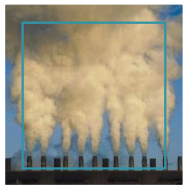
Pillars of Sustainability Pledge

Moving from sustaining to flourishing through how we operate.

It has become a race to the top of sustainability performance.

- Reduce waste and pollution
- Protect our waterways
- Optimize use of energy and materials
- Invest in our community



Why we measure

An active approach to corporate sustainability reaps value in the form of reputation building, cost savings, and growth opportunities.

- Value
- Engagement
- Trust
- Competitive Advantage
- New generation employees

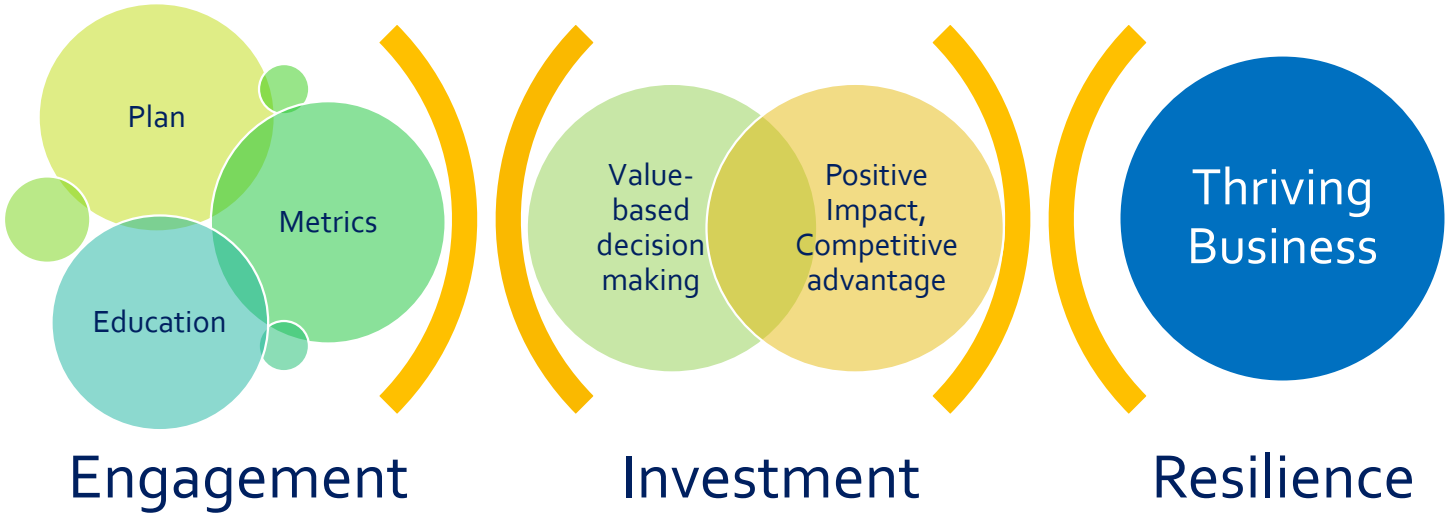
.

Metrics that matter

Corporate goals are being aligned with environmental and social responsibility.

Consumers and investors are paying attention.

- Accountability & transparency to stakeholders
- Improving public perception and brand image
- Improving processes, culture, and sustainability technology
- Competitive Advantage
- Staying current with best practices and benchmarking performance

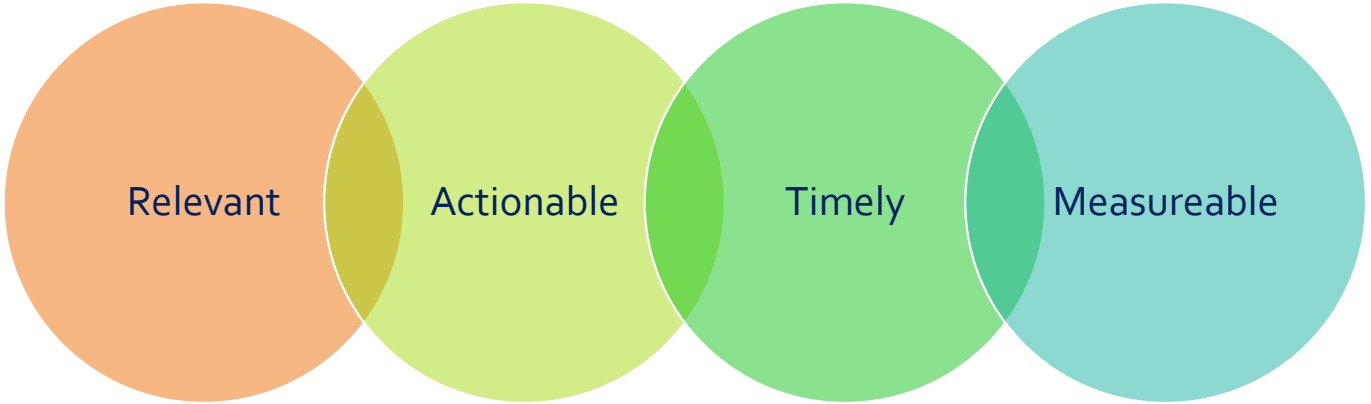


Metrics that matter

Internal corporate metrics are developed to meet specific business needs.

Companies that communicate not only their successes, but challenges, emerge as strong business leaders.

- Defining metrics specific to organization
- The relationship between the types of metrics and thriving business
- Regulation can become part of solution
- Limitations, transparency, relevance
- Importance of tracking vs progress

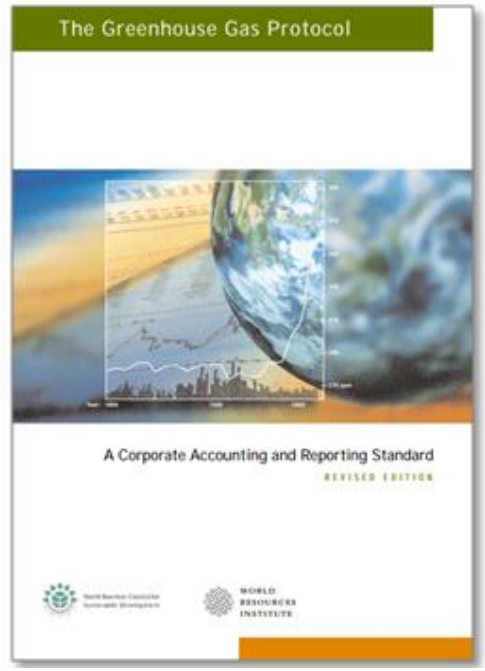


Industry Guidelines

As companies undergo the evolution of sustainability reporting standards and metrics, the presence of targets are less illuminating than whether or not companies are tracking issues.

- Guidelines

- Tools
  - DOE
  - FEMP
  - EPA
    - WasteWise
    - Portfolio Manager
    - WaterSense
    - Regulatory
    - Small business
  - EIA
  - CBECS
  - International Organization for Standardization (ISO)



Resources

Metrics should be aligned with goals. What are you trying to achieve, and will these metrics give you useful information for that effort.

- https://www.sce.com/wps/wcm/connect/a80ab052-b9a6-41d8-895e-95443877725a6/BenchmarkingGuide.pdf?MOD=AJPERES
- http://www4.uwm.edu/shwec/recyclingtoolkit/PDF/EPATheMeasureofSuccess_CalculatingWasteReduction.pdf
- http://carbonfund.org/how-we-calculate
- http://www3.epa.gov/watersense/commercial/index.html
- http://www.energy.gov/eere/femp/energy-and-cost-savings-calculators-energy-efficient-products
- http://www.epa.gov/cleanenergy/energy-resources/calculator.html
- https://www.globalreporting.org/resourcelibrary/English-Lets-Report-Template.pdf
- http://www3.epa.gov/epawaste/conserve/tools/warm/Warm_Form.html
- https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager
- https://www.eia.gov/
- http://www.eia.gov/consumption/commercial/data/2003/#b1
- http://www.nist.gov/

SBR Metrics

Metrics are not just used for demonstrating progress or telling a good story.

Metrics are used to gather information for future decisions, understanding how programs are working, and for accountability

- Electricity Consumed (kWh/year)
- Alternative Energy Produced (kWh/year)
  - Include Renewable Energy Certificate (REC)s
- Total Fleet Fuel Consumption (gals/year)
- Total GHG Emissions (OPTIONAL) (metric tons CO_2 equiv./year)
- Water Consumed / Purchased (gals/year)
- Solid Waste Produced (lbs/year)
- Employee Volunteerism in Community (hours/year)

Example

Define, determine, engage. Using metrics to inspire new thinking, innovation, and action.

- Electricity Blended Rate
  - Customer
  - Demand
  - Energy

  - Energy Intensity
  - Leased Assets
    - Ex. Tenant space 37,000 sqft, total building 100,000 sqft., 100% occupied = 37% total consumption
    - Ex. Tenant space 37, 000 sqft, total building 100,000 sqf, 50% unoccupied = 74% total consumption

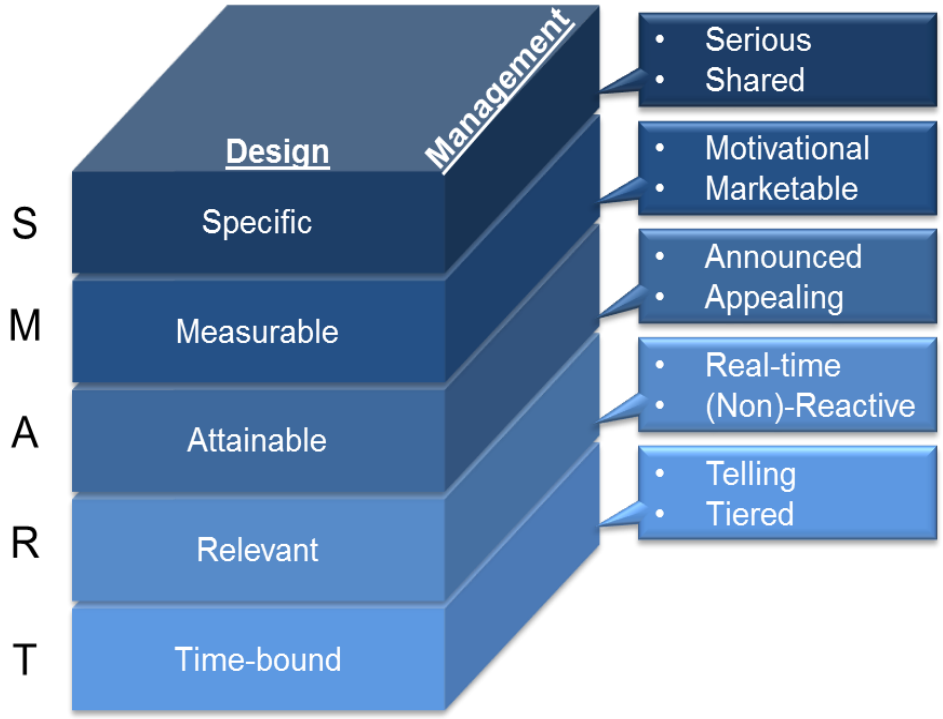
  - Assumptions are critical
    - Replicative
    - Transparent
    - Communication

Establishing Performance Metrics

Plan performance metrics should answer the following questions:

- Are we executing our strategy?
- If we are not executing or do not know, what are the leading indicators that we will need to provide this information?
- Do we have the right strategy in place?

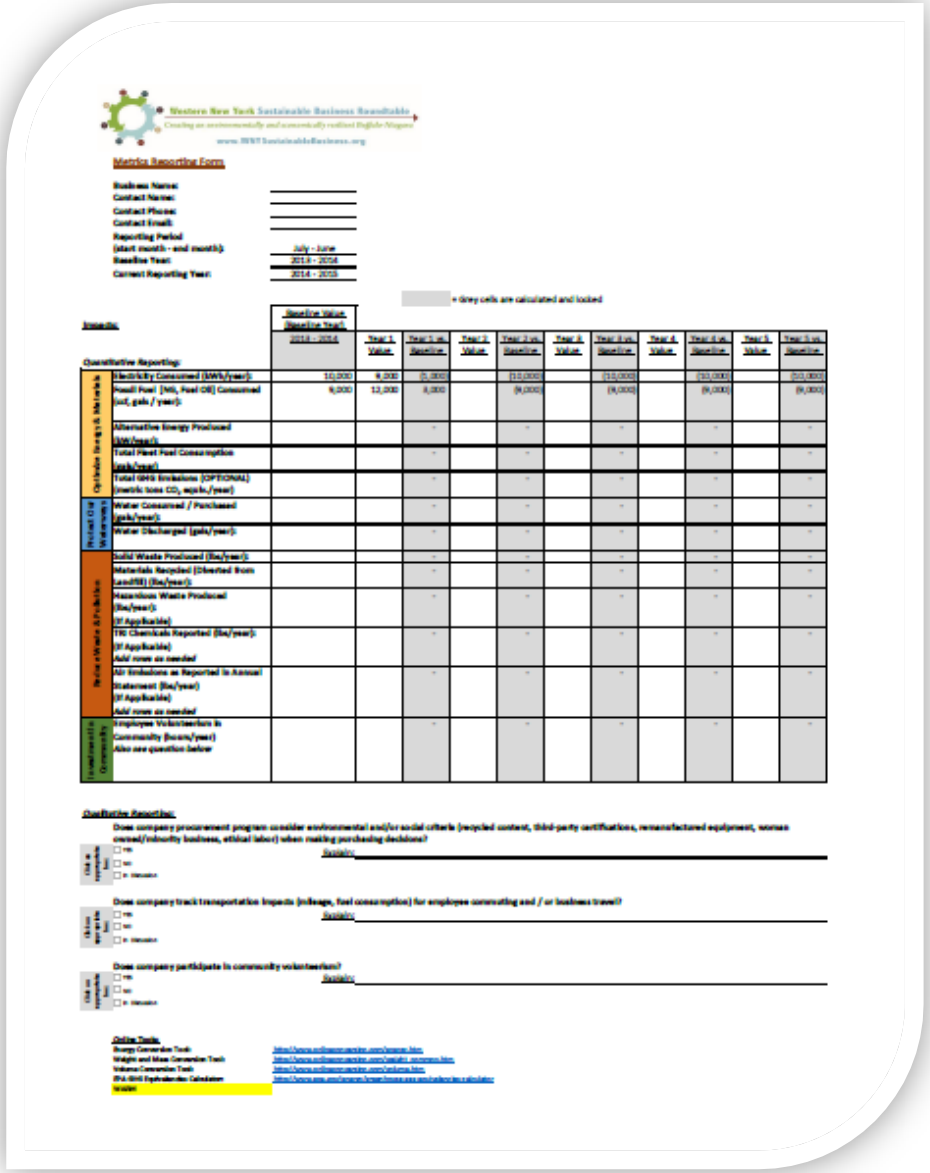
Metrics must be visible and well integrated with business process



Source: Chris Davis, METIS Strategy (2013) "Managing Through Metrics: The Other Sides of SMART."

WNYSBR Metrics Reporting Form

Creating a baseline allows for a better understanding of potential efficiencies.



Western New York Sustainable Business Roundtable

Metrics Reporting Form

Business Name:
Contact Name:
Contact Phone:
Contact Email:
Reporting Period (start month - end month):
Baseline Year:
Current Reporting Year:

July - June
2013 - 2014
2014 - 2015

= shaded cells are calculated and locked

Impacts		Baseline Value Baseline Year: 2013 - 2014	Year 1 Value	Year 1 vs. Baseline	Year 2 Value	Year 2 vs. Baseline	Year 3 Value	Year 3 vs. Baseline	Year 4 Value	Year 4 vs. Baseline	Year 5 Value	Year 5 vs. Baseline
Quantitative Reporting:												
Carbon Energy & Metrics	Electricity Consumed (kWh/year):	10,000	9,000	(1,000)		(10,000)		(10,000)		(10,000)		(10,000)
	Fossil Fuel (NG, Fuel Oil) Consumed (oil, gals / year):	9,000	12,000	3,000		(9,000)		(9,000)		(9,000)		(9,000)
	Alternative Energy Produced (kW/year):			-		-		-		-		-
	Total Fleet Fuel Consumption (gals/year)			-		-		-		-		-
	Total GHG Emissions (OPTIONAL) (metric tons CO_2 eqvls./year)			-		-		-		-		-
Potable Use Wastewater	Water Consumed / Purchased (gals/year):			-		-		-		-		-
	Water Discharged (gals/year):			-		-		-		-		-
Waste Reduction Practices	Solid Waste Produced (lbs/year):			-		-		-		-		-
	Materials Recycled (Diverted from Landfill) (lbs/year):			-		-		-		-		-
	Hazardous Waste Produced (lbs/year): (If Applicable)			-		-		-		-		-
	TRI Chemicals Reported (lbs/year): (If Applicable) Add' rows as needed			-		-		-		-		-
	Air Emissions as Reported in Annual Statement (lbs/year) (If Applicable) Add' rows as needed			-		-		-		-		-
Involvement in Community	Employee Volunteerism in Community (hours/year) Also see question below			-		-		-		-		-

Qualitative Reporting:

Does company procurement program consider environmental and/or social criteria (recycled content, third-party certifications, remanufactured equipment, woman owned/minority business, ethical labor) when making purchasing decisions?

Yes / No / In Transition

Explain:

Does company track transportation impacts (mileage, fuel consumption) for employee commuting and / or business travel?

Yes / No / In Transition

Explain:

Does company participate in community volunteerism?

Yes / No / In Transition

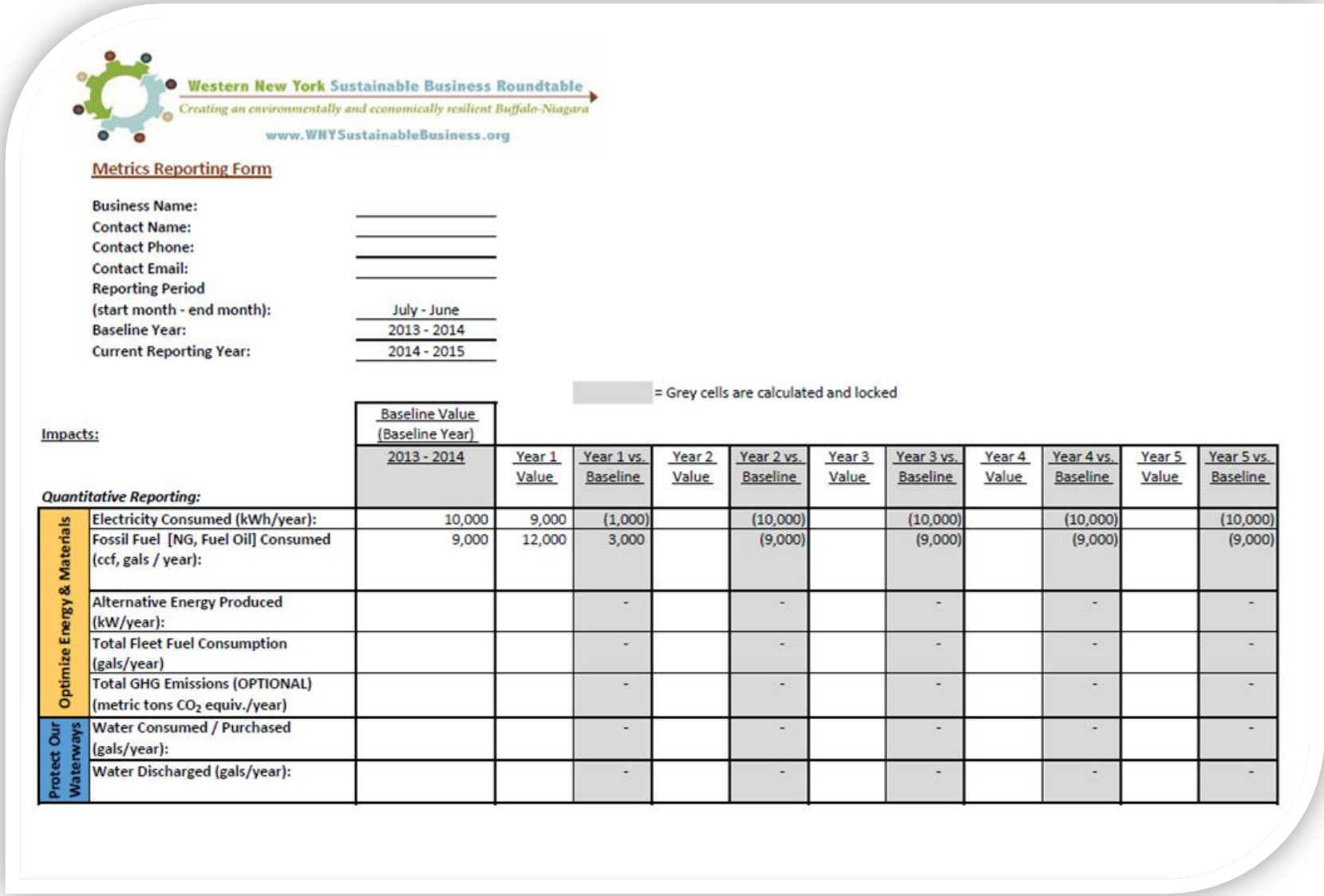
Explain:

Online Tools:

Energy Conversion Tool:	http://www.onlineconversion.com/energy.htm
Weight and Mass Conversion Tool:	http://www.onlineconversion.com/weight_common.htm
Volume Conversion Tool:	http://www.onlineconversion.com/volume.htm
EPA GHG Equivalencies Calculator:	http://www.epa.gov/cleanenergy/energy-resources/calculator.html
Water:	

WNYSBR Metrics Reporting Form

Annual reporting serves as a mechanism to capture savings from both project specific initiatives and overall sustainability objectives.



Western New York Sustainable Business Roundtable
Creating an environmentally and economically resilient Buffalo-Niagara
www.WNYSustainableBusiness.org

Metrics Reporting Form

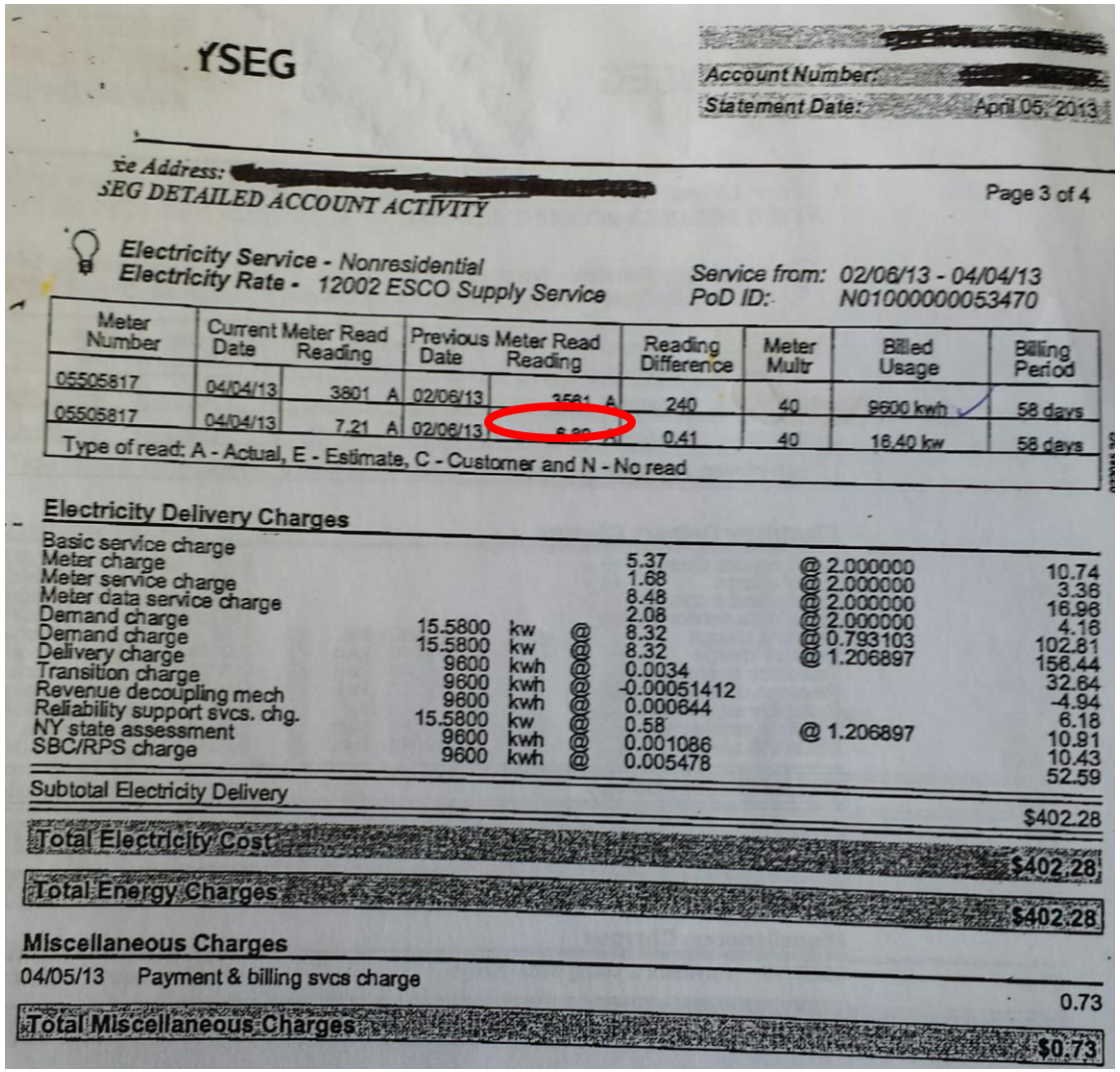
Business Name: _____
Contact Name: _____
Contact Phone: _____
Contact Email: _____
Reporting Period
(start month - end month): July - June
Baseline Year: 2013 - 2014
Current Reporting Year: 2014 - 2015

= Grey cells are calculated and locked

Impacts:		Baseline Value (Baseline Year) 2013 - 2014	Year 1 Value	Year 1 vs. Baseline	Year 2 Value	Year 2 vs. Baseline	Year 3 Value	Year 3 vs. Baseline	Year 4 Value	Year 4 vs. Baseline	Year 5 Value	Year 5 vs. Baseline
Quantitative Reporting:												
Optimize Energy & Materials	Electricity Consumed (kWh/year):	10,000	9,000	(1,000)		(10,000)		(10,000)		(10,000)		(10,000)
	Fossil Fuel [NG, Fuel Oil] Consumed (ccf, gals / year):	9,000	12,000	3,000		(9,000)		(9,000)		(9,000)		(9,000)
	Alternative Energy Produced (kW/year):			-		-		-		-		-
	Total Fleet Fuel Consumption (gals/year)			-		-		-		-		-
	Total GHG Emissions (OPTIONAL) (metric tons CO_2 equiv./year)			-		-		-		-		-
Protect Our Waterways	Water Consumed / Purchased (gals/year):			-		-		-		-		-
	Water Discharged (gals/year):			-		-		-		-		-

Electric Utility Bill Example - kWh

Understanding the resources readily available for reporting.



YSEG

Account Number: [redacted]

Statement Date: April 05, 2013

ice Address: [redacted]

SEG DETAILED ACCOUNT ACTIVITY

Page 3 of 4

Electricity Service - Nonresidential
Electricity Rate - 12002 ESCO Supply Service

Service from: 02/06/13 - 04/04/13
PoD ID: N01000000053470

Meter Number	Current Meter Read Date	Reading	Previous Meter Read Date	Reading	Reading Difference	Meter Multr	Billed Usage	Billing Period
05505817	04/04/13	3801 A	02/06/13	[redacted] A	240	40	9600 kwh	58 days
05505817	04/04/13	7.21 A	02/06/13	[redacted]	0.41	40	16.40 kw	58 days

Type of read: A - Actual, E - Estimate, C - Customer and N - No read

Electricity Delivery Charges

Basic service charge				5.37	@ 2.000000	10.74
Meter charge				1.68	@ 2.000000	3.36
Meter service charge				8.48	@ 2.000000	16.96
Meter data service charge				2.08	@ 2.000000	4.16
Demand charge	15.5800	kw	@	8.32	@ 0.793103	102.81
Demand charge	15.5800	kw	@	8.32	@ 1.206897	156.44
Delivery charge	9600	kwh	@	0.0034		32.64
Transition charge	9600	kwh	@	-0.00051412		-4.94
Revenue decoupling mech	9600	kwh	@	0.000644		6.18
Reliability support svcs. chg.	15.5800	kw	@	0.58	@ 1.206897	10.91
NY state assessment	9600	kwh	@	0.001086		10.43
SBC/RPS charge	9600	kwh	@	0.005478		52.59

Subtotal Electricity Delivery $402.28

Total Electricity Cost $402.28

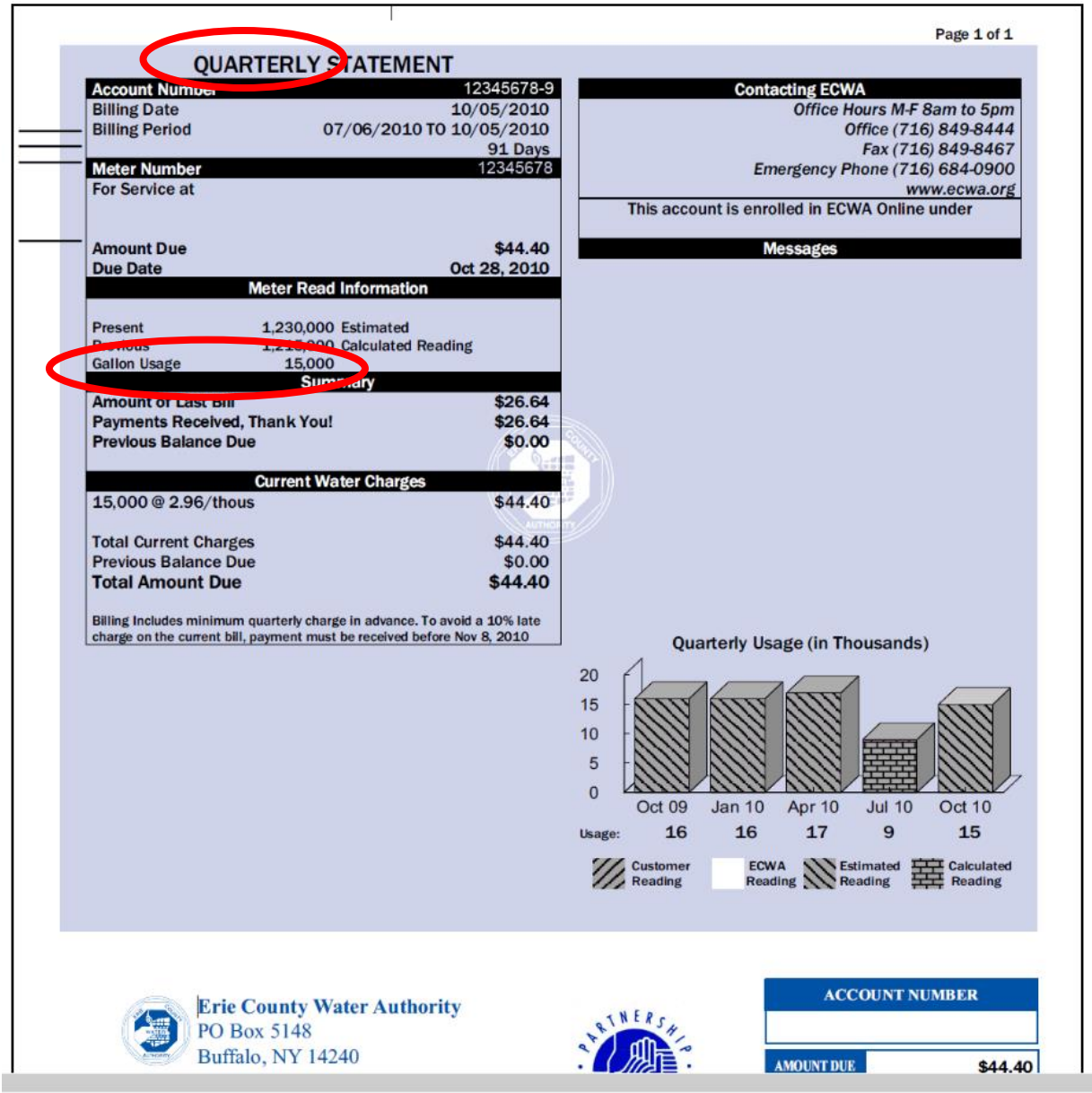
Total Energy Charges $402.28

Miscellaneous Charges

04/05/13 Payment & billing svcs charge 0.73

Total Miscellaneous Charges $0.73

Water Utility Bill Example - Gallons



Page 1 of 1

QUARTERLY STATEMENT

Account Number	12345678-9
Billing Date	10/05/2010
Billing Period	07/06/2010 TO 10/05/2010
	91 Days
Meter Number	12345678
For Service at	
Amount Due	$44.40
Due Date	Oct 28, 2010

Meter Read Information

Present	1,230,000	Estimated
Previous	1,215,000	Calculated Reading
Gallon Usage	15,000	

Summary

Amount of Last Bill	$26.64
Payments Received, Thank You!	$26.64
Previous Balance Due	$0.00

Current Water Charges

15,000 @ 2.96/thous	$44.40
Total Current Charges	$44.40
Previous Balance Due	$0.00
Total Amount Due	**$44.40**

Billing Includes minimum quarterly charge in advance. To avoid a 10% late charge on the current bill, payment must be received before Nov 8, 2010

Contacting ECWA

Office Hours M-F 8am to 5pm
Office (716) 849-8444
Fax (716) 849-8467
Emergency Phone (716) 684-0900
www.ecwa.org

This account is enrolled in ECWA Online under

Messages

Quarterly Usage (in Thousands)

Erie County Water Authority
PO Box 5148
Buffalo, NY 14240

PARTNERSHIP

ACCOUNT NUMBER

AMOUNT DUE $44.40

WNYSBR Metrics Reporting Form

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Impacts:		Baseline Value (Baseline Year)										
Quantitative Reporting:		2013 - 2014	Year 1 Value	Year 1 vs. Baseline	Year 2 Value	Year 2 vs. Baseline	Year 3 Value	Year 3 vs. Baseline	Year 4 Value	Year 4 vs. Baseline	Year 5 Value	Year 5 vs. Baseline
Reduce Waste & Pollution	Solid Waste Produced (lbs/year):			-		-		-		-		-
	Materials Recycled (Diverted from Landfill) (lbs/year):			-		-		-		-		-
	Hazardous Waste Produced (lbs/year): (If Applicable)			-		-		-		-		-
	TRI Chemicals Reported (lbs/year): (If Applicable) *Add rows as needed*			-		-		-		-		-
	Air Emissions as Reported in Annual Statement (lbs/year) (If Applicable) *Add rows as needed*			-		-		-		-		-
Investment in Community	Employee Volunteerism in Community (hours/year) *Also see question below*			-		-		-		-		-

WNYSBR Metrics Reporting Form

Qualitative Reporting:

Does company procurement program consider environmental and/or social criteria (recycled content, third-party certifications, remanufactured equipment, woman owned/minority business, ethical labor) when making purchasing decisions?

Click on appropriate box

☐ YES
☐ NO
☐ In Discussion

Explain: _____

Does company track transportation impacts (mileage, fuel consumption) for employee commuting and / or business travel?

Click on appropriate box

☐ YES
☐ NO
☐ In Discussion

Explain: _____

Does company participate in community volunteerism?

Click on appropriate box

☐ YES
☐ NO
☐ In Discussion

Explain: _____

Online Tools:

Energy Conversion Tool:	http://www.onlineconversion.com/energy.htm
Weight and Mass Conversion Tool:	http://www.onlineconversion.com/weight_common.htm
Volume Conversion Tool:	http://www.onlineconversion.com/volume.htm
EPA GHG Equivalencies Calculator:	http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Next step: Taking Action

A long term sustainability plan is ineffective without an action plan. Key next steps include:

- Identifying resources for taking action
- Establishing an ongoing communication plan
  - Internal and external plans will likely differ
- Evaluating performance against plan targets
- Conducting management reviews
- Continuous improvement
  - Understanding of both current state and future trends is dynamic, so resulting plan should be viewed as a living document

WNY Sustainable Roundtable Reporting- *Member commitment.*

In a survey of 272 executives across 24 industries, 76% anticipate natural resource shortages will affect their core business objectives over the next 3-5 years.

- On-going assistance to develop plans
- Metrics Template- SBR Website
- Templates due March 31, 2016

- Questions?
- Break-out group discussions

Thank You!

Aliesa Adelman, CSDP, LEED AP BD+C
Sustainable Design Coordinator
Wendel

aadelman@wendelcompanies.com

Trish Donohue, MS, QEP
Senior Pollution Prevention Engineer
Sustainable Supply Chain Program Manager

New York State Pollution Prevention Institute, at
Rochester Institute of Technology

Patricia.Donohue@RIT.edu
(585)425-4638

NYSP2I: http://www.rit.edu/affiliate/nysp2i/