

Falcon Heights City Council Workshop

**City Hall
2077 W Larpenteur Ave.
6:30 p.m.**

AGENDA Wednesday, March 2, 2011

:

- 1) City Hall Solar Panel Update**
- 2) Carbon Footprint Baseline Analysis Update**
- 3) Review of Ordinance Prohibiting Retail Activity in City Parks**

If you have a disability and need accommodation in order to attend this meeting, please notify City Hall 48 hours in advance between the hours of 8:00 a.m. and 4:30 p.m. at 651-792-7600. We will be happy to help.



The City That Soars!

REQUEST FOR COUNCIL ACTION

Meeting Date	March 2, 2011
Agenda Item	Workshop 1
Attachment	ECS Proposal
Submitted By	Justin Miller, City Administrator

Item	City Hall Solar Panel Update
Description	<p>Earlier this year the City of Falcon Heights was approached with the opportunity to place solar panels on the roof at city hall. With the various tax credits and rebates that are currently available to private companies, the city would enter into a lease-purchase agreement where the city would take advantage of the energy savings while the upfront capital costs and rebates would be the responsibility of the private company.</p> <p>Over the past few months, staff and representatives of the solar panel manufacturer and installation company have been further discussing details. Staff believes that we are at a point where a financing decisions need to be discussed before the project can proceed any further.</p> <p>Attached to this report is the proposal from Electrical Contracting Solutions, which is the private entity that would own and install the solar panels. Both staff and ECS personnel will be prepared to better explain the proposal at the workshop, but in summary:</p> <ol style="list-style-type: none"> 1) ECS would own and install the system for a period of five years. During these five years, they would receive Xcel Energy rebates and federal tax credits. 2) The City would pay ECS \$5,400 per year for five years and then an exit payment of \$27,000 in year six for a total investment of \$54,000. The city would then own the system beginning in year six. 3) The system would begin producing electricity in the amount of \$3,793 in year one and increase of a value of \$9,580 in year 20, according to their projections. 4) The approximate break-even point would be year 11 (lease payments total \$54,000, accumulated savings from production of electricity would be \$53,928). A spreadsheet detailing the city's cashflow during this project is also attached.

Budget Impact	The budget impact would be dependent on the financing structure that is agreed upon between the city and ECS.
Attachment(s)	ECS Proposal City Cash Flow Analysis
Action(s) Requested	Staff will be available to answer questions and to receive further direction from the city council on how to proceed with this project.



City of Falcon Heights

40 kW Solar Project

5960 Main Street NE, Minneapolis, MN 55432
www.ElectricalConsultingSolutions.com

Phone: (763) 571-1126
Fax: (763) 571-7210



Owner's Sources & Uses

1 - 40 kW System

39.81 kW Actual

	Year of Lease					Exit	Subtotals
	1	2	3	4	5		
Sources							
Solar Rewards (Xcel Rebate)	\$89,573	n/a	n/a	n/a	n/a	n/a	\$89,573
Made in Minnesota (Xcel Rebate)	\$100,906	n/a	n/a	n/a	n/a	n/a	\$100,906
MN Office of Energy Security (OES Grant)	n/a	n/a	n/a	n/a	n/a	n/a	\$0
Tax Credit Forgiveness	\$95,239	n/a	n/a	n/a	n/a	n/a	\$95,239
Roof Lease Payment	\$1	\$1	\$1	\$1	\$1	n/a	\$5
System Lease Payment	\$1	\$1	\$1	\$1	\$1	n/a	\$5
System Production (4.5¢ & 3% inflation)	\$3,793	\$3,984	\$4,184	\$4,394	\$4,614	n/a	\$20,968
Yearly Sources	\$289,512	\$3,986	\$4,186	\$4,396	\$4,616	n/a	\$306,695
Uses							
Initial System Purchase (\$329,000)	-\$285,717	n/a	n/a	n/a	n/a	n/a	-\$285,717
Power Purchase Agreement (PPA)	-\$5,400	-\$5,400	-\$5,400	-\$5,400	-\$5,400	n/a	-\$27,000
Liability Insurance (includes 3% inflation)	\$0	\$0	\$0	\$0	\$0	n/a	\$0
Exit Payment	n/a	n/a	n/a	n/a	n/a	-\$27,000	-\$27,000
Yearly Uses	-\$291,117	-\$5,400	-\$5,400	-\$5,400	-\$5,400	-\$27,000	-\$339,717
Gain (Loss)	1	2	3	4	5	Exit	Subtotals
	-\$1,605	-\$1,414	-\$1,214	-\$1,004	-\$784	-\$27,000	-\$33,022



City of Falcon Heights
40 kW Solar Project

Owner's Sources & Uses

1 - 40 kW System

39.81 kW Actual

	Year of Lease						Subtotals
	6	7	8	9	10	11	
Sources							
Solar Rewards (Xcel Rebate)	n/a	n/a	n/a	n/a	n/a	n/a	\$89,573
Made in Minnesota (Xcel Rebate)	n/a	n/a	n/a	n/a	n/a	n/a	\$100,906
MN Office of Energy Security (OES Grant)	n/a	n/a	n/a	n/a	n/a	n/a	\$0
Tax Credit Forgiveness	n/a	n/a	n/a	n/a	n/a	n/a	\$95,239
Roof Lease Payment	n/a	n/a	n/a	n/a	n/a	n/a	\$5
System Lease Payment	n/a	n/a	n/a	n/a	n/a	n/a	\$5
System Production (4.5¢ & 3% inflation)	\$4,845	\$5,088	\$5,343	\$5,610	\$5,890	\$6,185	\$53,928
Yearly Sources	<u>\$4,845</u>	<u>\$5,088</u>	<u>\$5,343</u>	<u>\$5,610</u>	<u>\$5,890</u>	<u>\$6,185</u>	<u>\$339,656</u>
Uses							
Initial System Purchase	n/a	n/a	n/a	n/a	n/a	n/a	-\$285,717
Power Purchase Agreement (PPA)	n/a	n/a	n/a	n/a	n/a	n/a	-\$27,000
Liability Insurance (includes 3% inflation)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exit Payment	n/a	n/a	n/a	n/a	n/a	n/a	-\$27,000
Yearly Uses	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>-\$339,717</u>
Gain (Loss)							
Yearly Gain (Loss)	<u>\$4,845</u>	<u>\$5,088</u>	<u>\$5,343</u>	<u>\$5,610</u>	<u>\$5,890</u>	<u>\$6,185</u>	<u>-\$62</u>
Subtotals							

Product Forecast Assumptions

1 - 40 kW System

39.81 kW Actual

Panel Manufacturer:	tenksolar RAIS Module & Wave	tenksolar multiplier:	1.26
System Size (W):	39,810	Yearly kW/h Inflation Rate:	5.55%
Yearly Degradation:	0.50%	U.S. Inflation Rate:	3.00%
		Energy cost/KWH:	\$0.0756

	Year of Operation									
	1	2	3	4	5	6	7	8	9	10
Output In kW/h Per Year	50,161	49,910	49,659	49,408	49,157	48,907	48,656	48,405	48,154	47,903
kW/h Price without inflation	\$0.0756	\$0.0798	\$0.0842	\$0.0889	\$0.0939	\$0.0991	\$0.1046	\$0.1104	\$0.1165	\$0.1230

Yearly Revenue	\$3,793	\$3,984	\$4,184	\$4,394	\$4,614	\$4,845	\$5,088	\$5,343	\$5,610	\$5,890
Accumulated Revenue	\$3,793	\$7,777	\$11,961	\$16,354	\$20,968	\$25,813	\$30,901	\$36,244	\$41,853	\$47,744

	Year of Operation									
	11	12	13	14	15	16	17	18	19	20
Output In kW/h Per Year	47,653	47,402	47,151	46,900	46,649	46,399	46,148	45,897	45,646	45,395
kW/h Price without inflation	\$0.1298	\$0.1370	\$0.1446	\$0.1526	\$0.1611	\$0.1700	\$0.1795	\$0.1894	\$0.1999	\$0.2110

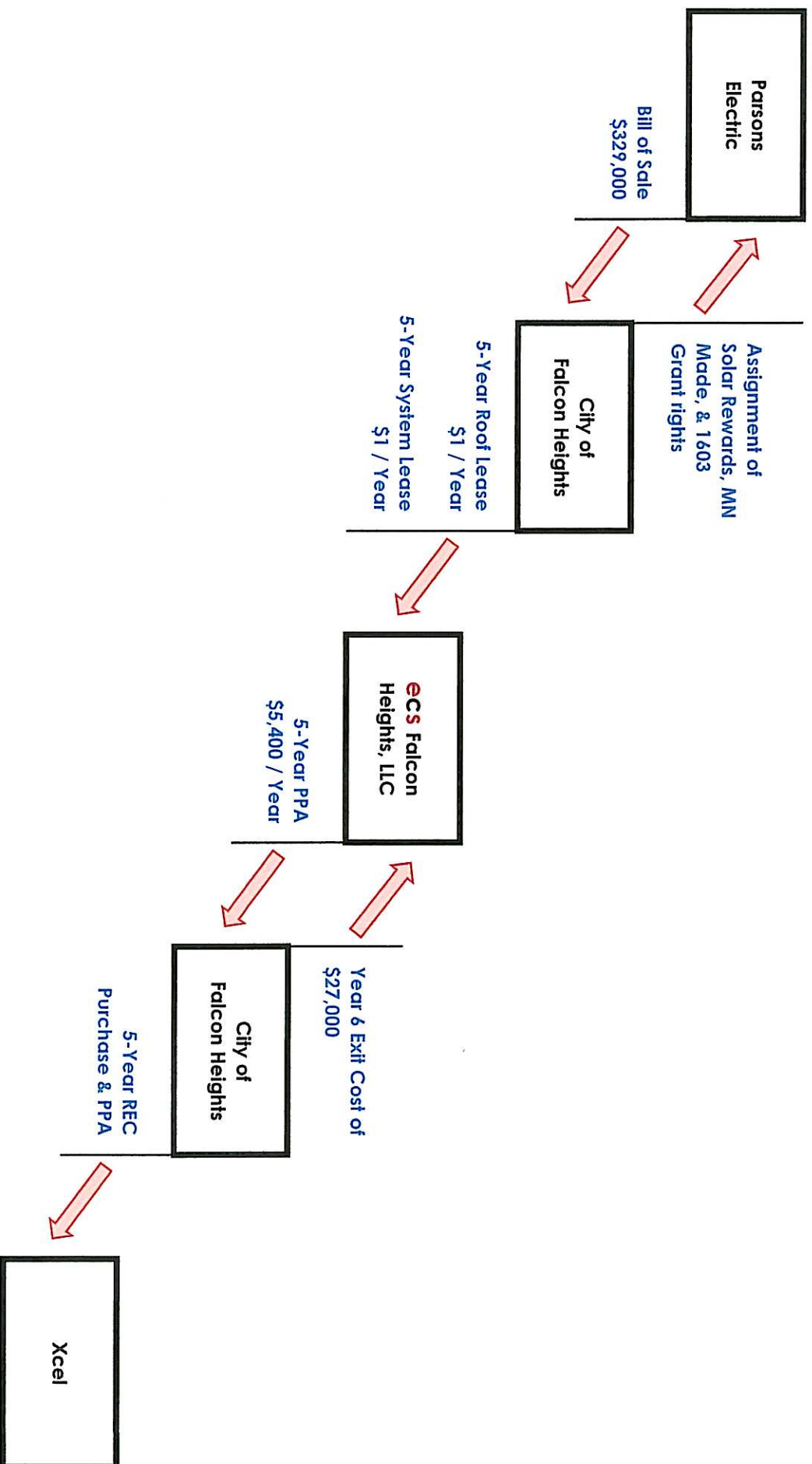
Yearly Revenue	\$6,185	\$6,494	\$6,818	\$7,158	\$7,515	\$7,889	\$8,282	\$8,694	\$9,126	\$9,580
Accumulated Revenue	\$53,928	\$60,422	\$67,240	\$74,397	\$81,912	\$89,801	\$98,083	\$106,777	\$115,904	\$125,484

Cells requiring manual entries:

Project Structure

1 - 40 kW System

39.81 kW Actual





Bill History Report
Electric Service Detail

Customer Name: FALCON HEIGHTS CITY OF
Account Number: 51-6172922-4
Report Create Date: 01/10/2011

Utility Type: Electric
Service Number: 001
Meter Number: 000002797898
Multiplier: 40

Address Line1: 2077 LARPELLEUR AVE W
Service City, State, Zip: SAINT PAUL, MN 55113-5551

Premise Number: 303472923

Premise Description: General Service

Read date	Days	On-pk Usage (kWh)	Off-pk Usage (kWh)	Total Usage (kWh)	Avg Usage/Day (kWh)	Billed Demand (kW) On Peak	Billed Demand (kW) Off Peak	Actual Demand (kW) On Peak	Adjusted Demand (kW) On Peak	Power Factor (kVAr)	Load Factor (%)	Usage Billed (\$)	Demand Billed (\$)	Other Charges (\$)	ECA/FCA (\$)	Electric Service Sub-Total (\$)	Tax (\$)	Electric Invoice Total (\$)	Invoice Date
01/03/11	38	0	0	11560	304.2	24	0	24	24	0.976	52.81	285.30	189.92	124.34	314.63	874.19	60.10	934.29	01/03/11
11/24/10	28	0	0	7600	262.1	22	0	22	22	0.980	49.63	174.42	155.76	93.12	188.02	611.32	42.03	653.35	11/26/10
10/26/10	29	0	0	8440	291.0	30	0	30	30	0.970	40.42	193.70	222.94	95.70	200.00	712.34	48.97	761.31	10/28/10
09/27/10	30	0	0	9800	326.7	31	0	31	31	0.959	43.91	224.91	324.88	6.85	229.84	786.48	60.78	847.26	09/29/10
08/28/10	31	0	0	12080	389.7	36	0	36	36	0.946	45.10	277.24	377.28	24.16	339.81	1,018.29	76.72	1,095.01	08/30/10
07/28/10	30	0	0	11520	384.0	36	0	36	36	0.946	44.44	264.38	377.28	20.86	364.25	1,016.77	76.61	1,093.38	07/30/10
06/28/10	29	0	0	9960	343.4	33	0	33	33	0.950	43.36	228.58	341.96	9.49	264.62	844.65	64.77	909.42	06/30/10
05/30/10	32	0	0	10560	330.0	34	0	34	34	0.968	40.44	242.35	240.72	110.51	242.30	835.88	57.47	893.35	05/01/10
04/28/10	29	0	0	9040	311.7	32	0	32	32	0.970	40.59	207.07	226.28	92.24	216.85	742.42	51.04	793.46	04/30/10
03/30/10	29	0	0	9440	325.5	30	0	30	30	0.975	45.21	204.75	204.30	125.81	244.40	779.26	53.57	832.83	03/31/10
03/01/10	30	0	0	11480	382.7	34	0	34	34	0.977	46.90	249.00	231.54	144.60	305.89	931.03	64.01	995.04	03/03/10
01/30/10	28	0	0	10960	391.4	31	0	31	31	0.971	52.61	237.72	211.11	137.26	289.56	875.65	60.20	935.85	02/01/10
01/02/10	32	0	0	10040	313.8	27	0	27	27	0.967	48.42	217.77	183.87	123.43	256.03	781.10	53.70	834.80	01/04/10
	366			132480								2,987.19	3,267.82	1,109.37	3,446.00	10,809.38	769.97	11,579.35	

* Denotes that billing history has been rolled up to next billed invoice



Bill History Report
Electric Service Detail

Customer Name: FALCON HEIGHTS CITY OF
Account Number: 51-6172922-4
Report Create Date: 01/10/2011

Utility Type: Electric
Service Number: 001
Meter Number: 000002797898
Multiplier: 40

Address Line1: 2077 LARPENTEUR AVE W
Service City, State, Zip: SAINT PAUL, MN 55113-5551

Premise Number: 303472923

Premise Description:

Tariff Description: General Service

Read date	Days	On-pk Usage (kWh)	Off-pk Usage (kWh)	Total Usage (kWh)	Avg Usage/Day (kWh)	Billed Demand (kW) On Peak	Billed Demand (kW) Off Peak	Actual Demand (kW) On Peak	Adjusted Demand (kW) On Peak	Power Factor (kVar)	Load Factor (%)	Usage Billed (\$)	Demand Billed (\$)	Other Charges (\$)	ECARFCA (\$)	Electric Service Sub-Total (\$)	Tax (\$)	Electric Invoice Total (\$)	Invoice Date
12/01/09	35	0	0	9960	284.6	30	0	30	30	0.967	39.52	216.03	204.30	125.75	236.80	782.88	53.82	836.70	12/01/09
10/27/09	29	0	0	9480	326.9	26	0	26	26	0.968	52.39	205.62	183.04	112.22	210.78	711.66	48.92	760.58	10/29/09
09/28/09	30	0	0	10760	358.7	34	0	34	34	0.950	43.95	233.38	345.10	33.04	237.21	848.73	65.05	913.78	09/30/09
08/28/09	31	0	0	11360	366.5	34	0	34	34	0.950	44.91	246.40	345.10	36.53	296.37	924.40	70.26	994.66	08/31/09
07/29/09	30	0	0	11120	370.7	32	0	32	32	0.948	48.26	241.19	324.80	32.13	274.71	872.83	66.60	939.43	07/31/09
06/29/09	29	0	0	10560	364.1	40	0	40	40	0.951	37.93	229.05	405.00	43.15	240.66	918.86	66.06	984.92	07/01/09
05/31/09	32	0	0	8800	275.0	24	0	24	24	0.961	47.74	190.87	163.44	108.65	175.90	637.06	41.40	678.46	05/02/09
04/29/09	30	0	0	10520	350.7	28	0	28	28	0.965	52.18	228.18	180.68	122.21	221.95	763.02	48.59	812.61	05/01/09
03/30/09	30	0	0	10160	338.7	30	0	30	30	0.982	47.04	220.37	204.30	122.57	278.38	825.62	53.66	879.28	03/31/09
02/28/09	28	0	0	10240	365.7	29	0	29	29	0.967	52.55	222.11	197.49	119.07	248.01	786.68	51.14	837.82	03/02/09
01/31/09	31	0	0	11400	367.7	31	0	31	31	0.966	49.43	247.27	211.11	126.90	264.94	850.22	55.27	905.49	02/02/09
	335			114360								2,480.47	2,775.36	980.42	2,685.71	6,921.96	621.77	9,543.73	

* Denotes that billing history has been rolled up to next billed invoice



**Bill History Report
Electric Service Detail**

Customer Name: FALCON HEIGHTS CITY OF	Utility Type: Electric	Address Line1: 2077 LARPELLEUR AVE W
Account Number: 51-6172922-4	Service Number: 001	Service City, State, Zip: SAINT PAUL, MN 55113-5551
Report Create Date: 01/10/2011	Meter Number: 000002797898	
	Multiplier: 40	

Premise Number: 303472923

Premise Description:

General Service

Tariff Description:

Read date	Days	On-pk Usage (kWh)	Off-pk Usage (kWh)	Total Usage (kWh)	Avg Usage/Day (kWh)	Billed Demand (kW) On Peak	Billed Demand (kW) Off Peak	Actual Demand (kW) On Peak	Adjusted Demand (kW) On Peak	Power Factor (kVar)	Load Factor (%)	Usage Billed (\$)	Demand Billed (\$)	Other Charges (\$)	ECA/FCA (\$)	Electric Service Sub-Total (\$)	Tax (\$)	Electric Invoice Total (\$)	Invoice Date
12/31/08	35	0	0	12280	350.9	28	0	28	28	0.985	52.21	266.35	190.68	81.17	319.46	857.66	55.75	913.41	01/02/09
	35			12280								266.35	190.68	81.17	319.46	857.66	55.75	913.41	

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REQUEST FOR COUNCIL ACTION

Meeting Date	March 2, 2011
Agenda Item	Workshop 2
Attachment	
Submitted By	Justin Miller, City Administrator

Item	Carbon Footprint Baseline Analysis Update
Description	<p>A few years ago, the city engaged the Minnesota Climate Change Corps to conduct a city-wide carbon footprint baseline analysis to measure the amount of carbon that was produced within the city limits of Falcon Heights. To a certain extent, this type of report was groundbreaking, and a consultant involved in the Minnesota GreenStep Cities program offered to expand on the program for the five GreenStep pilot cities. The city agreed to pay \$1,800 for the consultant to further study two more years of data, and he is ready to present his preliminary findings to the city council.</p> <p>Rick Carter from LHB Architects is the consultant working on this project, and he presented his findings to the Environment Commission on February 14th. At that time he inquired about presenting to the city council, so we have scheduled him to make a similar presentation during the March 2nd city council workshop.</p>
Budget Impact	N/A
Attachment(s)	
Action(s) Requested	No action is required.



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REQUEST FOR COUNCIL ACTION

Meeting Date	March 2, 2011
Agenda Item	Workshop 3
Attachment	
Submitted By	Justin Miller, City Administrator

Item	Review of Ordinance Prohibiting Retail Activity in City Parks
Description	<p>One of the items included in the 2010-11 city council goals is to review the city ordinance that prohibits retail activity in city parks. Specifically, Falcon Heights City Code 34-22 (d) states: <i>"Unlawful sales - No person shall sell or offer for sale, any object, merchandise or service or conduct any commercial enterprise except concessions invited by the city in conjunction with city-sponsored events or activities."</i></p> <p>This ordinance is a matter of city policy, and could be changed by amending the city code. However, our lease with the University of Minnesota for Community Park and Grove Park has the following clause:</p> <p>3. <u>Use of Property.</u> 3.1 City shall occupy and use the Property solely for playground and recreational purposes, and for no other purpose without University's prior written consent, which University may withhold in its sole discretion.</p> <p>The only city park that is owned by the City of Falcon Heights in Curtiss Field.</p>
Budget Impact	In theory, the city may be able to charge additional fees to vendors wanting to sell products in city parks. The amount generated would be dependent on the rate that is set and the number of vendors who take advantage of the change in policy.
Attachment(s)	None
Action(s) Requested	Staff is bringing this to the city council for discussion purposes only. If further direction or information is needed, staff will follow up at a later meeting.