

MILWAUKEE TRANSPORT SERVICES, INC.

Monday, December 3, 2018

ADDENDUM NO: 1
BID NO: RFP MM-09-18 BATTERY ELECTRIC BUS (BEB) VEHICLES
OPENING DATE: DECEMBER 21, 2018 - 2:00 PM (CST)

Attached is a copy of those who attended the pre-proposal meeting on November 29, 2018.

Is there a full electric bus fleet deployment plan or end date?

No. While MCTS has been directed to initiate the transition to electric buses, there is no specific end date and one of the goals of this RFP will help develop a plan as well as address many questions. MTS typically purchases 30 new buses per year – however funding can impact this.

Do you anticipate a 2019 Purchase Order for Electric buses?

Yes, MTS will put out an RFP for electric buses in 2019. These buses would most likely be used on our BRT line which is scheduled to be operational in early 2021. These buses may also be deployed along other specialized MCTS routes.

Have you had any discussions about potential for energy use if you have an electric bus fleet?

Yes, preliminary conversation with WE Energies.

Do you know the current electric use at each facility?

See attached reports showing usage in 2015, 2016 and 2017. Note this usage is for all buildings at each location, not solely the maintenance buildings.

Do you know what style of charging would be used?

No, this RFP will help answer those questions. The awarded vendor will come to Milwaukee and report all the aspects and findings of the analysis to the County Board and MTS; and perhaps also hold public meetings.

Will there be on route charging?

Yes, several locations although this has not been finalized.

Currently how many buses are at each garage?

Fond du lac garage has about 214

Kinnikinic garage has about 171

RFP NO: MM-09-18

Please sign and return one copy with the RFP Documents.

We acknowledge receipt of Addendum #1.

Name

Company Name

Signature

Date

RFP MM-09-18

Analysis of Battery Electric Bus Infrastructure

Name	Business	Email
S Baker	MTS	sbaker@mts.org
DS Hammingsh	Newflyer (via phone)	DS-Hammingsh@newflyer.com
David Warren	"	David-Warren@newflyer.com
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Joe Paul	New Flyer	JPaul@complete.caak.ca
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Nicole Robertus	New Flyer	
Justin Holt	Singh & Associates	jholt@singhinc.com
John Rodgers	Milwaukee County	john.rodgers@milwaukeecountywi.gov

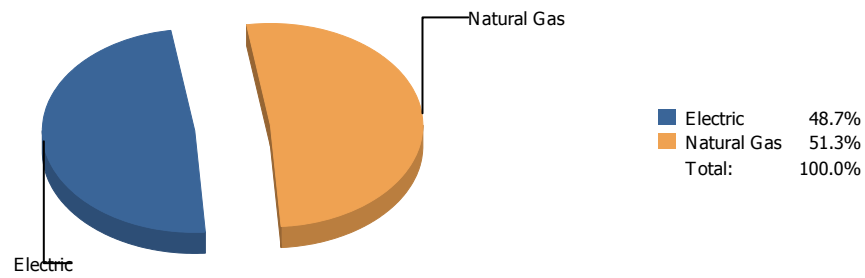
2017 Annual Energy Use & Costs

Fond Du Lac Garage -35th St

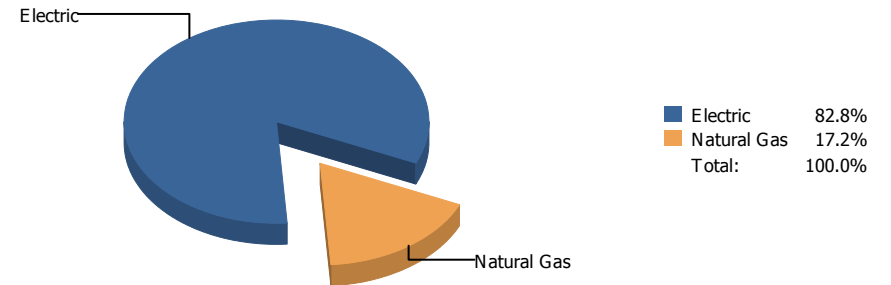
Kinnickinnic Garage -1710 S. KK

Vine St / Fleet Maintenance – 1525 W. Vine St

Energy

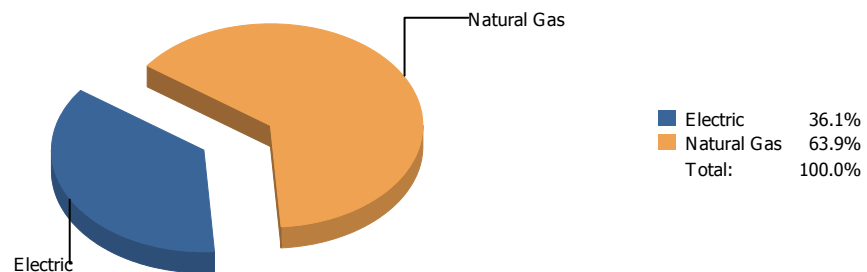


Cost

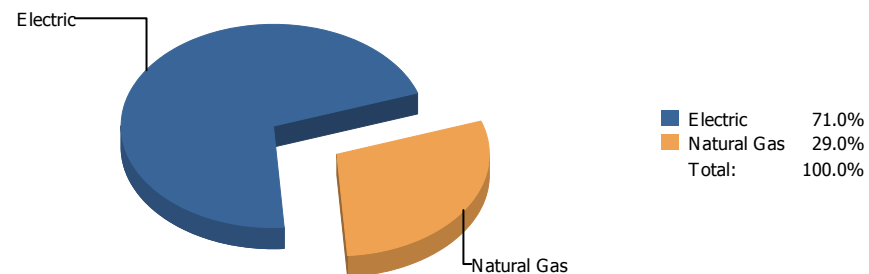


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Vine St / Fleet Maintenance						
Area: 258,373 SqFt						
Billing Period between Jan 2017 and Dec 2017						
ELECTRIC	3,138,983.00 kWh	10,713,349 KBtu	41.465 KBtu/SqFt	\$320,060.95	\$0.102 /kWh	\$1.238 /SqFt
NATURALGAS	112,851.00 THERM	11,285,100 KBtu	43.678 KBtu/SqFt	\$66,626.32	\$0.590 /THERM	\$0.256 /SqFt
Totals:		21,998,449 KBtu	85.142 KBtu/SqFt	\$386,687.27		

Energy

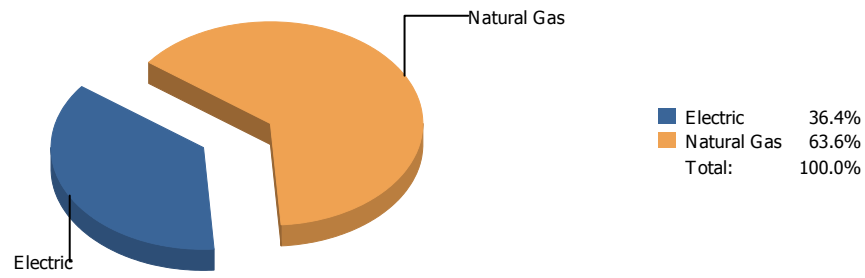


Cost

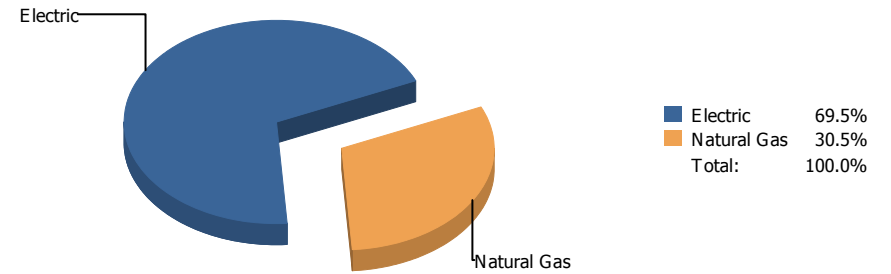


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Kinnickinnic Garage						
Area: 182,153 SqFt						
Billing Period between Jan 2017 and Dec 2017						
ELECTRIC	1,499,660.00 kWh	5,118,340 KBtu	28.099 KBtu/SqFt	\$132,749.49	\$0.089 /kWh	\$0.728 /SqFt
NATURALGAS	90,755.00 THERM	9,075,500 KBtu	49.824 KBtu/SqFt	\$54,333.22	\$0.599 /THERM	\$0.296 /SqFt
Totals:		14,193,840 KBtu	77.923 KBtu/SqFt	\$187,082.71		

Energy

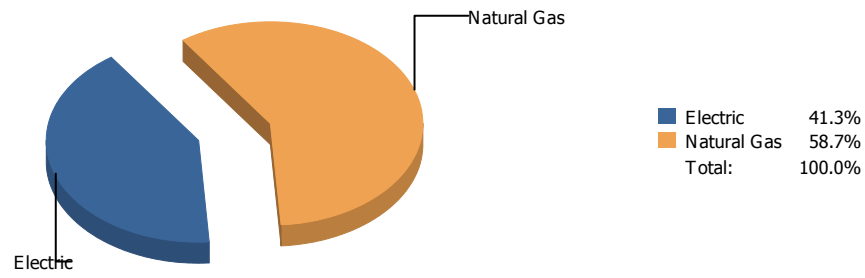


Cost

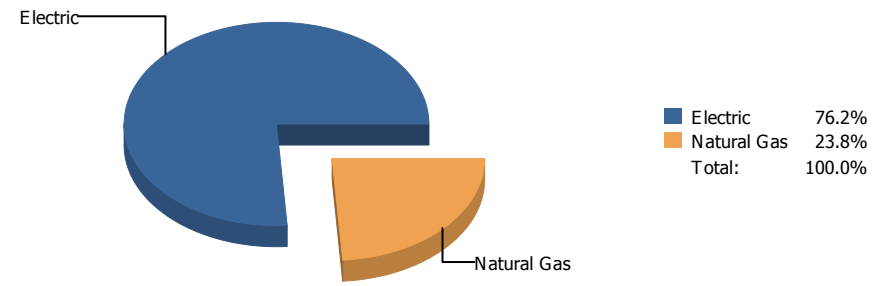


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Fond Du Lac Garage						
Area: 218,489 SqFt						
Billing Period between Jan 2017 and Dec 2017						
ELECTRIC	1,900,160.00 kWh	6,485,246 KBtu	29.682 KBtu/SqFt	\$166,629.03	\$0.088 /kWh	\$0.762 /SqFt
NATURALGAS	113,164.00 THERM	11,316,400 KBtu	51.794 KBtu/SqFt	\$73,028.66	\$0.645 /THERM	\$0.331 /SqFt
Totals:		17,801,646 KBtu	81.476 KBtu/SqFt	\$239,657.69		

Energy



Cost



Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Place Summary Report						
Area: 659,015 SqFt						
Billing Period between Jan 2017 and Dec 2017						
ELECTRIC	6,538,803.00 kWh	22,316,935 KBtu	33.864 KBtu/SqFt	\$619,439.47	\$0.095 /kWh	\$0.940 /SqFt
NATURALGAS	316,770.00 THERM	31,677,000 KBtu	48.067 KBtu/SqFt	\$193,988.20	\$0.612 /THERM	\$0.294 /SqFt
Totals:		53,993,935 KBtu	81.931 KBtu/SqFt	\$813,427.67		

* Please note per area calculations only include buildings with a floor area greater than 0.

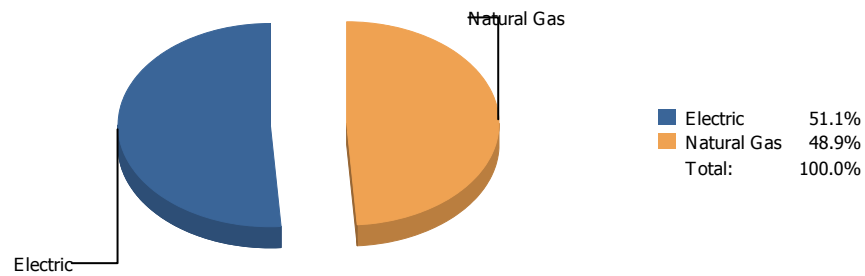
2016 Annual Energy Use & Costs

Fond Du Lac Garage -35th St

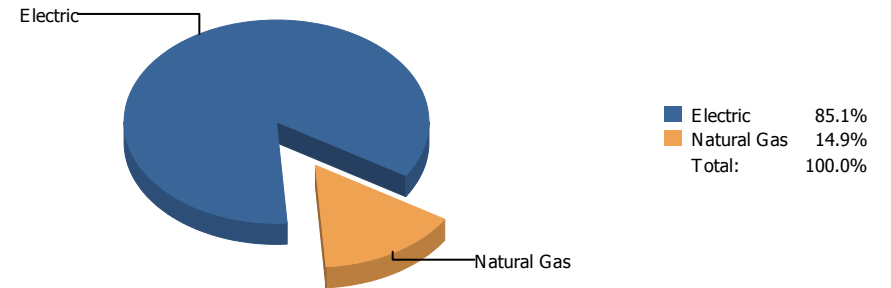
Kinnickinnic Garage -1710 S. KK

Vine St / Fleet Maintenance – 1525 W. Vine St

Energy

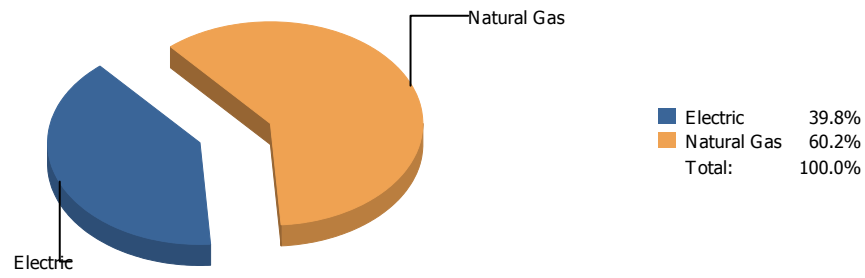


Cost

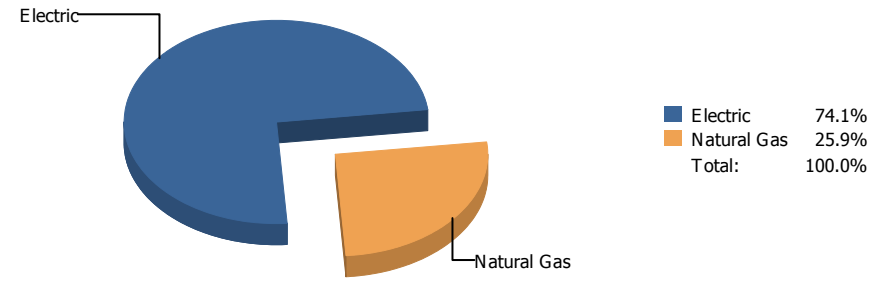


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Vine St / Fleet Maintenance						
Area: 258,373 SqFt						
Billing Period between Jan 2016 and Dec 2016						
ELECTRIC	3,136,131.00 kWh	10,703,615 KBtu	41.427 KBtu/SqFt	\$326,825.97	\$0.104 /kWh	\$1.264 /SqFt
NATURALGAS	102,312.00 THERM	10,231,200 KBtu	39.599 KBtu/SqFt	\$57,046.10	\$0.558 /THERM	\$0.219 /SqFt
Totals:		20,934,815 KBtu	81.026 KBtu/SqFt	\$383,872.07		

Energy

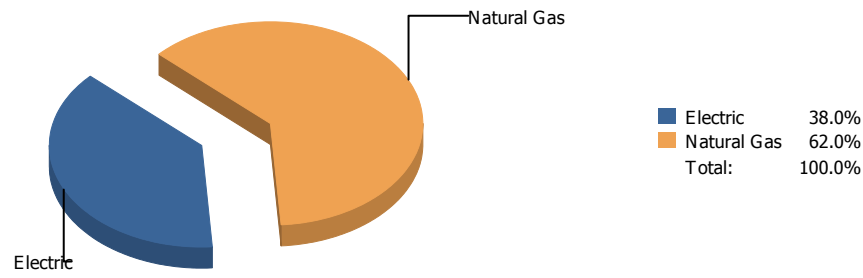


Cost

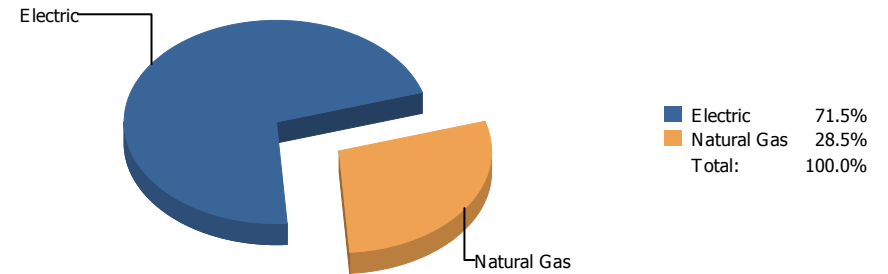


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Kinnickinnic Garage						
Area: 182,153 SqFt						
Billing Period between Jan 2016 and Dec 2016						
ELECTRIC	1,555,695.00 kWh	5,309,587 KBtu	29.149 KBtu/SqFt	\$139,878.00	\$0.090 /kWh	\$0.767 /SqFt
NATURALGAS	80,271.00 THERM	8,027,100 KBtu	44.068 KBtu/SqFt	\$48,794.91	\$0.608 /THERM	\$0.266 /SqFt
Totals:		13,336,687 KBtu	73.217 KBtu/SqFt	\$188,672.91		

Energy

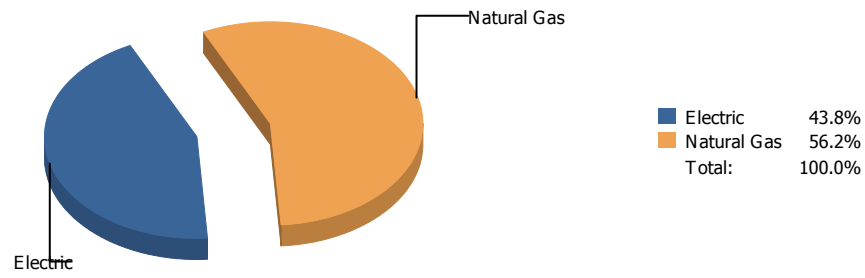


Cost

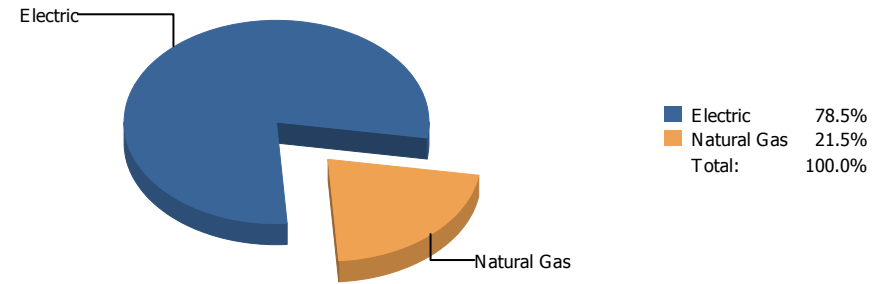


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Fond Du Lac Garage						
Area: 218,489 SqFt						
Billing Period between Jan 2016 and Dec 2016						
ELECTRIC	1,956,840.00 kWh	6,678,695 KBtu	30.568 KBtu/SqFt	\$174,448.03	\$0.089 /kWh	\$0.797 /SqFt
NATURALGAS	109,024.00 THERM	10,902,400 KBtu	49.899 KBtu/SqFt	\$69,459.55	\$0.637 /THERM	\$0.315 /SqFt
Totals:		17,581,095 KBtu	80.467 KBtu/SqFt	\$243,907.58		

Energy



Cost



Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Place Summary Report						
Area: 659,015 SqFt						
Billing Period between Jan 2016 and Dec 2016						
ELECTRIC	6,648,666.00 kWh	22,691,897 KBtu	34.433 KBtu/SqFt	\$641,152.00	\$0.096 /kWh	\$0.973 /SqFt
NATURALGAS	291,607.00 THERM	29,160,700 KBtu	44.249 KBtu/SqFt	\$175,300.56	\$0.601 /THERM	\$0.266 /SqFt
Totals:		51,852,597 KBtu	78.682 KBtu/SqFt	\$816,452.56		

* Please note per area calculations only include buildings with a floor area greater than 0.

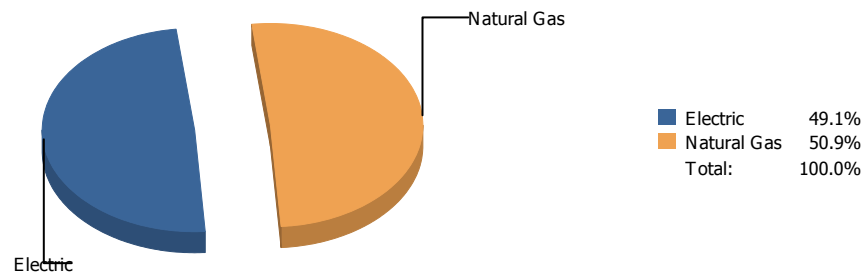
2015 Annual Energy Use & Costs

Fond Du Lac Garage -35th St

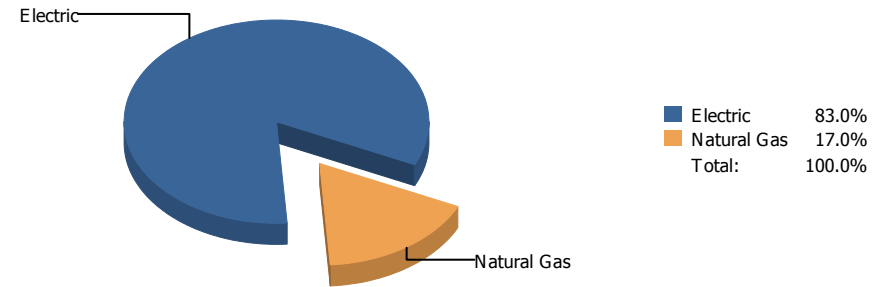
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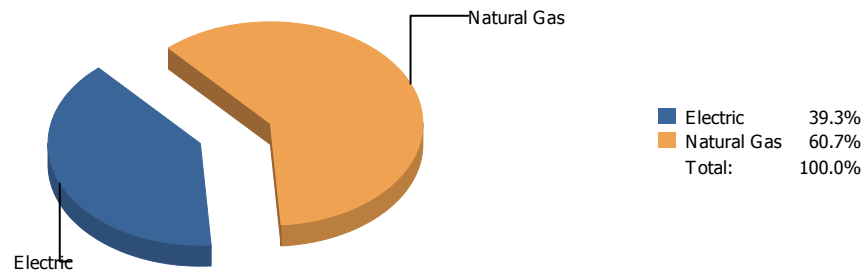


Cost

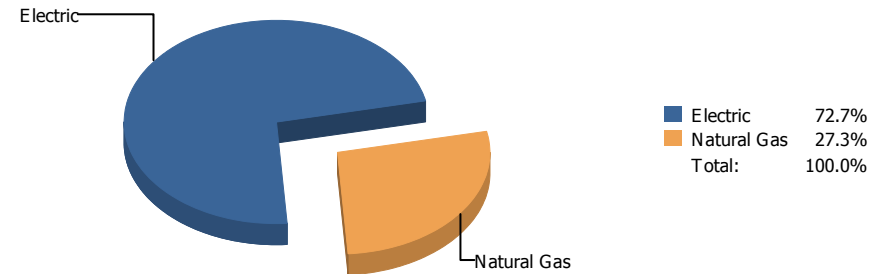


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Vine St / Fleet Maintenance						
Area: 258,373 SqFt						
Billing Period between Jan 2015 and Dec 2015						
ELECTRIC	3,282,452.00 kWh	11,203,009 KBtu	43.360 KBtu/SqFt	\$347,857.61	\$0.106 /kWh	\$1.345 /SqFt
NATURALGAS	116,005.00 THERM	11,600,500 KBtu	44.898 KBtu/SqFt	\$71,034.75	\$0.612 /THERM	\$0.274 /SqFt
Totals:		22,803,509 KBtu	88.258 KBtu/SqFt	\$418,892.36		

Energy

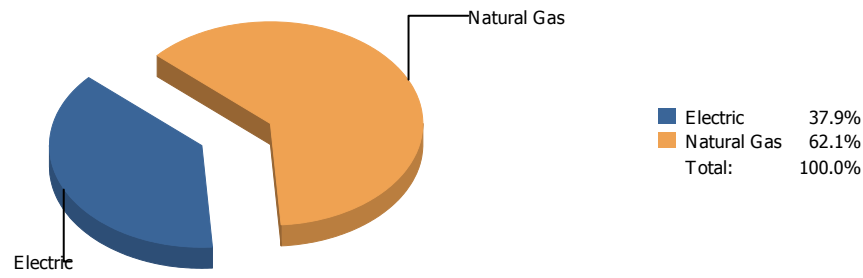


Cost

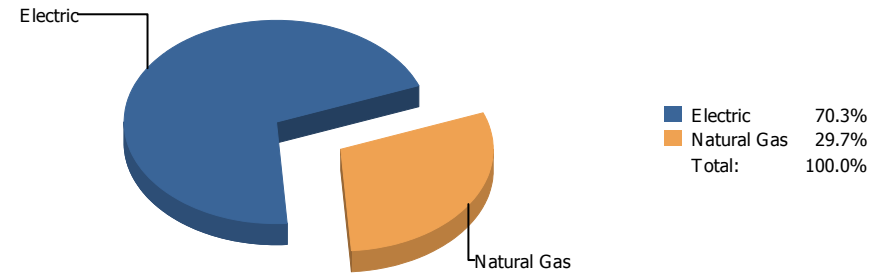


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Kinnickinnic Garage						
Area: 182,153 SqFt						
Billing Period between Jan 2015 and Dec 2015						
ELECTRIC	1,572,762.00 kWh	5,367,837 KBtu	29.469 KBtu/SqFt	\$139,417.92	\$0.089 /kWh	\$0.764 /SqFt
NATURALGAS	82,837.00 THERM	8,283,700 KBtu	45.477 KBtu/SqFt	\$52,411.35	\$0.633 /THERM	\$0.287 /SqFt
Totals:		13,651,537 KBtu	74.945 KBtu/SqFt	\$191,829.27		

Energy

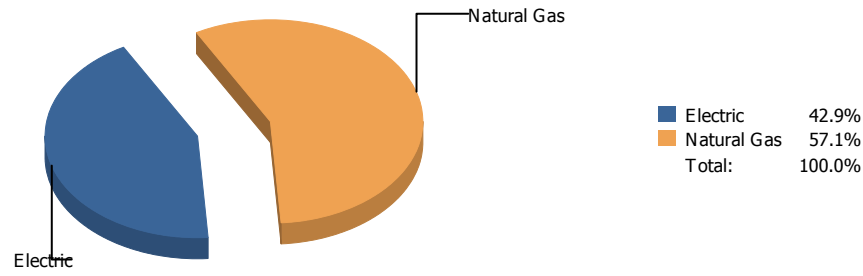


Cost

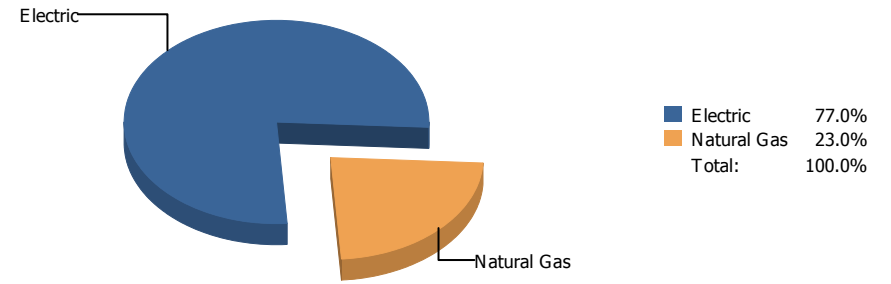


Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Fond Du Lac Garage						
Area: 218,489 SqFt						
Billing Period between Jan 2015 and Dec 2015						
ELECTRIC	2,015,680.00 kWh	6,879,516 KBtu	31.487 KBtu/SqFt	\$180,051.15	\$0.089 /kWh	\$0.823 /SqFt
NATURALGAS	112,900.00 THERM	11,290,000 KBtu	51.673 KBtu/SqFt	\$76,165.69	\$0.675 /THERM	\$0.345 /SqFt
Totals:		18,169,516 KBtu	83.160 KBtu/SqFt	\$256,216.84		

Energy



Cost



Commodity	Common Use	Energy Use	Energy Use / Area	Total Cost	Cost / Unit	Cost / Area
Place Summary Report						
Area: 659,015 SqFt						
Billing Period between Jan 2015 and Dec 2015						
ELECTRIC	6,870,894.00 kWh	23,450,361 KBtu	35.584 KBtu/SqFt	\$667,326.68	\$0.097 /kWh	\$1.013 /SqFt
NATURALGAS	311,742.00 THERM	31,174,200 KBtu	47.304 KBtu/SqFt	\$199,611.79	\$0.640 /THERM	\$0.303 /SqFt
Totals:		54,624,561 KBtu	82.888 KBtu/SqFt	\$866,938.47		

* Please note per area calculations only include buildings with a floor area greater than 0.