

Energy Data Management

High Country Conservation Center

Trident Energy Services



Governor's
Energy Office



RECHARGE
COLORADO

Utility Bills 101



- Goal: Review your utility bill as you would your credit card statement.
- Understanding your utility bill:
 - Makes data tracking easy.
 - May highlight opportunities to reduce charges.
 - May identify abnormalities in energy use/charges.

Sample Utility Bill from Xcel Energy

Customer Name	Service Address	Account No.	Date Due	Amount Due
[REDACTED]	[REDACTED]	53-1010171-8	Mar 22, 2010	\$486.54

Account Activity

Date of Bill	Mar 5, 2010	Previous Balance	\$499.61
Number of Payments Received	1	Total Payments	<u>(\$499.61)</u>
Number of Days in Billing Period	30	Balance Forward	\$0.00
Statement Number	230528980	+ Current Bill	<u>\$486.54</u>
Premise Number	300041770	Current Balance	\$486.54

Electric Service - Account Summary

Invoice Number	0312332180	Commercial Service	3655.00 x 0.031200	\$114.04
Meter No	000036009373	GRSA		\$54.86
Rate	C Commercial Service	Trans Cost Adj	3655.00 x 0.000060	\$0.22
Days in Bill Period	29	Elec Commodity Adj	3655.00 x 0.029340	\$107.24
Current Reading	9531 Actual 03/04/2010	Demand Side Mgmt Cost	3655.00 x 0.001390	\$5.08
Previous Reading	5876 Actual 02/03/2010	Purch Cap Cost Adj	3655.00 x 0.012650	\$46.24
Kilowatt-Hours Used	3655	Service & Facility		\$7.85
Measured Demand	12.066 kW Actual	Renew. Energy Std Adj		\$6.70
Billed Demand	12 kW	Subtotal		\$342.23
		Franchise Fee	3.00%	\$10.27
		Sales Tax		<u>\$27.41</u>
		Total Amount		\$379.91

Gas Service - Account Summary

Invoice Number	0151539772	Commercial		
Meter No.	0000R916193	Usage Charge	105.00 x 0.135333	\$14.21
Rate	CG-T Commercial	Interstate Pipeline	105.00 x 0.084000	\$8.82
Days in Bill Period	29	Natural Gas 1 Qtr	105.00 x 0.489200	\$51.37
Current Reading	368 Actual 03/05/2010	Service & Facility		<u>\$21.65</u>
Previous Reading	235 Actual 02/04/2010	Subtotal		\$96.05
Measured Usage	133	Franchise Fee	3.00%	\$2.88
Therm Multiplier	0.7892	Sales Tax		<u>\$7.70</u>
Therms Used	105.0	Total Amount		\$106.63

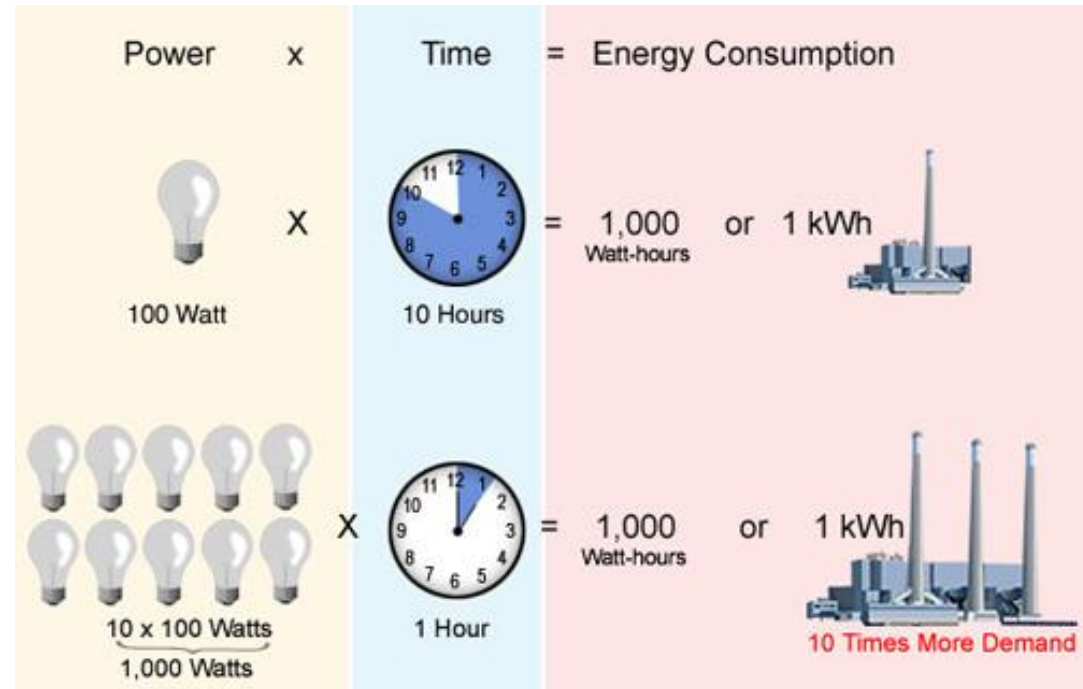
Comparison Information

	Gas	Electric	Billing Period	Kwh Usage/Month	Therm Usage	Avg. Daily Temp.
This Year	\$106.63 per month	\$3.68 per day	This Year	3655	105	14°
Last Year	\$279.91 per month	\$12.10 per day	Last Year	2000	60	11°

Electricity: Two Units of Measure

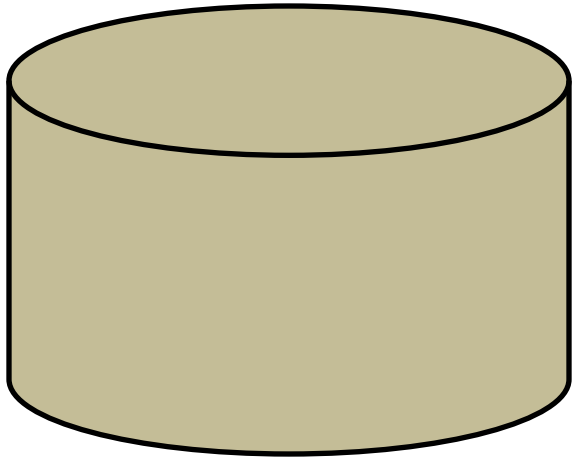
- Power = kW
- Energy consumed = kWh
- Relationship:

$$\text{kW} * \text{time} = \text{kWh}$$

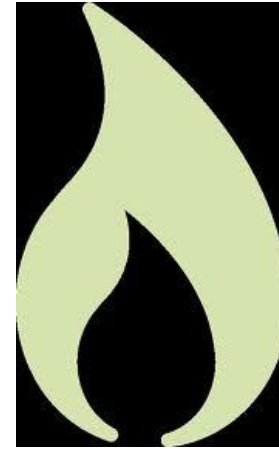


Natural Gas Units

Measured by volume or heat/energy content.



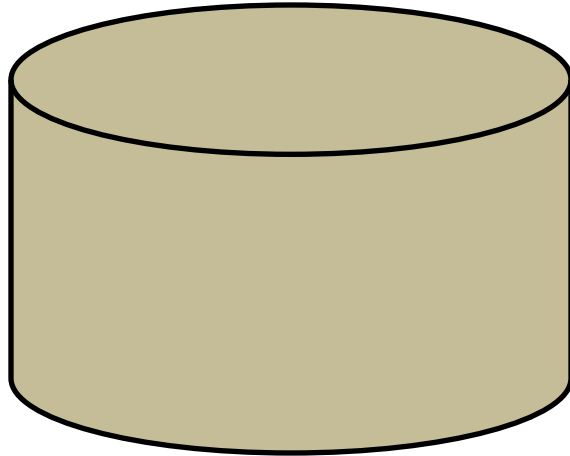
100 cubic feet (CCF)
1,000 cubic feet (MCF)



Therms (Th)
10 therms or dekatherms (Dth)
Million British thermal unit (MMBtu)

Propane Units

Measured by volume.



Gallons (gal)

Utility Bill Terms: Commercial Rate Class

- Commercial rate class (C): Based on monthly kWh use. Applies to businesses that use < 25 kW.
- Commercial service: Use charge as cost per kilowatt-hour (\$/kWh) of electricity.
 - Two charges: winter and summer season.
 - Total electric cost = commercial service + taxes & adjustments

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Premise Number	300041770	Current Balance	\$486.54

Electric Service - Account Summary

Invoice Number	0312332190	Commercial Service	3655.00 x 0.031200	\$114.04
Meter No	000036009373	GRSA		\$54.86
Rate	C Commercial Service	Trans Cost Adj	3655.00 x 0.000060	\$0.22
Days in Bill Period	29	Elec Commodity Adj	3655.00 x 0.029340	\$107.24
Current Reading	9531 Actual 03/04/2010	Demand Side Mgmt Cost	3655.00 x 0.001390	\$5.08
Previous Reading	5676 Actual 02/03/2010	Purch Cap Cost Adj	3655.00 x 0.012650	\$46.24
Kilowatt-Hours Used	3655	Service & Facility		\$7.85
Measured Demand	12.066 kW Actual	Renew. Energy Std Adj		\$6.70
Billed Demand	12 kW	Subtotal		\$342.23
		Franchise Fee	3.00%	\$10.27
		Sales Tax		\$27.41
		Total Amount		\$379.91

Gas Service - Account Summary

Invoice Number	0151539772
Meter No.	00000R916193
Rate	CG-T Commercial
Days in Bill Period	29
Current Reading	368 Actual 03/05
Previous Reading	235 Actual 02/04
Measured Usage	133
Therm Multiplier	0.7892
Therms Used	105.0

Actual price/kwh = \$.094/kwh
Including all adjustments and fees
Adjustments and fees vary depending on Kwh used

Franchise Fee	3.00%	\$2.88
Sales Tax		\$7.70
Total Amount		\$106.63

Comparison Information

			Billing Period	Kwh Usage/Month	Therm Usage	Avg. Daily Temp.
Gas	\$106.63 per month	\$3.68 per day	This Year	3655	105	14°
Electric	\$379.91 per month	\$13.10 per day	Last Year	3688	80	21°

Utility Bill Terms: **Secondary Gen**

- Secondary general rate class (SG): Based on monthly kWh use and measured/billed demand. Only applies to businesses that use > 25 kW and <500 kW in a given 15 minute period.
- Secondary Gen: Use charge and demand charge.
 - Two charges: winter and summer season
 - Total electric cost = secondary gen + demand + taxes & adjustments

Sample Utility Bill from Xcel Energy

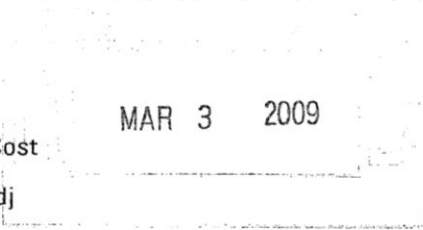
Customer Name [REDACTED]	Service Address [REDACTED]	Due Date Mar 13, 2009	Account No. [REDACTED]	Amount Due \$1,065.03
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Account Activity

Date of Bill	Feb 26, 2009	Previous Balance	\$1,258.10
Number of Payments Received	1	Total Payments	(\$1,258.10)
Number of Days in Billing Period	29	Balance Forward	\$0.00
Statement Number	[REDACTED]	+ Current Bill	\$1,065.03
Premise Number	[REDACTED]	Current Balance	\$1,065.03

Electric Service - Account Summary

Invoice Number	[REDACTED]	Secondary Gen		\$41.57
Meter No.	[REDACTED]	GRSA		\$27.68
Rate	SG	Secondary Gen	Demand	\$176.40
Current Reading	54112	Actual 02/26/2009	Air Quality Imp	\$5.93
Previous Reading	48357	Actual 01/28/2009	Trans Cost Adj	\$4.83
Kilowatt-Hours Used	5755		Elec Commodity Adj	\$116.54
Measured Demand	20.561	kW Actual	Demand Side Mgmt Cost	\$24.99
Billed Demand	21	kW	Purch Cap Cost Adj	\$89.46
			Renew. Energy Std Adj	\$9.75
			Franchise Fee	\$14.91
			Sales Tax	\$5.12
			Subtotal	\$517.18



Gas Service - Account Summary

Invoice Number	[REDACTED]	Commercial		
Meter No.	[REDACTED]	Usage Charge	680.00 x 0.13517	\$91.91
Rate	CG-T	Commercial	Interstate Pipeline	680.00 x 0.09940
Current Reading	83197	Actual 02/26/2009	Natural Gas - Feb	595.70 x 0.50640
Previous Reading	82349	Actual 01/28/2009	Natural Gas - Jan	84.30 x 0.52000
Measured Usage	848		Service & Facility	\$21.63
Therm Multiplier	0.8020		Franchise Fee	\$15.80
Therms Used	680.00		Sales Tax	\$5.42
			Subtotal	\$547.85

Comparison Information

			Billing Period	Kwh Usage/Month	Therm Usage	Avg. Daily Temp.
Gas	\$547.85 per month	\$18.89 per day	This Year	5755	680	27°
Electric	\$517.18 per month	\$17.83 per day	Last Year	7075	821	15°

Utility Bill Terms: Natural Gas Use



- Therms used: Based on monthly amount of natural gas used.
 - Converted from Ccf (hundred cubic feet) to therms using therm multiplier.
- Usage charge: Cost of natural gas used.
 - Total gas cost = usage charge + interstate pipeline + monthly commodity cost + fees and taxes

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Current Reading	9531 Actual 03/04/2010	Demand Side Mgmt Cost	3655.00 x 0.001390	\$5.08
		Cost Adj	3655.00 x 0.012650	\$46.24
		Facility		\$7.85
		Energy Std Adj		\$6.70
				<u>\$342.23</u>
		Fee	3.00%	\$10.27
				<u>\$27.41</u>
		Amount		\$379.91

Actual price/therm = \$.914/therm
Including all adjustments and fees
Adjustments and fees vary depending on therms
used

Gas Service - Account Summary

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Measured Usage	133	Franchise Fee	3.00%	\$2.88
Therm Multiplier	0.7802	Sales Tax		\$7.70
Therms Used	105.0	Total Amount		\$106.63

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Utility Bill Terms: Electricity Taxes and Fees



- Demand side mgmt cost
 - Pass-through charge for Xcel's energy efficiency rebate programs
- Renew energy std adj
 - Pass-through charge for Xcel's renewable energy rebate programs
- Trans cost adj
 - Fee to cover transmission

Utility Bill Terms: Electricity Taxes and Fees



- Franchise fee
 - Pass-through charge, 3% of bill, to pay City to use streets and alleys

Understanding Your Utility Bill Will Save You Energy and \$

You are charged for:

- Electricity use
- Peak demand (SG customers, only)
- Renewable energy standard adj
- General rate schedule adjustment
- Air quality improvement
- Transmission cost adjustment
- Electricity commodity adjustment
- Demand side management costs
- Purchase cap cost adjustment
- Electricity franchise fee
- Sales tax for electricity
- Natural gas use
- Natural gas distribution
- Interstate pipeline
- Metering and billing
- Natural gas franchise fee
- Sales tax for natural gas

**In Commercial class, taxes and fees are 60% but
All charges are based on how much energy you consume.**