

# *Village of Carol Stream*

**SPECIAL WORKSHOP MEETING**

**MONDAY NOVEMBER 3, 2014**

**6:00 P.M.**

**GREGORY J. BIELAWSKI MUNICIPAL CENTER**

**500 N. GARY AVENUE**

**CAROL STREAM, ILLINOIS 60188**

**LOWER LEVEL TRAINING ROOM**

## **AGENDA**

1. CALL TO ORDER
2. ATTENDANCE
3. FUELING SYSTEMS INTERNAL CONTROL REVIEW
4. ELECTRIC AGGREGATION
5. OTHER BUSINESS
6. ADJOURNMENT

# Village of Carol Stream

**DATE:** October 10, 2014  
**TO:** Joe Breinig, Village Manager  
**FROM:** Jon Batek, Finance Director  
Phil Modaff, Director of Public Works  
**SUBJECT:** **Results of Fuel Usage Internal Controls Review**

## **Background**

On June 16, 2014 the Village Board awarded a contract for professional accounting and advisory services to the consulting division of our auditing firm Sikich. The purpose of this engagement was to perform an internal control review of the Village's processes related to the dispensing of fuel at the Public Works Center. This was recommended following staff's identification of significant variances between fuel purchased, fuel dispensed and recorded in the accounting system and periodic physical inventories taken from our underground fuel tanks.

Attached to this memorandum is the report of findings and recommendations issued by Sikich following their review which was conducted in August/September. This report communicates the scope of the engagement, the various documents and systems which they reviewed as well as the procedures they performed, including areas where control weaknesses were identified and suggested recommendations moving forward. This memorandum is intended to convey staff's response to the consultant's findings and process changes which have been implemented as a result of this review.

## **Consultant Review (Pages 2 - 8)**

The documentation of the fueling process as well as procedures performed and observations made by Sikich are identified on pages 2 through 8 of the report. A few noteworthy observations include:

- As a result of their independent review of fueling system records, including fuel inventories (Veeder Root system) and dispensing records (Petro Vend and Phoenix systems), Sikich was able to reconcile very closely to the large fuel variance identified by staff which prompted the need for a consultant review (p. 5).
- Sikich was able to independently verify that not all of the fuel dispensed (based on changes in physical tank inventories) was being recorded by the software which produces

detailed vehicle use data (Petro Vend / Phoenix) needed for the proper billing to user departments (p. 5).

- Sikich also performed fuel usage tests down to the individual vehicle level and found some very unusual relationships between the number of miles driven since last fueling and very low gallons pumped for a refueling transaction. This signals possible problems with the reporting software which measures fuel dispensed (Petro Vend / Phoenix) (pages 6 – 7).
- Inquiry of the 3<sup>rd</sup> party company which maintains the fuel dispensing equipment (Petro Vend / Phoenix) suggested variances could be caused if the system is placed in “bypass” mode. This is inconsistent however with very low refill gallons pumped as explained in the bullet point above. In the alternative, the maintenance company suggested that, while rare, there could be an intermittent malfunction in the “pulser” which records fuel dispensed (p. 8).

### **Recommendations** (pages 9 – 10)

Staff's response to the consultant's recommendations are enumerated below and correspond to the consultant's report.

1. **This recommendation has been implemented.** Historically, the Finance Department only requested fuel tank inventories from Public Works on the last day of each fiscal year for purposes of valuing fuel inventory for the audit. Prior to the large variances discovered in FY13 and FY14, year-end fuel reconciliations did not result in notable variances, therefore inventories were not performed on a more frequent basis. As larger variances began occurring, we switched to daily inventories in an attempt to pinpoint the timing and nature of variances. As indicated in the consultant's report, there was a period during the transition of Garage Supervisors between December 2013 and May, 2014 where daily readings were not taken due to the recruitment and training of the new supervisor. Daily inventories are currently being taken, giving staff the ability to track fuel variances on a near real-time basis.
2. **This recommendation has been implemented.** The internal fuel pump mechanical totalizer (similar to a vehicle's odometer) values have also been added to the daily inventory tracking spreadsheet to help identify variances between fuel pumped and recorded by Petro Vend and actual change in volume of inventory.
3. This is not a recommendation, it is merely a step in the reconciliation process which is currently being performed.
4. **This recommendation has been implemented.** Daily Petro Vend reports have always been run as a part of our fueling process so this is not new to our procedures.

5. **This recommendation has been implemented.** This has always been a part of our procedures and is not new to us.
6. **This recommendation has been implemented.** This has always been a part of our procedures and is not new to us.
7. **Implementation of this recommendation is in process.** We have routinely contacted our 3<sup>rd</sup> party service provider (Beacon SSI) for maintenance as needed. The current system (Petro Vend) is however quite old and we have not received regular updates to the system software. The entire fueling system, including underground storage tanks which are now approaching 30 years in age, is being reviewed by a consultant engaged by the Public Works Department to identify available options and related costs of rehabilitation or replacement of fueling systems, including dispensing and accounting software.
8. This is not a recommendation, it is merely a step in the reconciliation process which is currently being performed.
9. **Implementation of this recommendation is in process.** We are currently reviewing available options with respect to the rehabilitation or replacement of the fueling systems. Additional information will be provided in conjunction with the upcoming FY15/16 budget process.
10. **This recommendation has been implemented.** In August, a replacement keyed lock to the fuel pump control panel was installed with keys only accessible to authorized personnel.
11. **Implementation of this recommendation is in process.** Public works is currently updating its policies with respect to the decommissioning or reprogramming of fueling key fobs which have not been used for a predetermined period of time as well as communications improvements related to the disposal of vehicles by all Village departments.
12. **This recommendation has been implemented.** This has always been a part of our procedures and is not new to us.
13. **This recommendation has been implemented.** This has always been a part of our procedures and is not new to us.

## **Conclusions**

Given numerous documented instances of inaccurate or suspicious fuel usage data from the current system (fueling transactions of 0.1 gallon and "lost" consumption on vehicle transfers between departments, etc.), the age of the current system and the infrequency of available software updates or other available preventive maintenance, it appears highly probable that the significant inventory variances which have been observed over the past year or more are not the

result of actual fuel loss, but of legitimate consumption which was not reflected in fueling reports provided to the Finance Department for billing. Furthermore, Sikich concluded their report of findings by indicating that none of the evidence they reviewed in connection with the engagement pointed to possible abuse or other unethical behavior, and as such, did not recommend expansion of their engagement to further investigate any possibility of fraudulent activity.

Since the Public Works Department has been performing daily reconciliations over the past several months, unexplainable fuel variances have continued, albeit not to the same degree as previously observed. This has continued to occur despite the intense scrutiny and additional controls that have been put in place during this time (additional lockdown of access to the pump control panels and bypass switch, no suspicious video surveillance evidence and general knowledge by staff that we have been focusing attention in this area).

Additional recommendations will be forthcoming as we begin discussions for the upcoming fiscal year 2015/16 budget.



September 23, 2014

Mr. Jon Batek  
Finance Director  
Village of Carol Stream  
500 North Gary Avenue  
Carol Stream, Illinois 60188

RE: Internal Controls Review – Fuel Usage

Dear Mr. Batek,

The Village of Carol Stream engaged Sikich, LLP for professional accounting and advisory services to provide expert and independent opinion in the form of an internal controls review to explore certain issues related to fuel usage and reporting as directed and identified by management.

### Scope of Engagement

The scope of the engagement included the following:

- Review all policies and procedures related to this function (fuel dispensing, recording and billing.)
- Mapping of current internal controls and processes related to fuel usage to compare actual practice with policies and procedures and to identify gaps in controls which require a deeper review.
- Review of accounting calculations related to fuel usage for the last two fiscal years to ascertain whether the discrepancy in inventory arises from faulty methodology or error.
- Review of Petro Vend system for adequacy of controls.
- Reconciliation to the extent possible of actual mileage with the fuel used, use of 90 key and possible overrides.
- Review of system for fuel usage by employees.
- Review of vendor invoices and pricing.

## Review/Investigation

During the course of the review, Sikich interviewed Carol Stream employees with knowledge of the fuel acquisition, dispensing, recording and billing practices and procedures including Philip Modaff, Linda Mehring, Michele Lopez, Andrew Olsen, Dawn Damolaris, Barbara Wydra and others. Sikich, accompanied by Village of Carol Stream staff, also spoke with a representative of Beacon SSI, a vendor that services the Veeder Root and Petro Vend systems. Veeder Root is a mechanism that measures tank volume. Petro Vend monitors fuel dispensed from the underground fuel tanks. Petro Vend is a proprietary system. Phoenix is a reporting tool that pulls data from Petro Vend for reports.

After initially speaking with the group, Sikich learned that the Village of Carol Stream could not reconcile variances between physical inventories of fuel and amounts billed to user departments and other agencies. For Fiscal Year 2014 (May 1, 2013 through April 30, 2014), a diesel fuel variance of 5,522.5 gallons was noted. Since the Fiscal Year 2014 diesel fuel variance – amount used vs. amount billed – totaled nearly 92% of the FY 14 variance, the review focused specifically on that variance. It should be noted that variances were identified in all fuel types dispensed, however, variances in diesel fuel dispensed versus amount billed account for 83% of all fuel variances in the last three fiscal years.

Staff was then interviewed for more specific information. During this process Sikich learned the following.

### Background

- The Village has two gas pumps with a total of four fuel hoses. One hose is for diesel, the other three dispense unleaded gas.
- Vehicles and equipment are assigned key fobs that need to be inserted into the Petro Vend system to allow fuel to be dispensed. Once assigned to vehicles, these fobs are then entered into Petro Vend and Phoenix to allow fueling and reporting. If a fob is not entered into Petro Vend, the system will not allow gas to be dispensed. If a fob registered only in Petro Vend (but not to Phoenix) is used to dispense fuel, upon polling Phoenix will indicate that there has been an “incomplete” transaction. In this case, Petro Vend is reporting activity on a fob that Phoenix does not recognize. Staff is trained to review the reports and recognize the “incomplete” record and, once the fob in question is entered into Phoenix the next polling conducted will generate the completed record and assign billing as appropriate.
- Equipment such as weed whackers, chain saws and blowers use the miscellaneous key – keys 92 and 99 - which are assigned to the Streets Department.
- Veeder Root is a mechanism that reads tank volume. Tank volume readings include entries for:
  - Volume –the current fuel in the tank
  - Ullage – remaining space in the tank
  - 90% Ullage – how much fuel can be added to the tank to reach 90% capacity
  - TC Volume - Temperature Compensated Volume (normalizes to volume at 60 degrees)
  - Height

## Internal Controls Review – Fuel Usage – Village of Carol Stream

- Water Volume – (gallons)
- Water - (inches)
- Temp – (tank)
- Storage tanks, which each hold approximately 8000 gallons, can be filled to 90% capacity. When the unleaded tanks have 2000 gallons of fuel, 4000 gallons are purchased for each of the two tanks – an 8000 gallon purchase. When the diesel tank nears 1000 gallons, a 6000 gallon purchase is ordered.
- When the Village needs to make a fuel purchase, the garage supervisor contacts four vendors – Avalon, Feece Oil Company, Texor Petroleum and Gas City. The vendor providing the lowest price quote is selected for the purchase.
- After the vendor dispenses the fuel into the underground tank, a Veeder Root reading is taken to verify the amount purchased. When current purchases are made, Veeder Root readings before and after the tank is filled are taken by the garage supervisor and those readings accompany paperwork submitted to Public Works and Finance staff.

### Dispensing Fuel

- All Village departments are allowed to fuel at the site: Police, Public Works, Administration, Community Development and Engineering. The Carol Stream Park District, School District #93 and DuComm (DuPage Public Safety Communications) also fuel at the site.
- Drivers determine when vehicles need re-fueling.
- To obtain fuel, the user enters his/her employee number, his/her unique PIN and the vehicle's mileage.
- The system will prohibit fueling if the mileage entered does not reconcile with expected vehicle mileage based on historical entries. (This was tested and verified.) If appropriate entries are made, fuel is dispensed.
- As fuel is being dispensed, Petro Vend measures the amount dispensed through a pulser – which “pulses” once for every 1/10<sup>th</sup> of a gallon dispensed.
- A key can be used to access the Petro Vend control panel which contains switches that can be manipulated to disengage Petro Vend from recording data from fuel transactions. When on bypass, no data, or pulses, are sent to Petro Vend to record fuel transactions, thus no records of transactions during bypass are available.
- A new lock for the control panel was installed in early August 2014 with keys available only to the Public Works Director and the Garage Maintenance staff.
- A mechanical totalizer maintains a running total of all gas dispensed from each of the fueling stations, even while on bypass.
- Security cameras monitor the fueling island. Digital recordings from the camera are maintained for two weeks.



## Internal Controls Review – Fuel Usage – Village of Carol Stream

### Reporting Process

- Each workday morning, office staff “Poll the Site” – which means pull data from Petro Vend to Phoenix.
- A daily report is run for the previous day - midnight to 11:59 p.m. the night before the polling. In essence, data is not pulled from the previous 7 hours if the site is polled at 7:00 a.m. on a workday. Data from those 7 hours is captured in the next polling.
- A polling report printout is given to the Garage Supervisor. The polling report indicates how many transactions occurred on each pump during the time queried, the volume of the fuel dispensed per transaction and totals for each.
- The Garage Supervisor then pulls a Veeder Root tape from a machine in the garage and enters the total volume from the Veeder Root tape on a spreadsheet along with the total consumption per pump from the Petro Vend site report. Currently, this is reviewed by the garage supervisor daily to make sure the numbers reconcile.
- From December 2, 2013 until May 1, 2014 no one made entries on this spreadsheet.
- Staff in the Public Works department pull monthly usage reports from Petro Vend/Phoenix and send the report to the Village’s Finance Department. The report details gas usage by vehicle and allows the Finance team to bill the appropriate Village department and other agencies.
- Fuel purchase invoices are also sent to the Finance Department for vendor payment processing.

### Billing Process

- The Finance Department receives the monthly usage reports from Public Works as generated by the Phoenix system. Fuel use is recorded to the general ledger monthly based on actual usage and outside agencies (Carol Stream Park District, School District 93 and DuComm) are invoiced.
- Finance staff enter the amounts from the fuel usage reports on the journal entry under the correct department code.
- The department amounts are then allocated to the different programs within the department by the prorata share. Outside billings are charged an additional \$.15/gallon surcharge which is added to the invoice.
- The actual amount of gas consumed is recorded to reduce the inventory.
- The monthly inventory purchases are debited to the inventory account on the balance sheet and the contra expense account credited on the income statement.
- Both the Fuel Purchase Account and the Fuel Purchased Contra account should equal.
- Once the excel journal entry is completed, it is entered by the Accountant into “Munis” (financial accounting system) recurring journal entry and posted to the General Ledger.
- The Village bills other agencies on a last-in-first-out method, meaning Village departments and other agencies are billed the most recent gas purchase price.
- As of March, 2014, monthly fuel reconciliations are prepared by the Accountant during the month-end process. Prior to that time, monthly reconciliations of fuel were not completed. The reconciliations are based only on gallons of fuel in each tank - the volume from the previous month, evidenced by the Veeder Root reading run by the Garage Supervisor, increased by any

Internal Controls Review – Fuel Usage – Village of Carol Stream

fuel purchases made during the month by gallons received and decreased by the monthly billings in gallons by tank report received from Public Works. The sum of the above is compared to the tank tape run at the end of month by the Garage Supervisor. The differences are noted on the reconciliation. The reconciliations are copied and given to the Assistant Finance Director. Village staff has not yet determined an acceptable monthly variance.

- In the past, if there was a variance, Finance would work with Public Works to determine possible reasons for the variance. The variance was discussed by the Assistant Finance Director and the Accountant. Necessary adjustments were spread to all the departments and outside agencies using the monthly journal entry.
- When it was determined (see below) that Petro Vend was not reporting accurate quantities of fuel dispensed, Sikich did not further review the billing process.

Significant Variance Identified by Finance

- Nearing the fiscal year-end of April 30, 2014, the Department of Finance identified a significant variance between the total fuel dispensed according to Petro Vend records and actual inventory during Fiscal Year 2014. This variance totaled 5430 gallons as of a March 19, 2014 Veeder Root reading.

Verification of FY 14 Diesel Variance by Sikich

- Sikich obtained all available Veeder Root readings performed throughout FY 14. Sikich then had Public Works staff run Petro Vend reports for each period between Veeder Root readings to compare usage totals and to identify any period with an excessive variance to pinpoint any time period where a significant non-reporting of fuel dispensing occurred.
- This research revealed that in FY 14 (between April 30, 2013 at 4:14 p.m. and April 25, 2014 at 8:28 a.m. – when the last Veeder Root report during the FY 14 was run), Veeder Root reported 19,075 gallons of diesel fuel dispensed while Petro Vend only recorded 13,526.3 gallons dispensed. Specifically anomalous are the variances from the following date ranges (based on available Veeder Root readings):

From	To	Veeder Root usage (gallons)	Petro Vend usage (gallons)	Variance
12/11/13 9:46 a.m.	12/12/13 8:33 a.m.	204	0	204
12/17/13 9:07 a.m.	12/18/13 8:04 a.m.	58	0	58
12/26/13 7:16 a.m.	12/27/13 7:47 a.m.	81	0	81
12/30/13 7:17 a.m.	1/8/14 2:03 p.m.	2,119	830	1,289
1/8/14 2:03 p.m.	2/19/14 3:19 p.m.	4,209	1907	2,302

- Sikich calculated that the Veeder Root usage and Petro Vend usage varied by 5548 gallons. (Again, for the period of April 30, 2013 through April 25, 2014). This variance meant that the Village of Carol Stream did not bill – either Carol Stream user departments or outside agencies – for this amount of diesel fuel in FY 14.

## Internal Controls Review – Fuel Usage – Village of Carol Stream

- This total closely reconciles with the total calculated by the Carol Stream Finance Department.

### Historical Issue – Petro Vend

- In Fiscal Year 2009, Village staff discovered that Petro Vend reported the quantity of numerous diesel fuel transactions as only 1/10<sup>th</sup> or 2/10<sup>ths</sup> of a gallon. These transactions occurred in December 2008 and January 2009 until corrected. Current staff could not remember how the problem was corrected and billing records for any service calls are no longer available.

### Review of FY 14 Diesel Transactions

- Sikich reviewed 309 FY 14 diesel fuel transactions and identified numerous anomalous transactions indicating that the quantity of fuel being dispensed may be inaccurately recorded. Some of these anomalous transactions are depicted below.

Vehicle	miles since last re-fueling	quantity (gallons)
31	189	18.6
31	228	1.1
31	394	0.2
40	76	8.6
40	131	2.9
42	230	28.6
42	103	5.2
42	116	11.9
42	63	0.7
50	54	13.7
50	107	5.9
65	76	0.1
65	109	8.4
65	284	4.4
65	161	7.9
67	166	4.9
71	98	0.5

Internal Controls Review – Fuel Usage – Village of Carol Stream

71	112	0.5
72	185	1.1
72	92	0.2
73	22	1.2
73	69	1.2
73	60	0.7
74	93	0.1
74	123	2.8
74	107	3.7
75	139	0.1
79	48	0.2
80	18	0.1
82	59	1.3

- These transactions reflect numerous records of a vehicle receiving fuel inconsistent with the amount of miles it was driven since its last fueling, or more importantly, vehicles receiving a minimal amount of gas especially given the amount of miles driven.

Key Fobs

- A key fob is programmed to the vehicle to which it is assigned and also into Petro Vend and Phoenix. The fob is inserted into the Petro Vend machine on the fuel island allowing the user to dispense fuel.
- When a vehicle is no longer in use, or sold by the Village or the other agencies, the fob is decommissioned and can no longer be used until being re-programmed for use with another vehicle.
- Village of Carol Stream staff informed Sikich that they are not always told when a vehicle is sold.
- A Petro Vend report revealed numerous fobs assigned to vehicles that had not been fueled since 2012 or prior. Specifically,
  - Five valid fobs are assigned to Carol Stream Street Division vehicles that have not been fueled since 2012 or before; one fob is assigned to a car that was last fueled in 2008.

## Internal Controls Review – Fuel Usage – Village of Carol Stream

- One valid fob is assigned to a Carol Stream Water Division vehicle that has not been fueled since 2006.
- One valid fob is assigned to a Carol Stream Engineering Services vehicle that has not been fueled since 2008.
- Four valid fobs are assigned to School District vehicles that have not been fueled since 2005 or 2004.
- Three valid fobs are assigned to Park District vehicles that have not been fueled since 2012, one of those fobs is assigned to a vehicle that was last fueled in 2007.
- Nine valid fobs are assigned to Carol Stream Police Department vehicles that have not been fueled since 2011 or before; four of those are assigned to vehicles that were last fueled in 2005.
- The Village maintains an inventory of fobs to assign to new vehicles.

### Beacon SSI

- Beacon SSI services the Petro Vend, Phoenix and Veeder Root systems in operation at the Village of Carol Stream and performs other maintenance and testing on the fuel storage tanks.
- When presented with the variances between Veeder Root and Petro Vend, a Beacon representative opined that the system may have been placed on bypass.
- In the alternative, the Beacon representative suggested there may be a problem with the pulser which should be recording the volume of diesel fuel being dispensed. If a pulser is going bad, he stated, it usually fails quickly. Although unusual, the pulser could intermittently fail.

### Control Weaknesses

- Petro Vend failed to accurately record numerous diesel fuel transactions creating large variances between Petro Vend and Veeder Root fuel usage data.
- From early December 2013 thru January 2014 the garage supervisor position was vacant. After training, the garage supervisor began entering daily Veeder Root readings to the spreadsheet used to make monthly reconciliations between the Veeder Root readings and Petro Vend in May 2014. In the interim, the large variances occurring between December 2013 and May 2014 were not noticed.
- Since the daily Veeder Root readings were not being recorded, monthly reconciliations between Veeder Root and Petro Vend, which now occur, were not being done.
- Numerous key fobs, which are an essential control in the fuel dispensing process, remain valid despite not having been used to fuel vehicles in more than two years, and in some occasions valid fobs have not been used in nine years.

## Internal Controls Review – Fuel Usage – Village of Carol Stream

- The Village of Carol Stream Public Works Department is not consistently informed of the decommissioning or sale of vehicles from Village departments or other agencies that utilize the fuel pumps in question.
- A key that can be used to access the Petro Vend control panel and allow the manipulation of switches placing the system on bypass and forego the transmission of fuel dispensing data is kept in the Garage Supervisor's desk. Again, this position was vacant from December 2013 thru January 2014.

### Recommendations

It is recommended that, based on the above noted review of the fuel dispensing process, the Village of Carol Stream reduce the risk of future fuel recording variances and allow accurate billing for the fuel dispensed by doing the following:

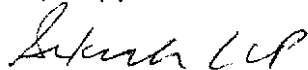
1. Run daily Veeder Root tapes to obtain volume readings for each of the underground storage tanks.
2. Immediately before or after running a Veeder Root tape, record a reading from each fuel pump's mechanical totalizer which keeps a running total of all fuel dispensed.
3. Veeder Root volume reports and totalizer readings should immediately reconcile with previous reports and totals.
4. Run a daily Petro Vend report querying the exact timeframe between daily Veeder Root/totalizer reports.
5. Record all report totals on a spreadsheet and identify variances. If variances exceed an acceptable amount allowing for temperature compensated volume increases or decreases a problem exists.
6. If a variance is noted, Village officials should immediately review security video for evidence of any transactions not recorded by Petro Vend. If unrecorded transactions occurred, identify the user and follow-up immediately.
7. If all transactions in the time period in question were recorded by Petro Vend, immediately contact Beacon for service and testing of the systems pulser(s). The Village should consider periodic preventive maintenance of Petro Vend if determined to be cost effective.
8. Monthly reports submitted to Finance would then be accurate, with a slight acceptable variance for temperature compensated volume.

Internal Controls Review – Fuel Usage – Village of Carol Stream

9. If instances of Petro Vend failing to accurately record fuel transactions are noticed, the Village should consider a new or updated system to record fuel dispensing.
10. Secure the bypass key. Use of the bypass key should be approved by the Public Works Director. A manual record of fuel transactions while Petro Vend is bypassed should be maintained and included on the monthly reports to Finance.
11. Establish a policy for decommissioning fobs that have not been used for fueling in a reasonable amount of time. Distribute this policy to all Village Departments and agencies that use the fuel pumps. Regularly review the list of active fobs to determine if fobs are not being used and decommission fobs according to the policy.
12. Consistently use the “volume” reading on the Veeder Root tapes when recording and tracking fuel usage. The temperature compensated fuel volume is slightly more or less than the volume reading. Consistent use of the volume reading should result in fewer variances over time.
13. Use a consistent method for determining the fuel price charged to user departments or other agencies. Currently, the Village bills at the rate of the last price paid for the fuel and this should remain consistent.

During the course of its review, Sikich did not uncover verifiable evidence suggesting abuse or unethical behavior. Based on its review, Sikich is not recommending further expansion of its engagement.


Very truly yours



Sikich LLP

By: James M. Sullivan, JD, CIG  
Director, Dispute Advisory Services

*Village of Carol Stream*  
**Interdepartmental Memo**

**TO:** Mayor and Trustees  
**FROM:** Joseph E. Breinig, Village Manager   
**DATE:** October 29, 2014  
**RE:** Electric Aggregation

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In 2012, the Village chose to place a referendum on the ballot asking residents if they favored aggregation of electric supply. On November 6, 2012 voters approved the referendum and on November 19, 2012 the Village Board approved a two year contract through February 2015 with First Energy Solutions to supply electricity to residences and small businesses in the community.

The initial 24 month contract with First Energy had a fixed price of 5.313 cents per kilowatt hour (kWh). At the time, the price residents were paying for electricity through ComEd was 8.82 cents per kWh. The savings were evident and residents realized tangible savings on their electric bills. The program has operated smoothly with few problems.

Electric aggregation allows communities to purchase electric supply as a commodity on the open market. As such it is subject to the market forces that affect pricing. The market today is vastly different than it was in 2012. Our consultant NIMEC has taken our demand to market twice with less than favorable outcomes. Attached you will find summaries of the solicitations on October 7 and October 20, 2014.

The current ComEd rate is 7.43 cents per kWh. In addition, ComEd's rates are adjusted monthly by a Purchased Electricity Adjustment (PEA) that is the difference between revenues from ComEd's monthly pricing and the actual cost of electricity. The charge or credit is .5 cents per kWh, permitting the rate to fluctuate between 6.93 cents per kWh and 7.93 cents per kWh. For October and November 2014 the total rate has been 6.93 cents per kWh.

The October 7 pricing is attached. Our current supplier First Energy Solutions has left the local market. The lowest prices appear to be from MidAmerican Energy, 7.16 cents per kWh for 27 months and 7.19 cents per kWh for 36 months. As noted previously, these prices are below the ComEd rate of 7.43 cents per kWh, but exceed the actual rate for October and November by .23 to .26 cents per kWh. For this reason staff asked NIMEC to take the Village's demand to market again. Because electricity is a commodity, these prices are no longer available.

Results of the October 20<sup>th</sup> pricing are also attached. MidAmerican Energy again appears to have the lowest prices. In each case, the price quoted exceeds the current price of 6.93 cents per kWh. Prices appear to have increased nominally since the October 7<sup>th</sup> price solicitation. Since there is no clear savings



for customers, staff has asked NIMEC to take the Village's demand to market a final time. An update will be provided at the November 3<sup>rd</sup> workshop.

Pricing is not the only thing that has changed in the two years since we began electric aggregation. Our agreement with First Energy Solutions contained a provision that guaranteed that our customers would pay no more than posted ComEd rate. In this current climate, providers will not agree to this provision. The supply pricing quoted by First Energy Solutions held firm throughout the term of our 1<sup>st</sup> agreement while other communities saw adjustments for the "polar vortex". Current agreements contain provisions allowing for adjustments due to regulatory events.

The latter provision could very likely lead to mid-term changes in pricing. Currently, transmission and capacity costs are bundled in the overall ComEd rate. Beginning in January 2015, transmission rates will be unbundled and this coming June capacity rates will also be unbundled. It is unclear how the electric industry supply will handle these actions, and what, if any impact the unbundling will have upon supply pricing. In addition, the State legislature is expected to consider ComEd's request for legislative relief from costs associated with its nuclear plants. This is expected to occur after the first of the new year and could also affect rates. In addition, new rules for aggregation programs are making their way through the State's regulatory process and may be approved next year. It is likely that any or all of these events could cause a change in prices mid-term.

The market is decidedly different than it was in 2012. The obvious savings that existed at that time are no longer present. Entering into a contract at this time is much more speculative and could result in customers paying more than if the Village chose not to aggregate supply in the current market. This situation makes idling the program attractive. Idling the aggregation program would allow residents to revert back to ComEd or choose their own electric utility supplier.

NIMEC has advised that it may be better for our aggregation program to be on a September renewal rather than the current February renewal. Revisiting aggregation prior to September 2015 would have several potential benefits. ComEd sets its rates annually in May with an adjustment in September. A September renewal would create an environment where ComEd's rates are set for a nine month period. (September through May). In addition, many of the regulatory events will have occurred prior to September 2015.

The time is at hand to move forward with a renewal or idle the program. In either case time needs to be available to notify customers of their new provider. Staff believes the risks of a renewal exceed the rewards. The Village should not place residents in a position where costs exceed what they would otherwise have been because of its aggregation program. For these reasons a number of communities have recently idled their aggregation programs which revert to ComEd as their electric supplier unless an alternate supplier is chosen by the resident. Staff recommends idling the aggregation program and monitoring the market into 2015 with an eye toward possible reentry if conditions become more favorable.

JEB/dk

Attachments



## VILLAGE OF CAROL STREAM

7 October 2014

	Fixed Rate: 1, 2, 3 yr	Escape Clause	Early Term Fee	Ownership	Credit Rtg Moody/S&P	IL Aggregations (# of A/Cs)	Biz Same Rate	Power Sources	Changes to Agreement	New A/Cs, same rate	Informative ltr to non- eligible	2nd mailing, same rate
ComEd rate:	7.43¢ +/-0.5											
Constellation	N/A	Ind'l	\$0	Wholly owned subsd'y, Exelon (NYSE-EXC)	Baa2/BBB	(50) 150,000	Yes	Coal: 47% Nuclear: 31% Nat Gas: 18% Other: 4%	Med	Yes	Yes	Yes
Dynegy (steps down after 1 yr)	1: 7.460 2: 7.374 (7.46/7.288) 3: 7.453 (7.46/7.45)	Ind'l	\$0	(NYSE-DYN)	B2/B	(17) 10,000 (237) 400,000	Yes	Coal: 63% Nuclear: 19% Nat Gas: 10% Other: 8%	Low	Yes	Yes, after initial opt- out period	Yes
Integrys*	1: 7.643 2: 7.345 3: 7.392	Ind'l	\$0	Integrys Energy Group (NYSE-TEG)	Baa1/A-	(69) 1,030,000	Yes	Coal: 55% Nuclear: 29% Nat Gas: 12% Other: 4%	Low	Res'l: Yes Comm'l: No	No	Yes
MidAmerican Energy*	27 mos: 7.16 3: 7.19	Ind'l	\$0	Berkshire Hathaway Energy	89% owned by Berkshire Hathaway: A-/A3	(17) # accounts TBD	Yes	Coal: 45% Nat Gas: 19% Wind: 30% Other: 6%	Low	Yes	Yes	Yes
MC Squared*	1: 7.800 2: 7.599 3: 7.970	Ind'l	\$0	Parent: DPL Bought by AES (NYSE)	Parent: Ba3/BB-	(30) 140,000	Yes	Coal: 47% Nuclear: 35% Nat Gas: 14% Other: 4%	High	Yes	No	Yes
Verde	N/A	Ind'l	\$0	Privately owned; in energy field three yrs	Guarantor: Shell Energy	(34) 150,000	Yes	Coal: 44% Nuclear: 35% Nat Gas: 17% Other: 4%	Low	Yes	Yes	Yes

\* Price is indicative only; not executable



## VILLAGE OF CAROL STREAM

20 October 2014

	Fixed Rate: 12, 19, 24, 31 and 36 months	Escape Clause	Early Term Fee	Ownership	Credit Rtg Moody/S&P	IL Aggregations (# of A/Cs)	Biz Same Rate	Power Sources	Changes to Agreement	New A/Cs, same rate	Informative ltr to non- eligible	2nd mailing, same rate
ComEd rate:	7.43¢ +/-0.5											
Constellation	12: 7.71 24: 7.67 36: 7.88	Ind'l	\$0	Wholly owned subs'd'y, Exelon (NYSE-EXC)	Baa2/BBB	(50) 150,000	Yes	Coal: 47% Nuclear: 31% Nat Gas: 18% Other: 4%	Med	Yes	Yes	Yes
Dynegy Steps down after 12 mos	12: 7.495 24: 7.417 (7.495/7.339) 36: 7.491 (7.495/7.489)	Ind'l	\$0	(NYSE-DYN)	B2/B	(17) 10,000 (237) 400,000	Yes	Coal: 63% Nuclear: 19% Nat Gas: 10% Other: 8%	Low	Yes	Yes, after initial opt- out period	Yes
Integrys*	N/A	Ind'l	\$0	Integrys Energy Group (NYSE-TEG)	Baa1/A-	(69) 1,030,000	Yes	Coal: 55% Nuclear: 29% Nat Gas: 12% Other: 4%	Low	Res'l: Yes Comm'l: No	No	Yes
MidAmerican Energy	12: 7.52 19: 7.40 24: 7.19 31: 7.19 36: 7.24	Ind'l	\$0	Berkshire Hathaway Energy	89% owned by Berkshire Hathaway: A-/A3	(17) # accounts TBD	Yes	Coal: 45% Nat Gas: 19% Wind: 30% Other: 6%	Low	Yes	Yes	Yes
MC Squared*	12: 7.794 19: 7.743 24: 7.598 31: 7.655 36: 7.968	Ind'l	\$0	Parent: DPL Bought by AES (NYSE)	Parent: Ba3/BB-	(30) 140,000	Yes	Coal: 47% Nuclear: 35% Nat Gas: 14% Other: 4%	High	Yes	No	Yes
Verde Steps down after 24 mos	12: 7.757 24: 7.462 36: 7.355 (7.462/7.141)	Ind'l	\$0	Privately owned; in energy field three yrs	Guarantor: Shell Energy	(34) 150,000	Yes	Coal: 44% Nuclear: 35% Nat Gas: 17% Other: 4%	Low	Yes	Yes	Yes

\* Price is indicative only; not executable