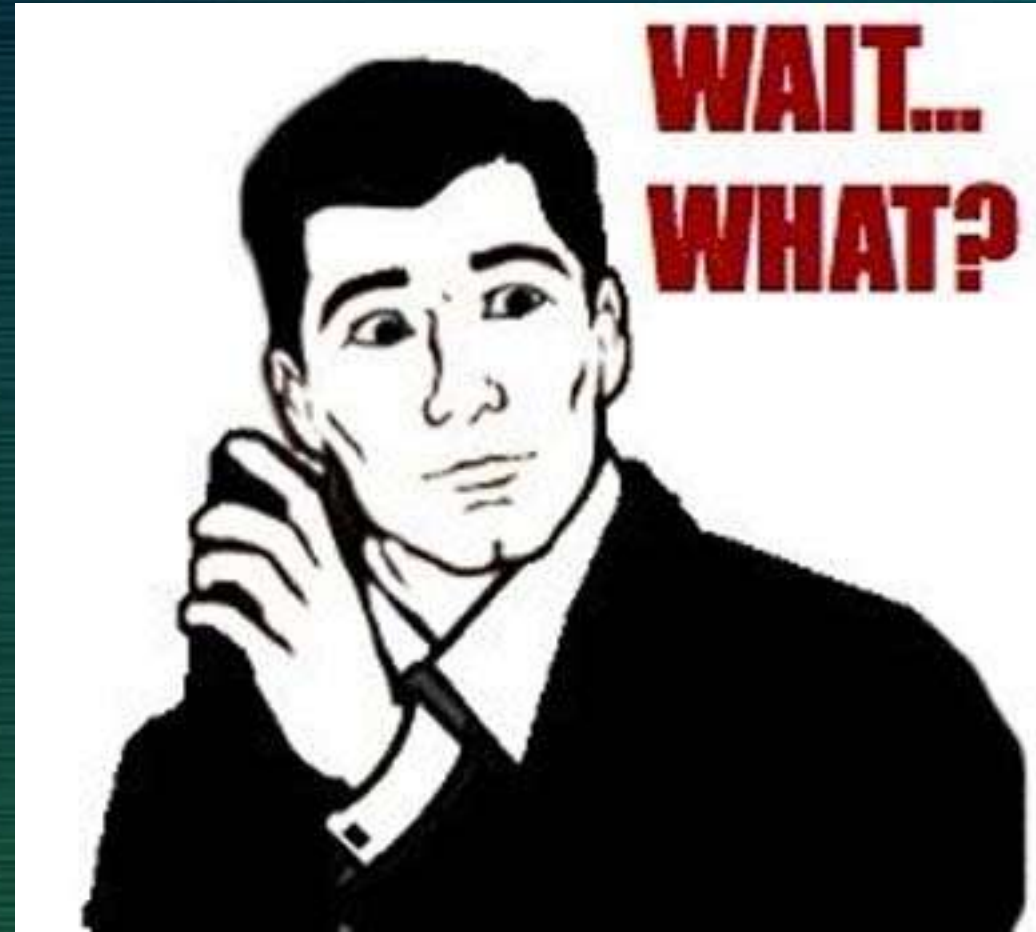


# How to Translate Energy Bills

Sandra Diorka

Delhi Charter Township



# Disclaimers

- I am not an electrical person
- I understand the rate structure but not the technical electrical “stuff”
- The calculation examples will be “pretend”
  - I understand Horse Power does NOT equal kilowatts
- I will be translating Delhi Charter Township’s electric bill/rate
  - Consumer’s Power full service customer
  - Service rate is General Service Primary Demand Rate GPD Voltage Level 3

# Where To Start

- Determine what company supplies your power
  - Consumer's Energy
    - Go to the website
      - Go to the business section
        - About your bill
          - Your bill, explained (click on “learn more”)
            - Scroll down and click on “Rate book for Electric Service”
- DTE Energy
- Electric Customer Choice
  - Utilize “Big Guy’s” distribution system
  - Buy electrons from someone else

# How to Find Your "Rate"

Form 381a - 8-2013  
(Form Page 2 of 2)

PAGE 1 OF 1

45041

9/21

198

19 09/17



Need to talk to us? Visit [ConsumersEnergy.com](http://ConsumersEnergy.com)  
or call **800-805-0490**  
Hearing/speech impaired: Call 7-1-1

Service Address:  
5961 McCue Rd; Holt MI 48842-8651

Account: **1000 0034 2509**

## Account Information

Bill Month: September  
Service dates: 08/19/2017 - 09/19/2017  
Days Billed: 32  
Portion: 78 09/17

## Rate Information

**Elec Gen Pri Rate GPD Com**

Rate: 1220

**Customer Voltage Level: 3**

Billing Demand: 304.0  
Curr Max kW: 304.0  
Historical Max kW: 361.0  
Power Factor: 0.93

## Meter Information

Your next scheduled meter read  
date is on or around 10/20/2017

## Electric Service:

Standard Meter  
Meter Number: 6711409  
POD Number: 0000003554328  
Beginning Read Date: 08-19  
Ending Read Date: 09-19  
Beginning Read: 8889  
Ending Read: 9146 (Actual)  
Differential: 257  
Constant: 600  
Usage: 154200 kWh

Total Metered Energy Use: 154200 kWh  
Recorded Actual Interval Usage: 154549 kWh  
Total Recorded Interval Usage: 154549 kWh

## September Energy Bill

Invoice: 205365516300

## Account Summary

Last Month's Account Balance	\$14,299.08
Payment on September 05, 2017	<del>\$14,299.08</del>
Balance Forward	\$0.00

Payments applied after Sep 22, 2017 are not included.

## Electric Charges

On-Peak Billing Demand kW	304@22.240000	\$6,760.96
On-Peak Energy	34452@ 0.052166	\$1,797.22
Off-Peak Energy	120097@ 0.034298	\$4,119.09
PSCR	154549@ 0.003780-	\$584.20-
System Access		\$200.00
Max Demand kW	361@ 4.920000	\$1,776.12
Energy Efficiency		\$1,028.53
Power Plant Securitization	154549@ 0.000609	\$125.03
Power Factor Credit		\$69.35-
Low-Income Assist Fund		<del>\$0.93</del>

**Total Electric** \$15,154.33

**Total Energy Charges** \$15,154.33

## Amount Due:

by October 16, 2017

**\$15,154.33**

If you pay after the due date, a 2% late payment charge  
will be added to your next bill.

Please make any inquiry or complaint about this bill before the due date listed on the front.  
Visit [ConsumersEnergy.com/aboutmybill](http://ConsumersEnergy.com/aboutmybill) for details about the above charges.

# After you find your Rate – look it up in the Rate Book

## CONSUMERS ENERGY COMPANY

### RATE BOOK FOR ELECTRIC SERVICE

These Standard Rules and Regulations and Rate Schedules contained herein have been adopted by the Company to govern its relations with customers and have been approved by the Michigan Public Service Commission as an integral part of its Rate Book for Electric Service.

Copies of the Company's Rate Book for Electric Service are available on Consumers Energy Company's website at the following website address, [http://www.consumersenergy.com/tariffs.nsf/ELECTRIC\\_TARIFFS?OpenView](http://www.consumersenergy.com/tariffs.nsf/ELECTRIC_TARIFFS?OpenView) or at the Michigan Public Service Commission's website at the following website address, [http://www.michigan.gov/mpsc/0,1607,7-159-16377\\_52818\\_53477-214344--,00.html](http://www.michigan.gov/mpsc/0,1607,7-159-16377_52818_53477-214344--,00.html)

#### Territory

This Rate Book for Electric Service applies to the entire territory served with Electricity by the Company.

**THIS RATE BOOK SUPERSEDES AND CANCELS RATE BOOK**

**M.P.S.C. No. 12 - Electric**

# What are the different “charges”??

## **Capacity Charges**

- On-Peak Billing Demand
- Max Demand

## **Energy Charges**

- On-Peak
- Off-Peak

## **Delivery Charge**

- System Access Charge

## **Power Factor Adjustment**

- Credit
- Penalty

## **Surcharges**

- Energy Efficiency Program Surcharge
- Low Income Energy Assistance

## **Power Supply Cost Recovery (PSCR)**

## **Securitization Charges**

## **Securitization Tax Charges**

## **Power Plant Securitization Charges**

## **Interim Rate Increase**

## **Various Charges and Credits**

- Michigan Utility Commission Decisions

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Capacity  
Charges

# On-Peak Billing Demand

Based on highest on-peak  
demand created during the  
billing month

Kilowatts supplied during the 15-  
minutes period of maximum use  
during on-peak hours.

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\$22.24/kW

June – September

\$21.24/kW

October - May

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Capacity  
Charge

# Maximum Demand Charge

The Maximum Demand shall be the highest 15-minute demand created during the current month or previous 11 months.

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\$4.92/kW

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# How Do They Determine Maximum Demand?

Header data of profile		Profile values			
Number of EDM profile	000000000010002156	From-date	From-time	Profile value	
Name of Profile	KWH_0880520002	7/13/2015	12:00:00 AM	66.96	267.84
Profile type	KWH MEASURED CONSUMPTION	7/13/2015	12:15:00 AM	69.48	277.92
Profile value category	QUANTITY	7/13/2015	12:30:00 AM	70.2	280.8
Time zone	EST	7/13/2015	12:45:00 AM	69.84	279.36
Unit of measurement	kwh	7/13/2015	1:00:00 AM	66.6	266.4
Interval length ID	15	7/13/2015	1:15:00 AM	68.04	272.16
Interval length	15 minutes	7/13/2015	1:30:00 AM	69.12	276.48
Profile valid from	1/1/1900	7/13/2015	1:45:00 AM	68.76	275.04
Profile valid to	12/31/9999	7/13/2015	2:00:00 AM	65.88	263.52
Prof. vals available from	1/4/2007	7/13/2015	2:15:00 AM	66.96	267.84
Prof. values available to	6/21/2016	7/13/2015	2:30:00 AM	66.96	267.84
		7/13/2015	2:45:00 AM	65.88	263.52
		7/13/2015	3:00:00 AM	65.52	262.08
		7/13/2015	3:15:00 AM	64.8	259.2
		7/13/2015	3:30:00 AM	65.52	262.08
		7/13/2015	3:45:00 AM	65.52	262.08
		7/13/2015	4:00:00 AM	65.16	260.64
		7/13/2015	4:15:00 AM	62.64	250.56
		7/13/2015	4:30:00 AM	64.8	259.2
		7/13/2015	4:45:00 AM	64.44	257.76
		7/13/2015	5:00:00 AM	64.08	256.32
		7/13/2015	5:15:00 AM	62.64	250.56
		7/13/2015	5:30:00 AM	63.72	254.88
		7/13/2015	5:45:00 AM	61.92	247.68
		7/13/2015	6:00:00 AM	59.04	236.16
		7/13/2015	6:15:00 AM	57.24	228.96

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Energy  
Charges

June –  
September

\$0.052166 per kWh  
during Peak

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\$0.034298 per kWh  
during Off-Peak

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October -  
May

\$0.042407 per kWh  
during Peak

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\$0.037135 per kWh  
during Off-Peak

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# Delivery Charge

## System Access Charge

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\$200.00 per month

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# Power Factor Adjustment

Determined through metering of lagging Kilo-var-hours and Kilowatt-hours during the billing period.

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≥0.9 credit equals 0.5% of all metered-based charges excluding surcharges

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<0.849 a penalty will be charged

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0.800 – 0.849 0.5%

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0.750 – 0.799 1.00%

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0.700 – 0.749 2.00%

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Surcharges

Energy  
Efficiency  
Program  
Surcharge

Reimburse for energy  
efficiency incentives  
offered to customers

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\$1,028.53/meter

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Low Income  
Energy  
Assistance

Reimburse for assisting  
low income customers

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\$0.93/meter

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Power  
Supply  
Cost

Allows provider to pass on fuel  
price changes

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Recovery  
(PSCR)

Amount changes every month

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$\$/\text{total kWhs of consumption}$

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Can be a credit

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Securitization  
Charges

Allows provider to pass on price of  
bonding for improvements

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\$/total kWhs of consumption

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Securitization  
Taxes

If you are a government you  
should not pay this tax. Send them  
your tax exempt certificate for a  
refund.

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## Interim Rate Increase

Allows provider to pass on a rate increase BEFORE it is approved by the Michigan Utility Commission

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\$/total kWhs of consumption

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If the rate is not approved or approved for a lower amount; you will see a credit

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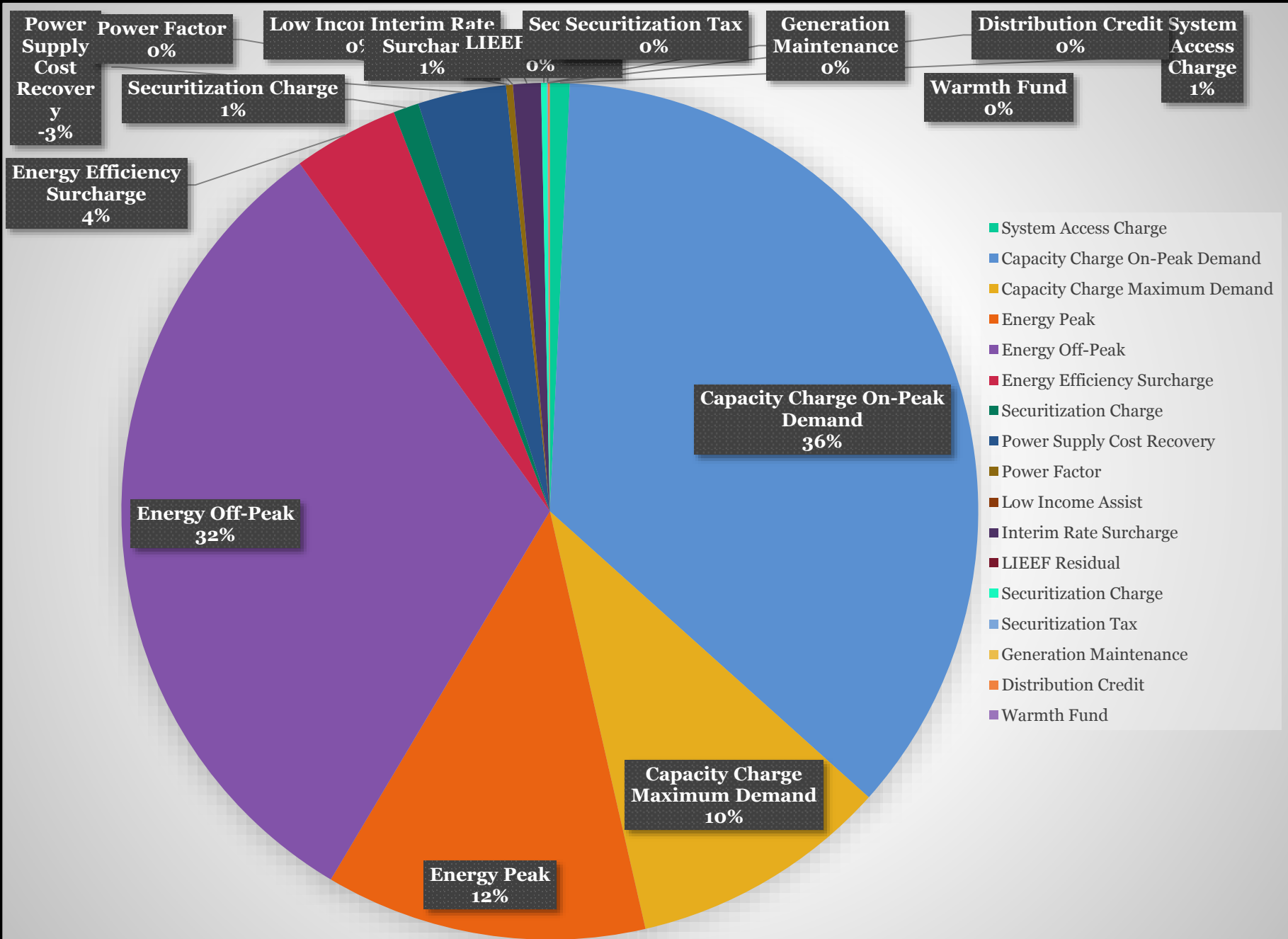
## Various Charges and Credits

Michigan Utility Commission Decisions

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Bill will cite a U-##### This is the case number before the Commission. You can look it up on the MUC web site. Sometimes Consumer's wins and there is a charge and sometimes someone else wins and there is a refund.

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**Story Problem:** Suppose an operator mistakenly turns on a 100 HP pump at 11:30 am on Monday September 1. This causes a new maximum demand. You realize it and turn it off at 11:45 am. How much extra will this cost?

<b>September bill</b>			
On Peak Demand	100 kW	\$22.24/kW	\$2,224.00
Maximum Demand	100 kW	\$4.92/kW	\$492.00
On Peak Energy	25 kWh	\$0.052166/kWh	\$1.30
Securitization	25 kWh	\$0.000809/kWh	\$0.02
PSCR	25 kWh	\$-0.00378/kWh	-\$0.09
Next 11 Month's bills			
Maximum Demand	100 kW	\$4.92/kW	\$5,412.00
		<b>Total Extra Cost</b>	<b><u>\$8,129.23</u></b>