



Book Guide

MEASURE WHAT MATTERS

CHAPTER SIX



PRACTICAL SUSTAINABILITY

How-to Guide: Measure What Matters

Chapter 6

Chapter 6 is the most critical in your sustainability journey. Whether or not your organization is actively pursuing sustainability goals, tracking your usage and waste *must* become a routine practice.

“You can’t change what you don’t measure.” (Practical Sustainability, p. 114)

Identifying Metrics You Want to Track

Start Simple. Start Now.

Begin with data you can easily access today—usually your monthly utility bills.

Metric Category	Data Source	Units Used	Tools to Use
Energy Usage	Electric and gas bills, submeters (if any)	kWh, therms, BTUs, \$	Excel, EPA Portfolio Manager
Water Consumption	Water bills, internal water meters	Gallons, CCF, \$, usage per process	EPA Portfolio Manager, submeters
Waste	Hauler reports, bills, internal weights/estimates	Tons, yards ³ , \$	Hauler invoices, custom Excel sheet
Fleet & Transport	Fuel receipts, mileage logs	Gallons, CO ₂ emissions, \$	Fleet management software, Excel
Procurement	Purchasing reports	% sustainable products	ERP or procurement platform
Employee Engagement	Surveys, training logs, volunteer hours	% completed, total hours	Survey tools, LMS reports

Tip: Use simple, consistent units—ideally those used by the utility. Use KISS: Keep It Simple, Stupid.

The Process – Track, Analyze, Report

1. Enter Data

- Collect data **monthly**—don't wait until the end of the quarter.
- Set a **routine reminder** when your bills arrive.
- Involve the finance department—they already receive bills and understand cost structure.
- Interns can also help with entry and trend spotting.
- Use the “Metrics Input” tab in the Excel Workbook or EPA Portfolio Manager.

2. Analyze

- Start with comparisons: this month vs. last month, this year vs. last year.
- Look for spikes or dips. Investigate before drawing conclusions.
- Be prepared for seasonal variability or business fluctuations.

Internal Metering Bonus

Add internal meters to pinpoint specific areas of concern. Examples:

- Water meters on irrigation systems
- Electricity submetering on production lines
- Scale for weighing baled recyclables
- Tip: Utilities often offer free meters or tools to support usage tracking.

3. Report Out

- Use visuals—bar charts, pie charts, line graphs—people understand pictures.
- Keep reports short and to the point for non-technical audiences.
- Save detailed data for Q&A or appendices.
- Report intangible benefits: awards, press coverage, employee feedback.

Use the “Trend Graphs” tab in the Excel Workbook.

Calculating ROI (Return on Investment)

Basic ROI Formula:

$$\text{ROI} = (\text{Annual Savings} - \text{Project Cost}) / \text{Project Cost}$$

Example:

LED Retrofit

- Cost: \$5,000
- Annual Savings: \$2,000
- ROI: $(2000 - 5000) / 5000 = -60\%$ (Year 1)
- Payback in 2.5 years

Use the “ROI Calculator” tab in the Excel Workbook.

Tools & Resources

Tool	Purpose	Notes
EPA Portfolio Manager	Energy, water, waste tracking	Free, benchmark-friendly
Excel Starter Workbook	Custom tracking and ROI analysis	Use template included in this guide
Submeters/Internal Meters	Specific process-level monitoring	Check with utility for free options
Survey Tools (e.g., Google Forms)	Employee engagement tracking	Easy to use, export to Excel
Fleet Tracking Software	Fuel/mileage/emission tracking	Evaluate based on fleet size

What Gets Tracked Gets Improved

Intangible Benefits to Record

- Media mentions
- Awards and certifications
- Staff and community feedback
- Compliance improvements
- Risk reduction

Add these to the “Intangible Benefits” tab of your Workbook.

Real World Example

Issue: Huge spike in water usage

Cause: Maintenance valve left open

Solution: Installed visual valve, updated SOPs, added internal water meters

Outcome: Reduced water waste, more granular tracking, improved SOP compliance

Tips for Success

- Monthly rhythm = fewer errors, quicker detection
- Use a checklist and calendar reminders
- Collaborate with others—finance, facilities, interns
- Always question unexpected numbers
- Track even if you're not running a program—this will uncover process errors

Final Thought

If you want to save money, earn credibility, win awards, reduce risk, and improve your organization’s reputation—**track everything**. Because, once again: “You can’t change what you don’t measure.” (Practical Sustainability, p. 114)

Metrics Access & ROI Primer

What Metrics Should You Pull?

Start with what you can access today:

- **Energy Usage**
 - Monthly electric and gas bills
 - Submetering data (if available)
- **Water Consumption**
 - Gallons per day, per facility or process
- **Waste**
 - Tonnage of landfill, recycling, compost
 - Hauler reports or invoice breakdowns
- **Fleet or Transportation**
 - Fuel consumption, mileage, delivery emissions
- **Procurement**
 - % of sustainable products purchased
- **Employee Engagement**
 - Survey results, volunteer hours, training completion rates

ROI Calculation Walk-Through

Use this general formula:

$$\text{ROI} = (\text{Annual Savings} - \text{Project Cost}) / \text{Project Cost}$$

Example: LED Retrofit

- **Project Cost:** \$5,000
- **Annual Savings:** \$2,000
- **ROI:** $(\$2,000 - \$5,000) / \$5,000 = -60\%$ (Year 1), but payback in 2.5 years

Include:

- Simple Payback Period: $\text{Project Cost} / \text{Annual Savings}$
- Net Present Value (NPV) for longer-term investments
- Include non-energy O&M cost savings when relevant

Broader ROI Framing - Beyond Dollars

Projects often yield benefits that go beyond hard savings. These should be documented and shared:

- **Brand Value:** Public commitments, awards, media mentions
- **Compliance Risk Reduction:** Anticipating regulatory trends
- **Employee Retention:** Engaged teams stay longer
- **Customer Loyalty:** Aligns with buyer expectations
- **Resilience:** Reduced dependence on volatile fuel markets

How to Use This Sheet

- As a reference during project proposal and business case creation
- To inform conversations with finance, procurement, and executives
- As a training primer for new team members

Excel Starter Workbook - Sheet Outline

Workbook Title: Metrics & ROI Tracking Template

Sheet Name	Purpose
Metrics Input	Manually enter monthly energy, water, and waste data
ROI Calculator	Auto-calculates ROI for proposed projects using user-entered costs/savings
Trend Graphs	Visualizes 12-month usage and cost data
Project Log	Tracks completed projects, dates, responsible parties, outcomes
Intangible Benefits	Notes and quotes on non-financial returns (employee feedback, press coverage, etc.)
