Campbell Plant and 2.0 MW of capacity in the Kalkaska Combustion Turbine Plant. Just to meet its load, the City has to purchase 6.5 MW at its peak. Currently, the City is able to purchase its deficient power needs through the MPPA Power Pool. Lansing Board of Light and Water is the largest supplier of power in the Pool. However, Lansing has given notice of its intent to drop out of the Power Pool by the end of 2010 and they plan to sell their surplus power on the open market, where they can presumably command higher prices. Absent a new agreement, at that point the City of Harbor Springs would be purchasing power at the market price.

Fricke also reviewed the MPPA's Power Pool resources. He reviewed the MPPA's non-coincident peak usage. He pointed out that if the MPPA remaining Power Pool members no longer have a contract, the Pool would have to go to the market to supply the municipalities that will continue to use the power purchasing ability of the Pool. With Lansing's withdrawal from the MPPA, the remaining Pool members will be in a deficit resource situation.

A number of the municipal electric companies have formed a "Base Load Resource Service Committee" that is looking at other options for purchasing generated power. Also, a second committee, "Michigan Coordinated Energy Partnership Committee", has been formed. The Michigan Coordinated Energy Partnership Committee (CEPC) consists of municipal electric companies in Michigan; some are along the Indiana – Ohio border. Both committees are researching where to purchase capacity in generating power plants. Manager Geuder stated that the parameters are different for

some of the municipals in the CEPC because of their location. The City of Harbor Springs is a member of both committees.

It is the position of the MPPA that they would prefer to purchase capacity, rather than purchase power from the market. Further, the MPPA would prefer to purchase capacity in Michigan based generation plants. Fricke believes that the transmission lines are more available to get power to Harbor Springs if the power is generated from plants located in the lower peninsula of Michigan. He is aware of four potential power plants being planned at the current time.

Because it may take up to eight years to build a generation plant, Fricke hopes the Pool will bridge the resource deficit through temporary power purchase contracts. To bridge a power purchase is to buy the power at a reduced or more favorable rate until the plant is constructed wherein the City has committed to purchase generation capacity. The "bridge" lasts until the generation plant starts generating power.

What will all this cost? Fricke stated that he did not know. However, he did say that no matter what happens, the City's costs for power will continue to rise. Fricke also pointed out that the City's rates to its customers compare favorably to the Great Lakes Energy and Consumers Power rates. Fricke stated that he would be bringing some of those options to Council over the next few months.

Council questioned what the City's average load is at minimum time? Superintendent Ory stated it was near 7 MW.

B. Local Issues

Fricke stated that the City should address its distribution issues. He reviewed the City's maximum peak use, its minimum peak use and the maximum capacity of the substation to distribute the power to the City's customers. During 2006, the City's coincident peak usage was 10.7 MVA. During 2007, the City's coincident peak usage was 9 MVA. Fricke used a graph to demonstrate where he believed the City's projected peak usage was going. The graph showed that in 2011 the City would experience a peak usage of 13.3 MVA and in 2016 the projected peak usage would be 16 MVA. The Clayton Road substation has a capacity of 7 MVA per transformer. There are two transformers giving the City a maximum capacity of 14 MVA.

During the summer of 2009, if the projections are correct, the City would have a black out for part of its system if one of the transformers fail. Fricke complimented the City on its foresight to purchase a transformer as a spare. However, Superintendent Ory believes to get that transformer in place and ready to be operational will take approximately a day. Superintendent Ory stated that the substation maintenance is scheduled for the spring and fall to avoid downtime during the summer months.

Fricke stated that due to the City's peak usage, a long term plan needs to be implemented to provide addition capacity. Fricke stated that the GRP Engineering report provides a lot of data that is applicable. However, he believes, especially after discussions with City Manager Geuder and Superintendent Ory that the system upgrades need to be phased in, and may be able to be done at lesser costs than the study indicated.

Fricke made the following recommendations:

- a. Build a substation with the capacity for two transformers, but only install one initially.
- b. Expand the number of circuits from three to five, possibly done in phases.

c. Bring a 46,000 volt feed line to the new substation.
City Council Meeting Minutes
October 22, 2007
Page 3

- d. Under-build a 12.5 kv distribution line on the same poles as the 46,000 volt feed line.

Fricke detailed his recommendations. Because the load growth has been in the downtown area, he recommends construction the substation as close to downtown as possible utilizing the existing lines and poles. Fricke stated that the City's circuit north of Town along Bester Road has a line that can handle 46,000 volts. It is currently feeding 12.5 kv. The line can be upgraded by replacing bad poles and cross arms, and installing new insulators where necessary. In a couple of years, the City could run a new 12.5 kv distribution line by under-building on the proposed 46,000 volt line when the City's load required it.

City Manager Geuder stated that he believed that the proposed substation could be built in the area of City owned wooded property south of East Lake Road, west of the parking area for the track and soccer fields and east of East Lake Street (Park Avenue), north of the Emmet County Care Facility. The substation could be screened more by planting pines and possibly have the entrance drive come off the parking lot after obtaining an easement from the School District.

Fricke also stated that the City could look to purchase rebuilt transformers, rather than buy new. Fricke reviewed some of the specifications required for the rebuilt transformers. Fricke believes that some rebuilt transformers are better than some of the new ones manufactured today. Materials were better a number of years ago and a rebuilt transformer may be as much as fifty percent less than a new one.

Councilperson Wiggins asked if the alternative was reviewed of just increasing the Clayton Road Substation to construct a third transformer. Fricke stated that he believed that option would not be sufficient to provide the City with the best long term solution. Nor did he believe that it would be the most cost effective.

Councilperson Heinz asked why we want the proposed substation in Town. Fricke responded that the proposed substation location would result in a minimum cost to run lines to that location and can be easily connected to the distribution lines.

Councilperson Wiggins questioned how realistic the growth projections were in the GRP study. He also questioned the accuracy of the engineer growth estimates from the late 1980s when the recommendation was made to move the substation out to Clayton Road. Former Mayor Dika responded to the Council's considerations at that time, as he noted he was on Council at that time. Fricke noted that even if growth estimates are too high, the trend is still upward. One new transformer is needed now in any case.

Superintendent Ory stated that much of the growth occurring in Harbor Springs is due to the upsizing of homes and businesses. Many of the homes and businesses are being remodeled or rebuilt with larger capacity electric services, for such items as air conditioning. The growth on the west end of the system (including within the City limits) was not fully anticipated at the time of the study 20 years ago.

Fricke stated that Council members had good questions and stated that he would review Councilperson Wiggins' suggested alternative option of expanding the Clayton Road Substation, as well as look at other questions.

3. Adjournment

With no further business, Mayor Jardine adjourned the meeting at 8:49 pm. The next regular meeting is scheduled for November 5, 2007.

Approved: November 5, 2007

Ronald B. McRae, City Clerk

Jean Jardine, Mayor