



**AGENDA
CITY OF HARRISONVILLE
BOARD OF ALDERMEN
WORK SESSION
CITY HALL
MARCH 7, 2016
6:00 PM**

- 1. Call to Order & Pledge of Allegiance**
- 2. Present**
- 3. Discussion Items**
 - A. Capacity Recovery Fees Amendment**
Posted on City Hall Bulletin Board this 3rd day of March 2016

Kim Hubbard, City Clerk

The Board of Aldermen Work Session is open to the public but is not a meeting of the public



TO: Board of Aldermen
FROM: Rick Deluca, Director
DATE: March 2, 2016
SUBJECT: Capacity Recovery Fees Amendment

Type of Item: *Presentation*

The Board of Aldermen has directed Staff to review the Capacity Investment Recovery Fees. The attached information will be presented by the respective utility at the March 7 work session.

I have attached 3 files for your review. The files/documents are separated to minimize confusion.

CAPACITY RECOVERY FEES ADOPTED 2010 ORDINANCE WITH 2015 FEES.

This file includes the Capacity Recovery Fees ordinance that was adopted in 2010 and the current 2015 fees. This is what is in place at this time.

CWWS CAPACITY RECOVERY FEES STAFF REPORT.

This file has two options that would address the CWWS Fees.

Option 1. The first options would keep the existing EDU Fee Calculation method and only modify the fee schedule. Both the 2015 and 2016 Capacity Fee Schedules are attached.

Option 2. The second option would be a new method of fee calculation based on the size of the meter. This will include deleting sections 700.800 and 700.810 of the City Code and replacing it in the draft ordinance. The attached ordinance and draft fee schedule based on meter size is attached.

ELECTRIC CAPACITY RECOVERY FEES STAFF REPORT.

The attached draft would use the existing EDU method for calculating fees...with a few modifications. The portion of the ordinance to be amended is section 700.820 B. The draft ordinance has been red-lined so you can see what has been removed, what has been changed and what remains. Changes in the Electric Supply Capacity Fees have also been included.

A. Discussion Item (ID # 2136)

Capacity Recovery Fees Amendment

Attachments:

CWWS CAPACITY RECOVERY FEES STAFF REPORT March 7 - BOA Worksession 3-7-16
(PDF)

ELECTRIC CAPACITY RECOVERY FEES STAFF REPORT March 7 - BOA Worksession 3-
7-16 (PDF)

CAPACITY RECOVERY FEES ADOPTED 2010 ORDINANCE WITH 2015 FEES - BOA
Worksession 3-7-16 (PDF)

M E M O R A N D U M

TO Mayor Hasek and Board of Aldermen

FROM Rick DeLuca, Director of Community Development

DATE March 1, 2016

SUBJECT Capacity Investment Recovery Plan – CWWS

Type of Item: Discussion

OPTION 1. Staff will present an option for the Capacity Investment Recovery Fees for the CWWS utilities that would keep the existing EDU Fee Calculation method intact with modifications to the fee schedule. Please see both the 2015 and 2016 Capacity Fee Schedules for information on option 1.

OPTION 2. A second option would be a new method of fee calculation based on the size of the meter. This will include deleting sections 700.800 and 700.810 of the City Code and replacing it in the draft ordinance. Section 700.800 of the draft ordinance would cover the water utility. Section 700.810 would cover the sewer utility.

The attached ordinance and draft fee schedule based on meter size is attached. This method is widely used and is a simple and straight-forward method for determining fees.

Potable Water Treatment Capacity Connection Fee Calculation

Last Updated:

2/1/2015

Item	Year of Construction	Actual Cost	CCI Inflation Factor	Cost in 2014 Dollars
Construction Cost Index	2014		10,910.95	
Land - Water Plant	1970	\$54,809.67	685%	\$375,172.88
Lake Harrisonville Reservoir	1971	\$1,403,790.06	607%	\$8,523,474.21
Water Plant	1971	\$340,717.27	607%	\$2,068,752.98
Water Plant	1980	\$906,907.64	307%	\$2,785,943.04
Spillway Enhancements at Lake Harrisonville- installed concrete weir in grass spillway	1990	\$173,407.21	230%	\$399,206.96
Water Plant Upgrade	1992	\$274,619.56	222%	\$608,491.93
Water Plant Upgrade	1993	\$541,394.42	213%	\$1,153,197.52
New Clear Well	2000	\$354,471.65	175%	\$618,745.34
Survey and Design for Line Connecting to KC				
Supply near Pleasant Hill	2009	\$272,738.26	112%	\$305,344.60
Right to Buy 5 MGD from KC	2009	\$3,159,184.00	112%	\$3,536,870.03
Back Up Generator at Plant	2011	\$116,150.00	104%	\$120,757.76
VFD Installed at Raw Water Intake	2012	\$54,719.00	102%	\$56,024.92
Lagoon Water Recovery Pump	2012	\$40,643.00	102%	\$41,612.98

 \$7,693,551.74

A Investment in Water Production Capacity in Current Dollars	<u>\$20,593,595.15</u>
B Sustainable Water Production Capacity =	2,100,000
(Maximum Production Capacity is 2,400,000 gal/day)	
C Value of 1 Gallon of Capacity =	\$9.81
D Harrisonville Average Family size (2000 Census) =	3.05
E * Average Day Water Consumption Per Person Per Day in Harrisonville =	65
F Water Consumption Per Family Per Day =	198.25
G Equivalent Dwelling Unit (EDU) Connection Fee =	\$1,944.13
	2014 Fee \$875

* Calculation for Average Consumption Per Person Per Day for Harrisonville (for the period of 1/07 to 12/09)

1 Average Number of Residential Accounts =	4,543
2 Total Gallons of Residential Water Consumption =	980,918,100
3 Harrisonville Average Family size (2000 Census) =	3.05
4 Days of Consumption from 1/1/07 to 12/31/09 =	1,095
5 Average Consumption Per Person Per Day =	65 = (2/4) / (1*3)

Sanitary Sewer Treatment Capacity Connection Fee Calculation

Last Updated:

2/1/2015

Item	Year of Construction	Actual Cost	CCI Inflation Factor	Cost in 2014 Dollars
Construction Cost Index	2014	10,910.95		
Land for Sewer Plant	1968	\$18,425.00	979%	\$180,299.78
New Waste Water Plant	1971	\$739,119.00	608%	\$4,495,256.66
Packaged Lift Station- replaced with Lift Station #2 & Wet Well in 2004 (Est 15% of original plant value)	1971	-\$110,867.85	608%	-\$674,288.50
Course bubble difusers, clarifier mechanics & grit removal systems replaced as part of 2011 Plant Upgrades (Est 20% of original plant value)	1971	-\$147,823.80	608%	-\$899,051.33
Original blowers replaced with high efficiency blowers in 2012 (Est 5% of original plant value)	1971	-\$36,955.95	608%	-\$224,762.83
Plant Expansion	1989	\$3,813,620.00	233%	\$8,894,740.17
Plant Upgrades	1989	\$82,194.00	233%	\$191,706.11
Lift Station #2 & Wet Well (at WWTP)	2004	\$1,379,150.00	138%	\$1,906,986.11
Add Extraneous Flow Basin	2004	\$1,281,518.00	138%	\$1,771,987.84
Facility Study	2008	\$56,400.00	118%	\$66,763.61
Engineering Design	2009	\$500,000.00	112%	\$559,775.88
Geotechnical Design	2009	\$11,000.00	112%	\$12,315.07
Bidding Cost	2009	\$19,730.00	112%	\$22,088.76
Construction Phase Engineering	2011	\$160,230.00	104%	\$166,586.45
Special Inspections/Testing	2011	\$46,342.00	104%	\$48,180.42
On Site Inspector	2011	\$141,561.00	104%	\$147,176.84
Plant Expansion & Upgrades with SCADA	2011	\$6,271,818.00	104%	\$6,520,626.05
Install VFD, High Efficiency Blowers, LED Lighting	2012	\$389,198.20	102%	\$398,486.77

\$14,614,657.60

A Investment in Sewer Treatment Capacity in Current Dollars	<u>\$23,584,873.87</u>
B Designed Average Daily Treatment Capacity with Ammonia Treatment = (Peak treatment capacity 8 MGD)	2,400,000
C Value of 1 Gallon of Capacity =	\$9.83
D Harrisonville Average Family size (2000 Census) =	3.05
E Average Day Waste Water Contributions Per Person = (MDNR Standard- MO 10 CSR 20-8.120 (5)	100
F Waste Water Contributions Per Family Per Day =	305
G Equivalent Dwelling Unit (EDU) Connection Fee =	\$2,997.24
	2014 Fee \$1,349

Potable Water Treatment Capacity Connection Fee Calculation

Last Updated: 2016

Item	Year of Construction	Actual Cost	Value after Depreciation	CCI Inflation Factor	CCI Adjustment Factor	Adjusted 2015 Dollars	Cost Allocated to New Growth
Construction Cost Index	2015			10,948.00			68.75%
Land - Water Plant	1970	\$54,809.67	\$54,809.67	1594	6.87	\$ 376,447	\$258,807.20
HUD Grant for Preliminary Design of Lake	1969	-\$17,785.00	\$0.00	1348	8.12	\$ -	
Lake Harrisonville Reservoir Preliminary Design	1968	\$24,785.00	\$0.00	1115	9.82	\$ -	
Lake Harrisonville Reservoir Survey	1970	\$13,500.00	\$0.00	1594	6.87	\$ -	
Land	1971	\$1,429,745.00	\$1,429,745.00	1797	6.09	\$ 8,710,544	\$5,988,499.26
Dam & Embankment	1970	\$431,306.20	\$0.00	1594	6.87	\$ -	
Raw Water Transmission Line	1970	\$183,029.00	\$18,302.90	1594	6.87	\$ 125,709	\$86,424.94
Lake Harrisonville Pump Station	1970	\$71,610.00	\$0.00	1594	6.87	\$ -	
Design of Water Plant	1977	\$51,538.67	\$0.00	2891	3.79	\$ -	
Raw Water Transmission Line (N Lake to WP)	1977	\$124,993.00	\$31,248.25	2891	3.79	\$ 118,341	\$81,359.66
Water Plant Construction	1978	\$828,596.00	\$0.00	3040	3.60	\$ -	
Spillway Enhancements at Lake Harrisonville- installed concrete weir in grass spillway	1990	\$173,407.21	\$0.00	4739	2.31	\$ -	
Water Plant Upgrade	1992	\$274,619.56	\$0.00	4924	2.22	\$ -	
Water Plant Upgrade	1993	\$541,394.42	\$0.00	5306	2.06	\$ -	
New Clear Well	2000	\$354,471.65	\$202,555.23	6251	1.75	\$ 354,769	\$243,903.94
Back Up Generator at Plant	2011	\$116,150.00	\$104,535.00	10495	1.04	\$ 109,051	\$74,972.59

EDU

A	Investment in Water Production Capacity in Current Dollars		\$ 9,794,862	\$6,733,967.60	New Growth
B	Independence WTP Max Day Water Production Capacity =		750,000	gallons	
C	Jefferson Parkway WTP Max day Water Production Capacity =		2,400,000	gallons	
D	New Capacity		#####	gallons	
	New Capacity Project Percentage		68.75%		
C	Value of 1 Gallon of Additional Capacity =			\$4.08	
D	Harrisonville Average Family size (2000 Census) =	3.05		3.05	
E	MDNR 10 CSR 20-8 Design Guidelines Table 1	75		75	gpd/person
F	Water Consumption Per Family Per Day =	228.75 = D*E		228.75000	1 EDU
G	Equivalent Dwelling Unit (EDU) Connection Fee =				
		2016		\$933.57	100%
				\$420	45%

Sanitary Sewer Treatment Capacity Connection Fee Calculation

Last Updated: 2016

#REF!

Item	Year of Construction	Actual Cost	2015 Depreciated Value	Cci Inflation Factor	CCI Inflation Factor	Cost in 2015 Dollars	New Capacity Upgrade
Construction Cost Index	2015	10,948.00					58%
Land for Sewer Plant	1968	\$18,425.00	\$18,425.00	1115	982%	\$180,912.02	
New Waste Water Plant	1971	\$739,119.00	\$0.00	1797	609%	\$4,502,990.99	
Undefined Waste Water Plant Work	1971	\$204,786.18	\$0.00	1797	609%	\$1,247,634.44	
Missouri Water Pollution Board Sewage Treatment Works Grant (Ord 856)	1971	-\$304,250.00	\$0.00	1797	-609%	\$1,853,605.45	
HUD Sewage Treatment Works Grant (Ord 857)	1971	-\$669,350.00	\$0.00	1797	-609%	\$4,077,932.00	
Plant Expansion	1989	\$3,813,620.00	\$1,346,351.24	4678.08	234%	\$8,924,943.78	\$5,206,187.46
Plant Upgrades	1989	\$82,194.00	\$27,911.73	4678.08	234%	\$192,357.09	\$112,207.66
Lift Station #2 & Wet Well (at WWTP)	2004	\$1,379,150.00	\$1,082,397.91	7490.90	139%	\$1,913,461.61	\$1,116,179.56
Add Extraneous Flow Basin	2004	\$1,281,518.00	\$999,584.04	7490.90	139%	\$1,778,004.93	\$1,037,163.61
WWTP Upgrades	2012	\$3,973,214.66	\$3,624,554.66	10656.62	103%	\$4,081,852.79	\$2,381,067.19
a. Engineering Design	2009	\$500,000.00					\$3M Grant deducted
b. Geotechnical Design	2009	\$11,000.00					
c. Bidding Cost	2009	\$19,730.00					
d. Special Inspections/Testing	2011	\$46,342.00					
e. On Site Inspector	2011	\$141,561.00					
f. Plant Expansion & Upgrades with SCAI	2011	\$6,271,818.00					
Construction Phase Engineering	2011	\$160,230.00		10494.62	104%	\$167,152.13	\$97,504.85
		\$17,508,877.84					
A	Investment in Sewer Treatment Capacity in Current Dollars					<u>\$28,920,847.22</u>	\$9,950,310.33
B	1971 Designed Average Daily Treatment Capacity =					2,400,000 Gallons Per Day	
	Pre-1971 Waste Water Capacity					1,000,000 Gallons Per Day	
	New Capacity					1,400,000 Gallons Per Day	
C	Value of 1 Gallon of Capacity =					\$7.11 = A/B	58% New Capacity
D	Harrisonville Average Family size (2000 Census) =					3.05	
E	Average Day Waste Water Contributions Per Person =					100	
	(MDNR Standard- MO 10 CSR 20-8.120 (5)						
F	Waste Water Contributions Per Family Per Day =					228.75 = D*E	
G	Equivalent Dwelling Unit (EDU) Connection Fee =				2016	\$1,625.81 = F*C 100%	
						\$732	45%

DRAFT**COUNCIL BILL _____****ORDINANCE NO. _____****AN ORDINANCE TO AMEND CHAPTER 700, SECTION 700.800 AND SECTION 700.810 OF THE UTILITIES ORDINANCE REGARDING THE CAPACITY INVESTMENT RECOVERY PLAN FOR THE WATER AND SEWER UTILITIES OF THE CITY OF HARRISONVILLE, MISSOURI.**

WHEREAS the City of Harrisonville Board of Alderman, after careful and due deliberation, concludes that amending the Utilities Regulations as set forth below would be in the best interest of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMAN OF THE CITY OF HARRISONVILLE, MISSOURI, AS FOLLOWS:

Section 1: That Section 700.800 (Equivalent Dwelling Units and Connection Fees) of the Utilities Ordinance of the City of Harrisonville, Missouri shall be amended by deleting Section 700.800 in its entirety and replacing it with a new Section 700.800 as follows:

SECTION 700.800. Water Tap Fees

The water tap fees to be charged by the City of Harrisonville for water taps or connections to City owned mains shall be as follows:

- A. *Authority.* Authority in the creation of the water tap fee, the City is exercising its local authority including its Police powers pursuant to Chapters 79, 88 and 91, RSMo. as amended. The aforementioned provisions authorize and require the City to provide and finance water service facilities and to provide for the health, safety and general welfare of the City.
- B. *Intent.*
 - 1. It is the intent of this Subsection to establish a water system user's fee imposed upon new connections to the City's water system and not to levy a "tax" or fee as such term is used in Article X, Section 22 of the Missouri Constitution.
 - 2. It is the intent of this Subsection to impose a water tap fee, payable prior to approval of a new water service connection, in an amount based upon the demand for water attributable to the new connection cost of constructing water service facilities needed to serve the new connection.

- C. *Calculation of the water tap fee.* The City shall calculate the water tap fee due for a new application for service by determining the capacity multiplier of the size and type meter to be used for the new connection, relative to a 5/8 inch x 3/4 inch residential displacement type meter.
- D. *Approval of Fees.* Water tap fees shall be approved by the Governing Body by resolution and listed in the Schedule of Fees and Charges maintained in the City Clerk's office.
- E. *Administration of water tap fees.*
 - 1. *Collection of water tap fee.* Water tap fees calculated and imposed pursuant to this Subsection shall be collected by the City prior to approving any application for service.
 - 2. *Transfer of funds to the Finance Department.* Water tap fees shall be transferred from the collecting agency to the Finance Department for placement in the Water Tap Fee Fund Account that has been established pursuant to Subparagraph (c) below.
 - 3. *Water tap fund account established.*
 - a. There is hereby established a separate Water Tap Fee Fund Account for the City.
 - b. Funds withdrawn from the Fund Account must be used solely in accordance with the provisions of Subparagraph (d) of this Subsection.
 - c. Any funds not immediately necessary for expenditure shall be invested in interest-bearing accounts. All interest earned shall be retained in the Fund Account.
 - 4. *Use of funds collected.* The funds collected by reason of this Subsection shall be used exclusively for the purpose of offsetting actual costs incurred by the City in making a tap and undertaking water facilities projects (including master planning, engineering, legal, administration, construction inspection, construction of facilities, land acquisition and testing) or for financing directly as a pledge against bonds, revenue certificates and other obligations of indebtedness, the costs of water facilities projects.
 - 5. Water tap fees shall be paid in connection with the issuance of each building permit.
 - 6. A review of this Section and water tap fees will be completed annually by the City Administrator with recommendations concerning changes to this Section or the water tap fee forwarded to the Board of Aldermen.

Section 2: That Section 700.810 (EDU Ratios to Be Used for Computation of Connection Fees) of the Utilities Ordinance of the City of Harrisonville, Missouri shall be amended by deleting Section 700.810 in its entirety and replacing it with a new Section 700.810 as follows:

SECTION 700.810. Sewer Connection Fees

The sewer connection fees to be charged by the City of Harrisonville for sewer connections or connections to City-owned sewers shall be as follows:

- A. *Authority.* Authority in the creation of the sewer connection fee, the City is exercising its local authority including its Police powers pursuant to Chapters 79, 88 and 91, RSMo. as amended. The aforementioned provisions authorize and require the City to provide and finance sanitary service facilities and to provide for the health, safety and general welfare of the City.
- B. *Intent.*
 - 1. It is the intent of this Section to establish a sewer system user's fee imposed upon new connections to the City's sewer system and not to levy a "tax" or fee as such term is used in Article X, Section 22 of the Missouri Constitution.
 - 2. It is the intent of this Section to impose a sewer connection fee, payable prior to approval of a new sewer service connection.
- C. *Sewer connection fees.*
 - 1. There shall be two (2) classes of building sewer connection permits.
 - (a) Residential (single-family and multiple-family).
 - (b) Commercial and industrial.
 - 2. Sewer connection fees will be charged as follows:
 - (1) Sewer connection fees shall be approved by the Governing Body by resolution and listed in the Schedule of Fees and Charges maintained in the City Clerk's office. (2) Applicant will be required to provide the City with a listing of industrial wastes proposed to be discharged into the City's sewer system prior to applying for a building permit.
- D. *Administration of sewer connection fees.*
 - 1. *Collection of sewer connection fee.* Sewer connection fees imposed pursuant to this Section shall be collected by the City prior to approving any application for service.

2. *Transfer of funds to the Finance Department.* Sewer connection fees shall be transferred from the collecting agency to the Finance Department for placement in the Water and Sewer Enterprise Fund.
3. *Use of funds collected.* The funds collected by reason of this Section shall be used exclusively for the purpose of:
 - a. Offsetting actual connection costs incurred by the City,
 - b. Undertaking sewer facilities projects including system master planning, engineering, legal, administration, construction inspection, construction of facilities, land acquisition and testing,
 - c. Operation and maintenance, including infiltration and inflow remediation, and
 - d. For financing directly as a pledge against bonds, revenue certificates, grant match and other obligations of indebtedness.
4. A review of this Section and sewer connection fees will be completed annually by the City Administrator with recommendations concerning changes to this Section or the sewer connection fee forwarded to the Board of Aldermen.

Section 3. Severability. If any section, subsection, sentence, clause, phrase, or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

Section 4: Effective Date. That this order shall become effective immediately upon its passage and approval.

Vote taken as follows:

AYES:

NAYS:

ABSENT:

ABSTAIN:

READ FOR THE FIRST TIME BY TITLE ONLY ON THE ____ DAY OF MARCH 2016 AND WAS READ FOR A SECOND TIME, AS AMENDED, BY TITLE ONLY ON THE ____ DAY OF MARCH 2016 AND PASSED BY THE BOARD OF ALDERMEN THIS ____ DAY OF MARCH 2016.

Brian Hasek, Mayor and Ex-Officio
Chairman of the Board of Aldermen

ATTEST:

Kim Hubbard, City Clerk

APPROVED by the Mayor this ____ day of March 2016.

2016

WATER TAP FEE BY METER SIZE				SEWER TAP FEE BY WATER METER SIZE			
Meter Size	100% FEE		45% FEE	100% FEE		45% FEE	
5/8 Residential Min	\$934		\$420	\$1,626		\$732	
≤3/4 inch Commercial Min	\$1,400		\$630	\$2,439		\$1,097	
1 inch	2,334		\$1,050	\$4,065		\$1,829	
1-1/2 inch	4,668		\$2,101	\$8,129		\$3,658	
2 inch	7,469		\$3,361	\$13,006		\$5,853	
3 inch	14,004		\$6,302	\$24,387		\$10,974	
4 inch	23,339		\$10,503	\$40,645		\$18,290	
Over 4" shall be determined by the Public Works Director							

M E M O R A N D U M

TO Mayor Hasek and Board of Aldermen

FROM Rick DeLuca, Director of Community Development

DATE March 1, 2016

SUBJECT Capacity Investment Recovery Plan – Electric Utility

Type of Item: Discussion

Staff has presented an option for the Capacity Investment Recovery Fees for the electric utility that would keep the existing EDU method intact with a few modifications. The portion of the ordinance to be amended is section 700.820 B. The draft ordinance has been red-lined so you can see what has been removed, what has been changed and what remains. The original 2010 Capacity Recovery Fee ordinance (with 2015 fees) has also been attached for your information.

The proposed changes are as follows:

- Reduce the amount that a developer/builder would pay from 45% to 25%.
- Increase the Cities share from 55% to 75%.
- Remove a couple of inaccurate statements regarding electric usage.
- Add a statement regarding large three phase electric customers and special electric rates.
- Changes in the Electric Supply Capacity Fees have also been attached. The 2016 fees are proposed. The 2015 fees have been included for your information.

DRAFT**COUNCIL BILL _____****ORDINANCE NO. _____****AN ORDINANCE TO AMEND CHAPTER 700, SECTION 700.820 OF THE UTILITIES ORDINANCE REGARDING THE CAPACITY INVESTMENT RECOVERY PLAN FOR THE ELECTRIC UTILITY OF THE CITY OF HARRISONVILLE, MISSOURI.**

WHEREAS the City of Harrisonville Board of Alderman, after careful and due deliberation, concludes that amending the Utilities Regulations as set forth below would be in the best interest of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMAN OF THE CITY OF HARRISONVILLE, MISSOURI, AS FOLLOWS:

Section 1: That Section 700.820 (Electric Connection Fees of the Utilities Ordinance of the City of Harrisonville, Missouri shall be amended by deleting subsection 700.820 B in its entirety and replacing it with a new subsection 700.820 B as follows:

B. Computation and Approval of Connection Fee. Electric fees shall be approved by the Board of Aldermen by resolution and listed in the Schedule of Fees.

1. *Three phase electrical service.* The connection fee for a three phase site shall be calculated by multiplying the KVA capacity of the transformer requested for the site by the current value of a KVA multiplied by twenty-five percent (25%) ~~forty-five percent (45%)~~. The City of Harrisonville has elected to waive seventy-five percent (75%) ~~fifty-five percent (55%)~~ of the electric connection fee for three phase customers. The waiver is considered the City's investment in promoting economic development. ~~Three-phase customers consume more electricity than single phase customers thereby returning the City's investment in capacity in a shorter time.~~ Fees for larger three phase customers will be evaluated on an individual basis. If a large customer would have a positive impact on the City of Harrisonville rate structure, a recommendation may be presented to the Mayor and Board of Aldermen for consideration of a special electric rate. ~~If service is provided outside of the City limits, the connection fee shall be one hundred twenty five percent (125%) of the undiscounted connection fee calculated.~~

2. *Single phase electrical service.* The connection fee for a single phase site shall be calculated by multiplying the KVA capacity of the transformer requested for the site by the current value of a KVA multiplied by twenty-five percent (25%) of the electric connection fee for single phase customers. The waiver is considered the City's investment in promoting economic development, and dividing that value by three (3). ~~This reflects the fact that single phase users only consume a third of the KVA capacity as three phase users. If service is provided outside of the City limits, the fee shall be one hundred twenty five percent (125%) of the connection fee calculated.~~

Section 2. Severability. If any section, subsection, sentence, clause, phrase, or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

Section 3: Effective Date. That this order shall become effective immediately upon its passage and approval.

Vote taken as follows:

AYES:

NAYS:

ABSENT:

ABSTAIN:

READ FOR THE FIRST TIME BY TITLE ONLY ON THE ____ DAY OF MARCH 2016 AND WAS READ FOR A SECOND TIME, AS AMENDED, BY TITLE ONLY ON THE ____ DAY OF MARCH 2016 AND PASSED BY THE BOARD OF ALDERMEN THIS ____ DAY OF MARCH 2016.

Brian Hasek, Mayor and Ex-Officio
Chairman of the Board of Aldermen

ATTEST:

Kim Hubbard, City Clerk

APPROVED by the Mayor this ____ day of March 2016.

Electric Supply Capacity Fee Calculation

Last Updated: 1/26/2016

Item	Cost in 2016 Dollars
Cost of construction for a new 20MVA substation with 4 circuit capacity 69/12.47KV	\$2,000,000

A Total 2016 Price For the New Substation	\$2,000,000.00
B Additional Available Electric Supply Capacity	10,000 KVA
C Value of a KVA in Three Phase	\$200.00 = A/B
D Value of a KVA in Single Phase	\$66.67 = A/B/3

Schedule of Capacity Fees			Electric Impact Fee	25% of Fee	Monthly Payment based on a 5 Year Amortization
Transformer Capacity & Type					
Volts	Phases	KVA			
277/480 *	3	2,500	\$ 500,000	\$ 125,000	\$ 2,083
120/208 *	3	2,500	\$ 500,000	\$ 125,000	\$ 2,083
277/480 *	3	2,000	\$ 400,000	\$ 100,000	\$ 1,667
277/480 *	3	1,500	\$ 300,000	\$ 75,000	\$ 1,250
120/208 *	3	1,500	\$ 300,000	\$ 75,000	\$ 1,250
277/480 *	3	1,000	\$ 200,000	\$ 50,000	\$ 833
120/208 *	3	1,000	\$ 200,000	\$ 50,000	\$ 833
277/480 *	3	750	\$ 150,000	\$ 37,500	\$ 625
120/208 *	3	750	\$ 150,000	\$ 37,500	\$ 625
277/480 *	3	500	\$ 100,000	\$ 25,000	\$ 417
120/208 *	3	500	\$ 100,000	\$ 25,000	\$ 417
277/480	3	300	\$ 60,000	\$ 15,000	\$ 250
120/208	3	300	\$ 60,000	\$ 15,000	\$ 250
120/208 overhead bank	3	150	\$ 30,000	\$ 7,500	\$ 125
120/208 overhead bank	3	112.5	\$ 22,500	\$ 5,625	\$ 94
120/208 overhead bank	3	75.0	\$ 15,000	\$ 3,750	\$ 63
120/240	1	100	\$ 6,667	\$ 1,667	
120/240	1	75	\$ 5,000	\$ 1,250	
120/240	1	50	\$ 3,333	\$ 833	
120/240	1	25	\$ 1,667	\$ 417	
120/240	1	50	\$ 833	\$ 208	
4 HOMES					
120/240	1	25	\$ 556	\$ 139	
3 HOMES					
Average for Single Family Home			\$ 694		

* Impact fees for this size of electrical customer and larger will be evaluated on an individual basis. 24/5 or 24/7 hours of operation could have a positive impact on the City of Harrisonville's rate structure with the current power provider. Recommendations may be presented to the Mayor and Board of Aldermen for consideration of special rates.

Electric Supply Capacity Connection Fee Calculation

Last Updated:

2/1/2015

Item	Year of Construction	Actual Cost	CCI Inflation Factor	Cost in 2014 Dollars	
Construction Cost Index	2014		10,910.95		
North Substation	1971	\$521,992.57	607%	\$3,169,412.82	\$950,823.85
North Substation transformer, OCB's, Circuit switcher, and switches were retired in 2013 (Estimate that 75% of the 1971 equipment was replaced)	1971	-\$391,494.43	607%	-\$2,377,059.61	-\$0.7500
Royal St. Substation Land	1997	\$46,956.98	187%	\$87,910.69	
Royal St. Substation	1998	\$812,254.38	184%	\$1,490,973.70	
South Substation	2002	\$1,016,100.63	165%	\$1,672,462.96	
69 KV Transmission Line	2002	\$1,038,634.30	165%	\$1,709,552.52	
North Substation Re-build; new transformer, breakers, switches, circuit switcher, and controls installed. No change in KVA capacity.	2013	\$1,200,000.00	100%	\$1,201,605.67	
		\$4,244,444.43			
				\$6,954,858.75	

A Investment in Electric Supply Capacity in Current Dollars

B Electric Supply Capacity =

(Three 20,000 KVA Substations)

C Value of a KVA in Three Phase

D Value of a KVA in Single Phase

60,000 KVA

\$115.91 = A/B

\$38.64 = A/B/3

Schedule of Connection Fees			Electric Connection Fee	45% of Fee	Monthly Payment based on a 5 Year Amortization
Transformer Capacity & Type					
Volts	Phases	KVA			
277/480	3	2,500	\$ 289,786	\$ 130,404	\$ 2,173
120/208	3	2,500	\$ 289,786	\$ 130,404	\$ 2,173
277/480	3	2,000	\$ 231,829	\$ 104,323	\$ 1,739
277/480	3	1,500	\$ 173,871	\$ 78,242	\$ 1,304
120/208	3	1,500	\$ 173,871	\$ 78,242	\$ 1,304
277/480	3	1,000	\$ 115,914	\$ 52,161	\$ 869
120/208	3	1,000	\$ 115,914	\$ 52,161	\$ 869
277/480	3	750	\$ 86,936	\$ 39,121	\$ 652
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120/208	3	112.5	\$ 13,040	\$ 5,868	\$ 98
120/240	1	100	\$ 3,864		
120/240	1	75	\$ 2,898		
120/240	1	50	\$ 1,932		
120/240	1	50	\$ 483		
4 HOMES					
120/240	1	25	\$ 322		
3 HOMES					
120/240	1	15	\$ 290		
2 HOMES					
Average for Single Family Home			\$ 365		

COUNCIL BILL NO. 033

ORDINANCE NO. 3132 (010-10)

AN ORDINANCE TO AMEND THE CODE OF ORDINANCES OF THE CITY OF HARRISONVILLE, MISSOURI BY AMENDING TITLE VII, CHAPTER 700, BY ENACTING A NEW ARTICLE IV ENTITLED CAPACITY INVESTMENT RECOVER PLAN; ENACTING A NEW DIVISION 1 ENTITLED WATER & SEWER UTILITIES; ENACTING A NEW SECTION 700.800 ENTITLED EQUIVALENT DWELLING UNITS AND CONNECTION FEES; ENACTING A NEW SECTION 700.810 ENTITLED EDU RATIOS TO BE USED FOR COMPUTATION OF CONNECTION FEES; ENACTING A NEW DIVISION 2 ENTITLED ELECTRIC UTILITY; ENACTING NEW SECTION 700.820 ENTITLED ELECTRIC CONNECTION FEES

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMAN OF THE CITY OF HARRISONVILLE, MISSOURI, AS FOLLOWS:

Section 1: That Chapter 700, Utilities of the Code of Ordinances of the City of Harrisonville, Missouri, shall establish a new Article IV enacted as follows:

TITLE VII. PUBLIC UTILITIES

CHAPTER 700: UTILITIES

ARTICLE IV. CAPACITY INVESTMENT RECOVERY PLAN

DIVISION 1. WATER & SEWER UTILITIES

SECTION 700.800: EQUIVALENT DWELLING UNITS AND CONNECTION FEES

A. *Connection Fee Use and Basis of Calculation.*

1. The Board of Aldermen, in preparing the budget for each year, will determine how best to employ the accumulated connection fee resources. Water connection fees shall only be used to benefit the water utility. Sewer connection fees shall only be used to benefit the sewer utility.
2. Connection fees based on estimated EDUs will be calculated by the procedures in this Section and collected from persons desiring to make new connections or increased use of the Harrisonville water system or sewerage system before the issuance of a sewer permit or water permit.
3. The City's water treatment plants are designed and constructed for maximum daily water demands and maximum daily wastewater flows and strength. EDU determination shall be based upon the average daily water demands and average daily wastewater flow and strength.

B. *Computation Of Units.* The number of EDUs which are connected or for which a sewer or

water permit is issued shall be computed as follows:

1. Single-family houses, town houses, duplex units, tri-plex units, four-plex units and condominium units each comprised of one (1) EDU. For example, a tri-plex building is three (3) units and therefore three (3) EDUs.
2. Apartment units each comprise six-tenths (0.6) EDU. Apartments may receive a one-tenth (0.1) EDU reduction upon application made in writing to the City. Qualification for this reduction is based on the following:
 - a. Common laundry facilities, and
 - b. Absence of plumbing for washers and dryers within each dwelling.
3. Other buildings and structures shall be assigned one (1) EDU for each two hundred (200) gallons of average day water demand and three hundred (300) gallons of average day wastewater discharge (of typical domestic strength). Commercial and industrial building units shall be assigned a minimum of one (1) EDU.
4. After determining the EDUs for a building or connection or user, the EDUs shall be rounded off to the nearest one-tenth (1/10).
5. The EDUs for a multi-purpose room/area in a building shall be determined based on the use which will generate the most water demand/wastewater flow.
6. The standard criteria for determining the equivalent dwelling units for various commercial and institutional facilities are set forth in Section 700.620.
7. Industrial users, food process industries and other potential sources of high demand will have EDUs set on a case-by-case basis by the Director of Public Works with the approval of the Administrator.
8. Each parcel or connection to the City's water or sewer system shall be assigned a minimum of one (1) EDU.

C. *EDU Redetermination And EDU Credits.*

1. Redetermination of EDU assignment occurs when there is redevelopment, demolition or other physical change on a developed property, when an industrial user changes its process and changes its industrial process volume and/or strength or when flow monitoring and testing indicates a substantial difference from the estimated EDUs determined prior to construction.
2. In the case of commercial buildings with space to be leased or speculative commercial space, an initial EDU determination will be made by the City assuming the following:
 - a. For strip shopping centers—one hundred percent (100%) retail (no restaurants, bars, lounges, beauty/barber shops, laundromats, dry cleaners, exercise areas, game rooms/arcades, roller rinks, tanning rooms, theaters, medical offices, animal clinics, etc.);

- b. Warehouse—minimum seventy percent (70%) warehouse (no commercial laundry, dry cleaners, industry, food processing, food service, etc.);
 - c. Office—one hundred percent (100%) office (no restaurants, bars, cocktail lounges, medical offices, beauty/barber shops, exercise areas, meeting rooms over five hundred (500) square feet, etc.).
3. If a subsequent audit by the City finds a change in use where potential volume has increased, redetermination of EDU assignment will occur. This will result in an increased connection fee. The parcel owner will be billed for the difference between the initial connection fee and the increased connection fee. If not paid within sixty (60) days from billing, the additional fee shall accrue late charges at the rate of one and one-half percent (1.5%) per month and, if not paid by the time of certification of total EDUs by the Administrator, shall be levied against the parcel on the next regular November tax bill and shall be subject to all other collection actions authorized by law.
 4. If the EDU assignment decreases, no refund of the connection fee will be made. A connection fee credit will be issued to the owner of the land which has had a reduction in EDU determination. Such credit shall be limited to that specific site. If a subsequent change in development of the parcel (for which EDU credits have been issued) results in increased demand (as reflected in a higher EDU redetermination), the EDU credit will apply to calculation of the new connection fee.

D. *Appeals.*

1. Applicants for permits may appeal EDU determination for their parcel or building, only under the provisions of this Section. The applicant must file written notice of appeal with the City within seven (7) days following the determination of EDUs by the City. Upon payment of the connection fee under protest, the City shall issue the permit. If any portion of the connection fee is paid before a notice of appeal is filed under this Section, the right to appeal is waived.
2. The City Administrator shall consider appeals of EDU determination or request of redetermination within thirty (30) days of receipt of request (except in the case of industrial users in which case the City shall consider appeals or requests within ninety (90) days of receipt of request), unless this period is extended by agreement of the appealing party.

E. *Computation Of Connection Fees.*

1. The connection fee per equivalent dwelling unit listed in section E.2 below is based on historical costs associated with the capacity built into the potable water production facilities and sewer treatment facilities. These fees shall be updated annually at the beginning of each calendar year based upon the change in the Construction Cost Index for the Kansas City region since 12/30/09.
2. The City of Harrisonville has elected to waive 55% of the water connection fee and 55% of the sewer connection fee for service provided inside the city limits. The waiver is considered the City's investment in promoting economic development. If service is provided outside the city limits the fee shall be 125% of the connection fee. The connection fees for calendar year 2010 shall be as follows:

Service Area	Connection Fee per EDU (\$)	
	Water System	Wastewater System
Calculated Fee	\$1,720.00	\$2,886.00
Inside Harrisonville	\$774.00	\$1,299.00
Outside Harrisonville	\$2,150.00	\$3,608.00

3. The connection fee for new connections to or new users of the Harrisonville water system and sewage disposal system consisting of multiple EDUs shall be computed as follows:

$$\text{Connection Fee (in \$)} = (\text{Connection Fee per EDU}) \times (\text{EDUs})$$

If EDU credits apply to the parcel, they should be subtracted from the total EDUs.

4. The connection fee for speculative space shall be based on the City's best estimate of the ultimate use of the space. If subsequent audits indicate the EDUs have been underestimated for such space, the connection fee will be increased accordingly.

F. *Payment of Connection Fees.*

1. Water and Sewer connection fee shall be paid in full at the time a building or plumbing permit is issued to an applicant.
2. Payment Exception- If the combined water and sewer connection fee exceeds ten thousand (\$10,000.00) dollars the applicant may elect to pay the fee in equal monthly installments over a period not to exceed five (5) years, the unpaid balance shall not be subject to interest expense so long as payments do not become delinquent. Delinquent monthly installment payments of the connection fee shall accrue late charges at the rate of one and one-half percent (1.5%) per month and, if payments remain in arrears as of September 15, the City, shall levy the total unpaid connection fee balance including accumulated interest against the parcel on the next regular tax bill and shall be subject to all other collection actions authorized by law.

SECTION 700.810: EDU RATIOS TO BE USED FOR COMPUTATION OF CONNECTION FEES

The following shall be used to determine the connection fees to be assessed under this Chapter:

Source of Flow	Equivalent Dwelling Units (EDU)	Parameter
RESIDENTIAL:		
Apartments w/laundry hookups	0.6	per unit
Apartments w/o laundry hookups	0.5	per unit
Hotel/motel	0.3	per room
Single-family residence	1.0	per home
Duplex, triplex, town homes, etc.	1.0	per unit
Mobile homes	1.0	per unit
INSTITUTIONAL:		
Hospital	0.8	per bed
Nursing home	0.4	per unit
Prison/jail	0.4	per inmate
Retirement home	0.4	per unit
Schools—elementary	1.1	per 1,000 square feet
Schools—middle and high	1.4	per 1,000 square feet
COMMERCIAL/RETAIL:		
Office—general	0.3	per 1,000 square feet
Retail stores	0.2	per 1,000 square feet
Warehouse (minimum 70% warehouse)	0.1	per 1,000 square feet
Shopping centers and stores	0.2	per 1,000 square feet
Restaurants:		
drive-in	0.1	per parking space
fast-food (disposable plates, glasses and silverware)	2.5	per 1,000 square feet
full-service	5.6	per 1,000 square feet
Animal clinics	1.0	per 1,000 square feet
Auditoriums	0.6	per 1,000 square feet
Automobile dealerships:		
office rate + service bays	office rate + 0.1	per service bay
Automobile service:		
fast service	0.5	per service bay
major service	0.1	per service bay
Bars and cocktail lounges	3.8	per 1,000 square feet
Banquet rooms—food catered	0.8	per 1,000 square feet
Banquet rooms—food prepared	1.7	per 1,000 square feet
Beauty shop/barber shop	0.1	per 1,000 square feet
Body shop	0.1	per 1,000 square feet
Bowling alleys	0.4	per lane
Car wash (self-service)	3.0	per stall
Car wash (automatic at service station)	6.0	per stall
Car wash—tunnel (car pulled through)	requires equipment spec.'s	per (minimum of 33)
Car wash using recycled water may be credited a portion of their EDU calculation	requires equipment spec.'s	Dependent upon percent of recycled water used
Churches	0.5	per 1,000 square feet
Convenience store (no service bays or car wash)	1.0 + 0.3/1,000 square feet	
Day care/nursery schools	1.7	per 1,000 square feet
Dry cleaners	0.3	per 1,000 square feet
Clubhouse (apartment)	1.0	per
Country club—private w/golf course	3.0 + 3.5/1,000 square feet	per

Country club—private w/o golf course	3.5	per 1,000 square feet
Exercise area/gym—no showers	0.5	per 1,000 square feet
Exercise area/gym—w/showers	1.4	per 1,000 square feet
Fire station	by water use	per (minimum of 4)
Game room/arcade	0.8	per 1,000 square feet
Golf course	3.0	per
Greenhouse (area open to public)	0.2	per 1,000 square feet
Group home	0.4	per bed
Handball and racquetball courts	2.0	per court
Laundromat/commercial laundry	0.6/washer or 8.0/1,000 square feet	per
Library (excludes book/file storage)	0.4	per 1,000 square feet
Locker rooms	0.1	per locker
Medical offices/outpatient clinics	0.4	per 1,000 square feet
Meeting/conference rooms	0.6	per 1,000 square feet
Museum	0.4	per 1,000 square feet
Rifle/handgun ranges	0.2	per lane
Roller rink	1.2	per 1,000 square feet
Schools—TVI, junior college	1.3	per 1,000 square feet
Gas station w/convenience center and w/o service bays	1.0 + 0.3/1,000 square feet	
Gas station w/o convenience center and w/o service bays	1.0	
Service station w/2 service bays	2.0	
Service station w/2 service bays and w/car wash	8.0	
Service station w/2 service bays and convenience center	2.0 + .3/1,000 square feet	
Service station w/2 service bays, convenience center and car wash	8.0 + .3/1,000 square feet	
Swimming pools public or private as a site amenity (private homes no change)	1.1	per 1,000 square feet
Stadium/arena	1.0/110 seats or 1.0/165 linear feet of bleachers	
Tanning rooms/centers	0.3	per 1,000 square feet
Tennis courts w/shower facilities	2.0	per court
Theater	1.2	per 1,000 square feet
Vehicle garage	0.2	per 1,000 square feet
Yard storage buildings (excludes lumber storage)—customer pickup, no permanent employees	0.1	per 1,000 square feet
Industry (including food processing)	According to City estimate of potential sewage strength and flow	
NOTES:		
1) One (1) Equivalent Dwelling Unit (EDU) is defined as the typical family size (3.05 people) for Harrisonville per the 2000 Census.		
2) EDU assignments are based on typical domestic average day water demands and sewer flows.		
3) Connection fees are based on total EDUs and the following formula: Connection Fee = (Connection Fee per EDU) x (EDUs)		
4) There is a minimum of one (1) EDU for each parcel and/or connection to the City's system.		

DIVISION 2. ELECTRIC UTILITY

SECTION 700.820: ELECTRIC CONNECTION FEES

A. *Connection Fee Use and Basis of Calculation.*

1. The Board of Aldermen, in preparing the budget for each year, will determine how best to employ the accumulated connection fee resources. Electric connections fees shall only be used to benefit the electric utility.
2. Connection fees based on transformer capacity (Volts, Phases, & KVA) will be calculated by the procedures in this Section and collected from persons desiring to make new connections or increased use of the Harrisonville electrical system before the issuance of an electrical permit.

B. *Computation Of Connection Fee.* The current value of one KVA shall be determined by adjusting the City's historical actual cost paid per KVA of capacity (in substations) by the Construction Cost Index for Kansas City. The current value will be adjusted annually by this index effective on January 1 for each calendar year.

1. Three Phase Electrical Service- The Connection fee for a three phase site shall be calculated by multiplying the KVA capacity of the transformer requested for the site by the current value of a KVA multiplied by 45%. The City of Harrisonville has elected to waive 55% of the electric connection fee for three phase customers. The waiver is considered the City's investment in promoting economic development. Three phase customers consume more electricity than single phase customers thereby returning the City's investment in capacity in a shorter time. If service is provided outside of the city limits the connection fee shall be 125% of the undiscounted connection fee calculated.
2. Single Phase Electrical Service- The Connection fee for a single phase site shall be calculated by multiplying the KVA capacity of the transformer requested for the site by the current value of a KVA and dividing that value by three. This reflects the fact that single phase users only consume a third of the KVA capacity as three phase users. If service is provided outside of the city limits the fee shall be 125% of the connection fee calculated.

C. *Electric Connection Fee Redetermination And Credits.*

1. Redetermination of electric connection fee occurs when the existing transformer for a site is replaced by a larger transformer or additional transformers are set adding additional electrical consumption capacity to the site. This will result in an increased connection fee. The parcel owner will be billed for the difference between the initial connection fee and the increased connection fee. If not paid within sixty (60) days from billing, the additional fee shall accrue late charges at the rate of one and one-half percent (1.5%) per month and, if not paid by the time of certification of total connection fee by the Administrator, shall be levied against the parcel on the next regular November tax bill and shall be subject to all other collection actions authorized by law.
2. If a smaller capacity transformer is set replacing a larger capacity existing transformer, no refund of the connection fee will be made. A connection fee credit will be issued to the owner of the land when these circumstances arise. Such credit shall be limited to

that specific site. If a subsequent change in development of the parcel (for which electrical connection fee credits have been issued) results in larger capacity transformers being set, the credit will apply to calculation of the new connection fee.

D. Appeals.

1. Applicants for permits may appeal electrical connection fee determination for their parcel or building, only under the provisions of this Section. The applicant must file written notice of appeal with the City within seven (7) calendar days following the determination of electrical connection fees by the City. Upon payment of the connection fee under protest, the City shall issue the permit. If any portion of the connection fee is paid before a notice of appeal is filed under this Section, the right to appeal is waived.
2. The City Administrator shall consider appeals of electrical connection fees within thirty (30) days of receipt of request, unless this period is extended by agreement of the appealing party.

E. Schedule of Transformers and Related KVA Capacity.

Volts	Phases	KVA
277/480	3	2,500
120/208	3	2,500
277/480	3	2,000
120/208	3	2,000
277/480	3	1,500
120/208	3	1,500
277/480	3	1,000
120/208	3	1,000
277/480	3	750
120/208	3	750
277/480	3	500
120/208	3	500
277/480	3	300
120/208	3	300
120/240	1	100
120/240	1	75
120/240	1	50
120/240	1	50
4 HOMES		
120/240	1	25
3 HOMES		
120/240	1	15
2 HOMES		

F. Payment of Connection Fees.

1. Electric connection fees shall be paid in full at the time a building or electrical permit is issued to an applicant.
2. Payment Exception- If the electric connection fee exceeds ten thousand (\$10,000.00)

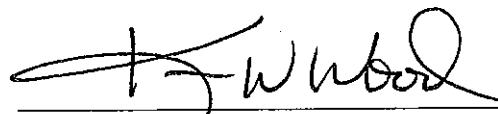
dollars the applicant may elect to pay the fee in equal monthly installments over a period not to exceed five (5) years, the unpaid balance shall not be subject to interest expense so long as payments do not become delinquent. Delinquent monthly installment payments of the connection fee shall accrue late charges at the rate of one and one-half percent (1.5%) per month and, if payments remain in arrears as of September 15, the City, shall levy the total unpaid connection fee balance including accumulated interest against the parcel on the next regular tax bill and shall be subject to all other collection actions authorized by law.

Section 2: That this order shall be come effective upon its passage and approval.

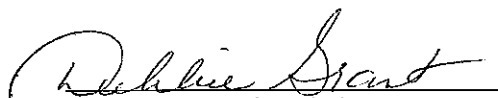
Vote taken as follows:

Ayes: Aldermen Young, Coburn, Dickerson, Reece, Mollenhour
 Nays: None
 Absent: Aldermen Hammonds, Licht, Fools
 Abstain: None

Read one time by title only on May 17, 2010 and read for a second reading by title only on the 17th day of May 2010 and passed by the Board of aldermen and approved by the Mayor this 17th day of May 2010.


 Kevin W. Wood, Mayor & Ex-Officio
 Chairman of the Board of Aldermen

ATTEST:


 Debbie Grant, City Clerk

APPROVED by the Mayor this 17th day of May 2010

Electric Supply Capacity Connection Fee Calculation

Last Updated: 2/1/2015

Item	Year of Construction	Actual Cost	CCI Inflation Factor	Cost in 2014 Dollars	
Construction Cost Index	2014		10,910.95		
North Substation	1971	\$521,992.57	607%	\$3,169,412.82	\$950,823.85
North Substation transformer, OCB's, Circuit switcher, and switches were retired in 2013 (Estimate that 75% of the 1971 equipment was replaced)	1971	-\$391,494.43	607%	-\$2,377,059.61	-\$0.7500
Royal St. Substation Land	1997	\$46,956.98	187%	\$87,910.69	
Royal St. Substation	1998	\$812,254.38	184%	\$1,490,973.70	
South Substation	2002	\$1,016,100.63	165%	\$1,672,462.96	
69 KV Transmission Line	2002	\$1,038,634.30	165%	\$1,709,552.52	
North Substation Re-bulid; new transformer, breakers, switches, circuit switcher, and controls installed. No change in KVA capacity.	2013	\$1,200,000.00	100%	\$1,201,605.67	
		<u>\$4,244,444.43</u>			

A Investment in Electric Supply Capacity in Current Dollars \$6,954,858.75

B Electric Supply Capacity = 60,000 KVA
(Three 20,000 KVA Substations)

C Value of a KVA in Three Phase \$115.91 = A/B

D Value of a KVA in Single Phase \$38.64 = A/B/3

Schedule of Connection Fees			Electric Connection Fee	45% of Fee	Monthly Payment based on a 5 Year Amortization
Transformer Capacity & Type					
Volts	Phases	KVA			
277/480	3	2,500	\$ 289,786	\$ 130,404	\$ 2,173
120/208	3	2,500	\$ 289,786	\$ 130,404	\$ 2,173
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277/480	3	1,500	\$ 173,871	\$ 78,242	\$ 1,304
120/208	3	1,500	\$ 173,871	\$ 78,242	\$ 1,304
277/480	3	1,000	\$ 115,914	\$ 52,161	\$ 869
120/208	3	1,000	\$ 115,914	\$ 52,161	\$ 869
277/480	3	750	\$ 86,936	\$ 39,121	\$ 652
120/208	3	750	\$ 86,936	\$ 39,121	\$ 652
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120/208	3	500	\$ 57,957	\$ 26,081	\$ 435
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277/480	3	112.5	\$ 13,040	\$ 5,868	\$ 98
120/208	3	112.5	\$ 13,040	\$ 5,868	\$ 98
120/240	1	100	\$ 3,864		
120/240	1	75	\$ 2,898		
120/240	1	50	\$ 1,932		
120/240	1	50	\$ 483		
4 HOMES					
120/240	1	25	\$ 322		
3 HOMES					
120/240	1	15	\$ 290		
2 HOMES					
Average for Single Family Home			\$ 365		

Potable Water Treatment Capacity Connection Fee Calculation

Last Updated:

2/1/2015

Item	Year of Construction	Actual Cost	CCI Inflation Factor	Cost in 2014 Dollars
Construction Cost Index	2014		10,910.95	
Land - Water Plant	1970	\$54,809.67	685%	\$375,172.88
Lake Harrisonville Reservoir	1971	\$1,403,790.06	607%	\$8,523,474.21
Water Plant	1971	\$340,717.27	607%	\$2,068,752.98
Water Plant	1980	\$906,907.64	307%	\$2,785,943.04
Spillway Enhancements at Lake Harrisonville- installed concrete weir in grass spillway	1990	\$173,407.21	230%	\$399,206.96
Water Plant Upgrade	1992	\$274,619.56	222%	\$608,491.93
Water Plant Upgrade	1993	\$541,394.42	213%	\$1,153,197.52
New Clear Well	2000	\$354,471.65	175%	\$618,745.34
Survey and Design for Line Connecting to KC Supply near Pleasant Hill	2009	\$272,738.26	112%	\$305,344.60
Right to Buy 5 MGD from KC	2009	\$3,159,184.00	112%	\$3,536,870.03
Back Up Generator at Plant	2011	\$116,150.00	104%	\$120,757.76
VFD Installed at Raw Water Intake	2012	\$54,719.00	102%	\$56,024.92
Lagoon Water Recovery Pump	2012	\$40,643.00	102%	\$41,612.98

\$7,693,551.74

A Investment in Water Production Capacity in Current Dollars	\$20,593,595.15
B Sustainable Water Production Capacity = (Maximum Production Capacity is 2,400,000 gal/day)	2,100,000
C Value of 1 Gallon of Capacity =	\$9.81
D Harrisonville Average Family size (2000 Census) =	3.05
E * Average Day Water Consumption Per Person Per Day in Harrisonville =	65
F Water Consumption Per Family Per Day =	198.25
G Equivalent Dwelling Unit (EDU) Connection Fee =	\$1,944.13
	2014 Fee \$875

* Calculation for Average Consumption Per Person Per Day for Harrisonville (for the period of 1/07 to 12/09)

1 Average Number of Residential Accounts =	4,543
2 Total Gallons of Residential Water Consumption =	980,918,100
3 Harrisonville Average Family size (2000 Census) =	3.05
4 Days of Consumption from 1/1/07 to 12/31/09 =	1,095
5 Average Consumption Per Person Per Day =	65 = (2/4) / (1*3)

Sanitary Sewer Treatment Capacity Connection Fee Calculation

Last Updated:

2/1/2015

Item	Year of Construction	Actual Cost	CCI Inflation Factor	Cost in 2014 Dollars
Construction Cost Index	2014	10,910.95		
Land for Sewer Plant	1968	\$18,425.00	979%	\$180,299.78
New Waste Water Plant	1971	\$739,119.00	608%	\$4,495,256.66
Packaged Lift Station- replaced with Lift Station #2 & Wet Well in 2004 (Est 15% of original plant value)	1971	-\$110,867.85	608%	-\$674,288.50
Course bubble difusers, clarifier mechanics & grit removal systems replaced as part of 2011 Plant Upgrades (Est 20% of original plant value)	1971	-\$147,823.80	608%	-\$899,051.33
Original blowers replaced with high efficiency blowers in 2012 (Est 5% of original plant value)	1971	-\$36,955.95	608%	-\$224,762.83
Plant Expansion	1989	\$3,813,620.00	233%	\$8,894,740.17
Plant Upgrades	1989	\$82,194.00	233%	\$191,706.11
Lift Station #2 & Wet Well (at WWTP)	2004	\$1,379,150.00	138%	\$1,906,986.11
Add Extraneous Flow Basin	2004	\$1,281,518.00	138%	\$1,771,987.84
Facility Study	2008	\$56,400.00	118%	\$66,763.61
Engineering Design	2009	\$500,000.00	112%	\$559,775.88
Geotechnical Design	2009	\$11,000.00	112%	\$12,315.07
Bidding Cost	2009	\$19,730.00	112%	\$22,088.76
Construction Phase Engineering	2011	\$160,230.00	104%	\$166,586.45
Special Inspections/Testing	2011	\$46,342.00	104%	\$48,180.42
On Site Inspector	2011	\$141,561.00	104%	\$147,176.84
Plant Expansion & Upgrades with SCADA	2011	\$6,271,818.00	104%	\$6,520,626.05
Install VFD, High Efficiency Blowers, LED Lighting	2012	\$389,198.20	102%	\$398,486.77

\$14,614,657.60

A Investment in Sewer Treatment Capacity in Current Dollars	<u>\$23,584,873.87</u>
B Designed Average Daily Treatment Capacity with Ammonia Treatment = (Peak treatment capacity 8 MGD)	2,400,000
C Value of 1 Gallon of Capacity =	\$9.83
D Harrisonville Average Family size (2000 Census) =	3.05
E Average Day Waste Water Contributions Per Person = (MDNR Standard- MO 10 CSR 20-8.120 (5)	100
F Waste Water Contributions Per Family Per Day =	305
G Equivalent Dwelling Unit (EDU) Connection Fee =	\$2,997.24
	2014 Fee \$1,349

Attachment: CAPACITY RECOVERY FEES ADOPTED 2010 ORDINANCE WITH 2015 FEES - BOA Worksession 3-7-16 (2136 : Capacity Recovery