2012 Energy Management Workshop

Time (Minutes)	*Topic*
8:00	Introductions & Lessons learned from last year
8:30	Overview of Energy Management Framework – Assess, Commit, Plan, Implement, Capitalize
8:40	Assessment • Self-assessment • Audits • Benchmarking and data collection • Prior successes
9:10	Break
9:20	Duke Energy Campaign and Behavior Change around Energy Elena Alschuler, MIT graduate student
10:00	Break
10:10	Commitment and Planning • Executive commitment • Team • Opportunities and potential impact decision framework • Action Plan • Capital Budget
10:30	EDF Fellows – identifying opportunities, Jana Holt and Jeannette Yee
10:50	Next Steps & Survey

A BETTER CITY
CHALLENGE for SUSTAINABILITY
Business and Institutional Leaders Working Toward a Sustainable City

A Better City

CHALLENGE for SUSTAINABILITY

Business and Institutional Leaders Working Toward a Sustainable City

Energy Management Plan

2013

This plan outlines _____'s energy management strategy including an analysis, a commitment and a plan to increase efficiencies and reduce overall energy use. Our strategy includes multiple categories of energy management: measurement, benchmarking, internal communications, training and more.

Insert Company Logo

Contents

Executive Summary

XXX is committed to improving its energy performance and reducing its overall energy use. This plan details key energy management strategy including an assessment of current practices, analysis of current demand, our desired goals, and strategies for increasing efficiencies and changing behavior to lower overall energy use at <insert facility name>. Our strategy this year will focus on <pick top 3 areas from spider assessment>.

To further our efforts, XXXX has developed this plan in collaboration with A Better City (ABC). Through our participation in ABC's Challenge for Sustainability; a voluntary environmental initiative working with facilities throughout Greater Boston, XXXX participated in a yearlong energy management plan series that guided us through our assessment and development of this plan. This plan will be reviewed on an annual basis to ensure progress is being made and to update as necessary.

2012 Energy Management Workshop Participants

- A Better City
- Boston Properties
- MAPC
- Putnam Investments
- TD Garden
- TRO Jung|Brannen
- Au Bon Pain
- John Hancock
- Nixon Peabody
- Sheraton Boston
- Tsoi / Kobus

2012 Notable Energy accomplishments

1.
2.

2013 Notable Energy recommendations

1.
2.

President / CEO / Owner Commitment

In order for energy management to be truly successful, it has to be a part of company culture and that starts at the top. Additionally, every employee should be considered an energy manager and engagement should be just as much a priority as energy efficiency investments. By signing this, you will be putting XXX on a successful energy management path for 2012 and beyond.

X_____Date____/____/2012

Building/Facility Profile

1. Building/Facility Name:
2. Location:
3. Square feet:
4. Employees/Tenants
5. Date of last energy audit:
6. Use of EPA Portfolio Manager & Score:
7. Energy Team

Name	Title	Responsibilities

Energy Policy

Instructions: Provide current status of energy policy for your facility.

In 20XX, XXXX (Board/Chairman/CEO/President/Executive Committee, etc.) approved the following energy policy.

Example: A Better City is committed to net neutral business operations by engaging in energy conserving behavior, utilizing alternative commuting methods, investing in energy efficiency and lastly, offsetting 100% of electricity consumption, employee commuting and business travel.

Assessment & Analysis

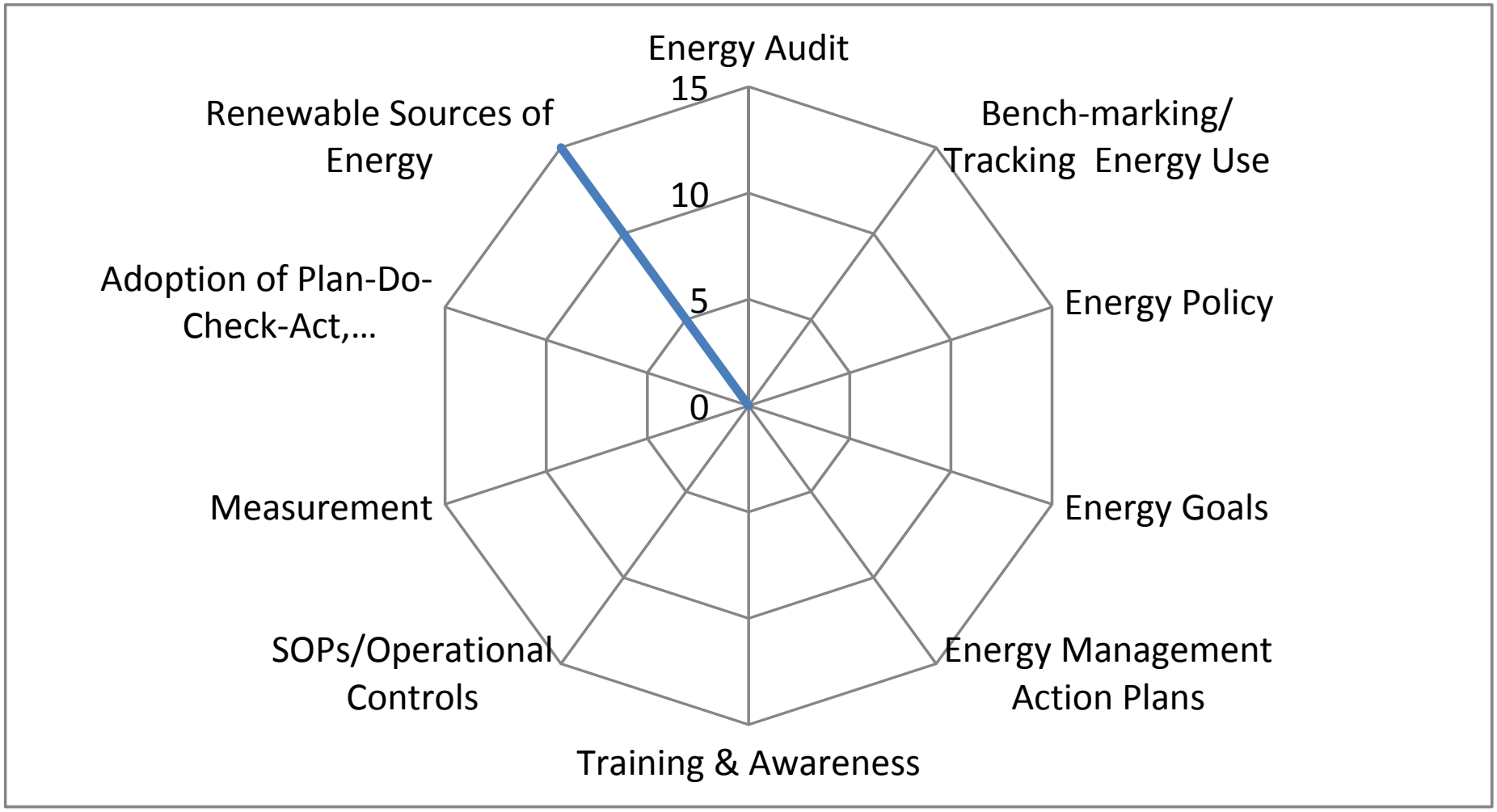
Instructions: This section is the foundation for an energy management plan. "You can't manage what you can't measure" is a phrase the business community hears a lot, but it really speaks to managing energy and therefore, a benchmark must be established. Benchmarking both current practices and utility data is imperative to the plan.

Examine Current Practices

1. Start with the assessment form found on the next page.
2. Total each category and record in number in the table below
3. Fill out the assessment again in November

#	TOPIC	SCORE
A	Energy Audit	
B	Bench-marking/ Tracking Energy Use	
C	Energy Policy	
D	Energy Goals	
E	Energy Management Action Plans	
F	Training & Awareness	
G	SOPs/Operational Controls	
H	Measurement	
I	Adoption of Plan-Do-Check-Act, Management Systems	
J	Renewable Sources of Energy	

June Energy Assessment

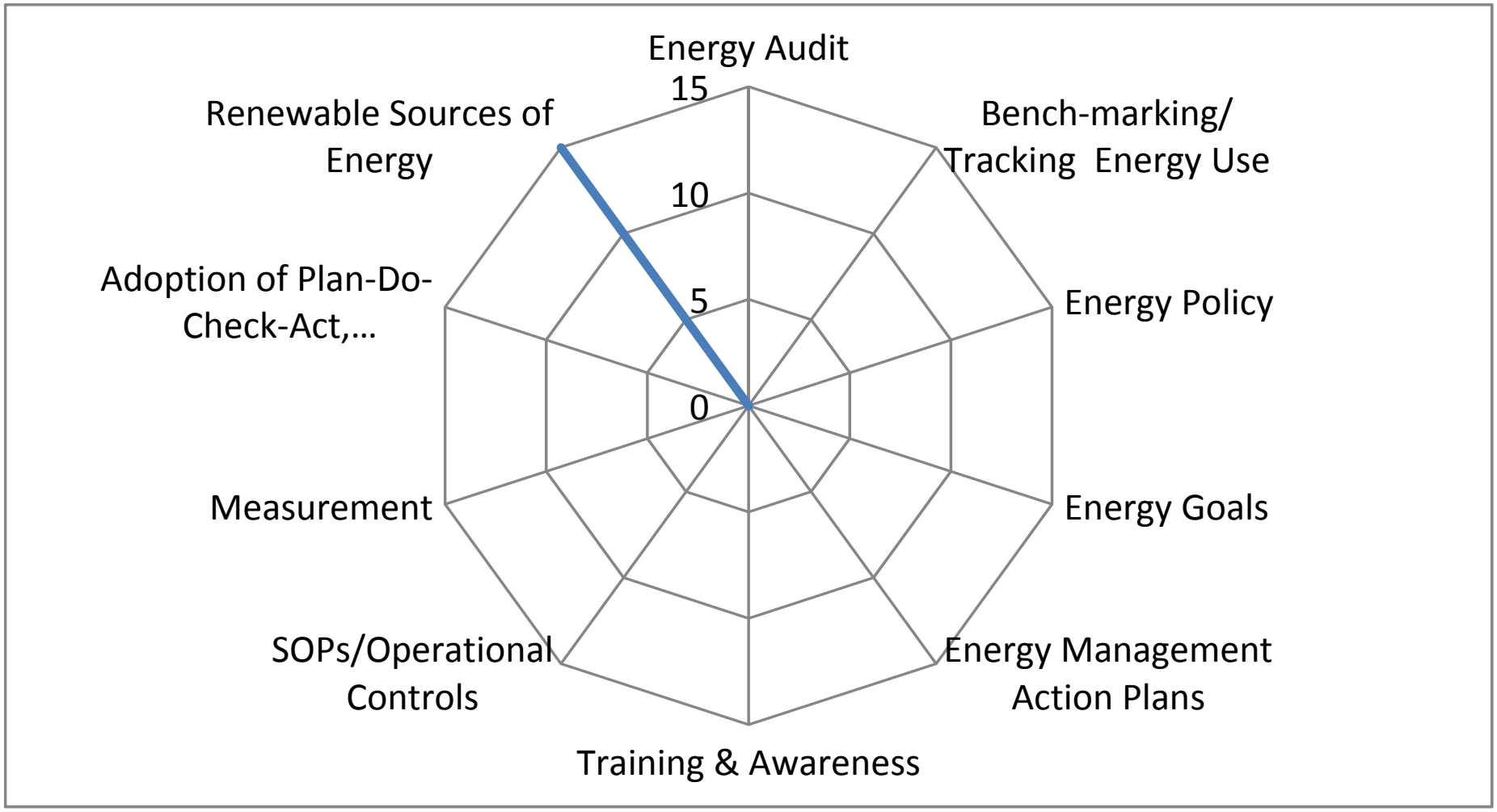


Assessment of Current Energy Mangement System

Organization:		Date Completed: Completed by:						
TOPIC	**Q #.**	**QUESTION**	**RANGE**					SCORE
A. Energy Audit	1	Has an energy audit ever been done for your organization?	1 No or Can't find	2	3 >3 yrs ago	4	5 <1 yr ago	
	2	Have priorities been set for the recommendations from the audit?	1 No or Don't know	2	3 In process or N/A	4	5 Yes & documented	
	3	Are you implementing any of the recommendations from the audit?	1 No or Don't know	2	3 Some	4	5 Most	
							Total Score for Energy Audit (A)	
B. Bench-marking/ Tracking Energy Use	4	Does your organization review its energy bills?	1 No or Don't know	2	3 Annually	4	5 Monthly	
	5	Does your organization track energy use and costs? [If so, do you use Portfolio Manager? Yes____ No___]	1 No or Don't know	2	3 Partial or N/A	4	5 Yes	
	6	Is anyone assigned the responsibility to track your organization's energy use?	1 No or Don't know	2	3 Yes	4	5 Yes & Person reports status	
							Total Score for Benchmarking/Tracking (B)	
C. Energy Policy	7	Does your organization have an energy management policy?	1 No or Don't know	2	3 In Process	4	5 Yes	
	8	If so, how would you describe personnel's awareness of the policy?	1 Low or N/A	2	3 Medium or N/A	4	5 High	
	9	How would you describe the commitment and 'buy-in' of senior management to implement the energy policy?	1 Low or N/A	2	3 Medium	4	5 High	
							Total Score for Energy Policy (C)	
D. Energy Goals	10	Does your organization have quantitative energy management improvement goals?	1 No or Don't know	2	3 Yes, General	4	5 Yes, with dates & #s (e.g., Reduce energy use by __% by _____date)	
	11	If so, how would you describe organization personnel's awareness of the energy improvement goals?	1 Low	2	3 Medium or N/A	4	5 High	
	12	Is progress in meeting the goals reviewed with senior management?	1 No	2	3 Sometimes or N/A	4	5 Regularly	
							Total Score for Energy Goals (D)	
E. Energy Management Action Plans	13	Does your organization have energy management action plans?	1 No or Don't know	2	3 In Process	4	5 Yes	
	14	Are the action plans being implemented?	1 No or Don't know	2	3 Yes	4	5 Yes & status documented	
	15	How often are action plans reviewed for their status and the potential need for adjustments?	1 Never or N/A	2	3 Sometimes	4	5 Regularly	
							Total Score for Energy Management Action Plans (E)	
F. Training & Awareness	16	How would you describe your organization personnel's awareness of energy management issues?	1 Low	2	3 Medium	4	5 High	
	17	Does your organization have training programs or activities to increase awareness of energy management?	1 No or Don't know	2	3 In Process	4	5 Yes	
	18	Does your organization have a process to receive energy management suggestions from personnel, customers, tenants, and community?	1 No or Don't know	2	3 Somewhat	4	5 Yes	
							Total Score for Training & Awareness (F)	

G. SOPs/ Operational Controls	19	Does your organization have written SOPs and "operational controls" (e.g., work instructions, signage, records, logs) to support energy management?	1 No or Don't know	2	3 In Process	4	5 Yes	
	20	Is anyone assigned the responsibility to ensure that SOPs and operational controls are current and effective?	1 No or Don't know	2	3 Yes	4	5 Yes & Person reports status	
	21	How often are operational controls reviewed for status and potential need for adjustments?	1 No or Don't know	2	3 Sometimes	4	5 Regularly	
							Total Score for Operational Controls (G)	
H. Measurement	22	Does your organization monitor and measure energy use by type of equipment and/or process?	1 No or N/A	2	3 By process	4	5 By equipment	
	23	Is anyone assigned the responsibility to monitor and measure energy use?	1 No or Don't know	2	3 Yes	4	5 Yes & Person reports status	
	24	Does your organization communicate its energy use and efforts to improve efficiency?	1 No or Don't know	2	3 Yes	4	5 Yes, wide external communication	
							Total Score for Measurement (H)	
I. Adoption of Plan-Do-Check-Act, Management Systems	25	How would your describe your organization's fa+C17miliarity with and adoption of the "Plan-Do-Check-Act" framework to improve energy management?	1 Low	4	7.5 Somewhat familiar	11	15 High	
							Total Score for PDCA/Management Systems (I)	
J. Renewable Sources of Energy	28	Does your organization currently use any renewable sources of energy?	1 No or Don't know	2 10%	3 15%	4 25%	5 >25%	
	29	Has your organization done any feasibility studies/analyses on the potential use of renewables?	1 No or Don't know	2	3 In Process	4	5 Yes	
	30	Does your organization have plans to use renewable sources of energy within the next 3 years?	1 No or Don't know	2	3 May be	4	5 Yes	
							Total Score for Renewables (J)	

November Assessment



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							Total Score for Renewables (J)	

Audit Ranking

The audit ranking tool found on the next page. Use this to rank the results and identify items that you would like to move forward on.

Utility Data Tracking

By tracking and analyzing our energy consumption and costs we gather a fuller understanding of how identify inefficiencies, and make better decisions in maintaining, improving, or eliminating programs. With more detailed information including internal and external factors (weather, staffing, and IT changes) you will have a complete overview of your energy consumption. The following table provides a monthly breakdown of our current year compared to our usage of the two preceding years.

Figure 1 - Historical Electric Data & Milestones

	2012			2011			2010		
	Change	kWh	$	Change	kWh	$	Change	kWh	$
12/25									
11/25									
10/25									
09/25									
08/25									
07/25									
06/25									
05/25									
04/25									
03/25									
02/25									
01/25									
Total									

Ranking Worksheet to Set Priorities for Energy Audit Recommendations

AUDIT RECOMMEND-ATION	POTENTIAL RANKING CRITERIA TO SET PRIORITIES (EXAMPLES ONLY—PICK AS FEW OR AS MANY FROM THESE AND/OR CREATE YOUR OWN)										
	Reduce Energy Use?	**Reduce GHG Emissions?**	**Feasibility of Implementa-tion**	**Cost-Effectiveness /Return on Investment**	**Availability of Funding/ Financing**	**Impact on Business Disruption?**	**Impact on Safety & Liability**	**Impact on Tenants, Customers or Clients**	**Impact on Image/ Branding**	**Would also conserve other resources and costs (e.g., water)?**	**Total Score**
	1= Small reductions 3= Medium 5= Big	1= Small reductions 3= Medium 5= Big	1=Not feasible 3= feasible 5= Very feasible	1= ≥ 7 years 3= 5 years 5= ≤ 2 years	1=Difficult to access 3=Available 5=Easily available	1=Little disruption 3=Somewhat 5=Big	1= Makes worse 3= Neutral 5= Makes better	1= Negative 3= Neutral 5= Positive	1= Negative 3= Neutral 5= Positive	1= Negative 3= Neutral 5= Positive	

Adapted from *Ensuring a Sustainable Future: An Energy Management Guidebook for Wastewater and Water Utilities*, EPA, January 2008, p. 40, by Madeline Snow for A Better City, May 2011.

Figure 2 - Annual Energy Data

Type	2010	2011	+/- %	2012 projected	+/- %	2013 goal
KWh (SM)						
Therms (NM)						
Steam (NA)						
Oil (NA)						

Accomplishments to Date

Instruction: provide a brief summary of previously implemented energy efficiency measures, their costs, payback, and energy savings.

Item	Date	Benefits

Assistance & Third Party Certification

The Challenge for Sustainability is designed to leverage the private sector's ability to influence change and make Greater Boston a leader in sustainable building and transportation practices. It will help increase energy efficiency, reduce resource consumption, decrease solid waste, minimize impact on natural resources, and reduce overall greenhouse gas emissions from businesses, buildings, and institutions. A key emphasis of the Challenge is energy management.

Any other 3rd Party Certifications accomplished:

1.

2.

3.

4.

Goals and Commitments

Now that the current business practices have been assessed, an audit has been conducted with the findings ranked, utility data has been analyzed and the Challenge for Sustainability scorecard has presented opportunities, I would like to adopt the following short and long term goals:

Examples:

- Reduce energy consumption by X% (minimum of 2%) over the next year.
- Reduce energy consumption by XX% by 2020
- Purchase XX% of power from green sources (wind/solar, etc.)
- Reduce total cost of electricity by XX%
- Develop an energy management team

1.

2.

3.

Plan

Challenge for Sustainability Energy Efficiency Opportunities (List Below)?

Item	1 year	2 year	5 year+	Never

Additional Opportunities identified in spider assessment or audit

Item	1 year	2 year	5 year+	Never

Implement

Now that you have a commitment from senior management and have identified opportunities for the next year and beyond, it's time to involve the rest of the organization in accomplishing your goals.

Draft an Action Plan

Below, you will find the basic shell of an action plan that can be shared. Using the goals and plan in sections 5 and 6, draft an action plan below.

Item	Likelihood of Implementation (0-5)	Barriers – Culture, Time, Lack of Knowledge, Forms Needed	Resources	Responsible Staff	Target Date	Status

Employee Engagement

Changing culture will be the hardest part of this plan, but it starts with education, communication and engagement. Here is a basic framework of employee engagement:

Education

Communicate utility usage data in an understandable way

1. Convert energy use to equivalents like SUVs, households using EPA's Greenhouse Gas Equivalencies Calculator.
2. Display usage in an interesting way that shows progress or lack of – see the Tidy Street project
3. Keep the data fresh and updated

Post physical signage to promote energy consuming behavior

1. Directional signage pointing to the stairs and touting calories burned
2. Turn off the lights

Intranet site as a resource – post information that helps employees make better decisions and make sure it includes tips for both home and work

1. PracticallyGreen.com is great external resource to link to
2. Open the blinds during the winter to take advantage of solar gain and close them during the summer to eliminate solar gain
3. Dress appropriately for the weather

Incentives, Rewards & Recognition

Financial – for those employees that have energy management as a direct job responsibility, offer cash bonuses or salary increases for good energy performance.

Recognition – for those employees that have an indirect energy management responsibility, recognition works much better. Competitions between departments are great at engaging everyone, especially when a pizza party is at stake.

Career enhancement – include energy goals in employees' work plans and performance reviews.

Solicit feedback and ideas from employees – get employees thinking about how they could use less energy in their jobs or even better, create business opportunities to save customers energy.

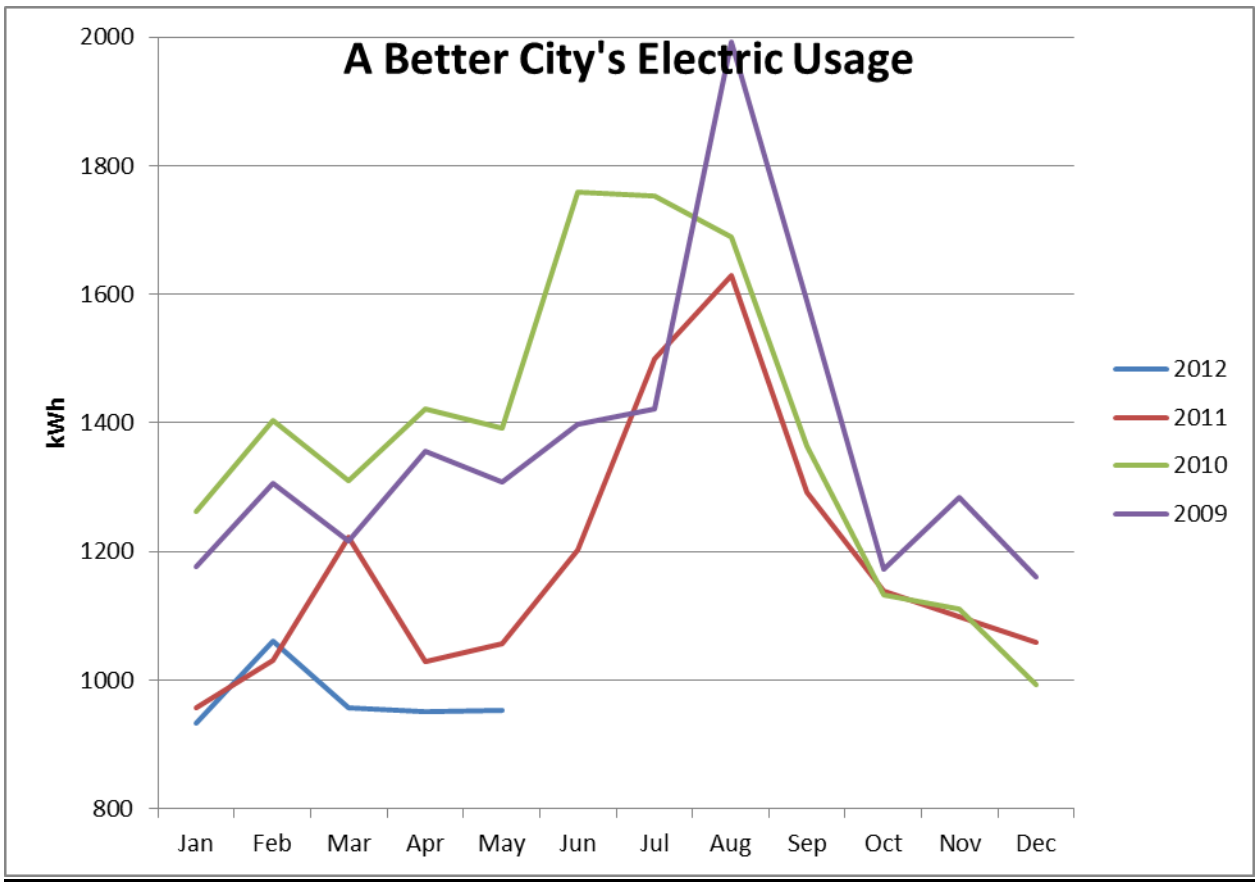
Green Mailbox – ideas email that employees can submit any time

Management gives employees the opportunity to talk about ideas in staff meetings

Idea Fair – once a year, employees submit ideas for the company to be more efficient or ideas that will create a business opportunity and they are voted on by the C-level suite.

Track and Share Data

Establish a way of tracking and sharing energy data between departments, senior leadership, tenants, customers and investors.



Capitalize

Measure your Success and Share it in a Way That Matters!

Marketing and communications deserves special attention and talent. Most engineers, facility / energy / sustainability managers (unless they are very gifted) are not meant to craft messaging that tells a compelling story, so leave it the experts and get in touch with your marketing department.

A great resource is this slideshow from Saatchi & Saatchi, a firm known for designing powerful communications.

Get Recognized and Join a Community to Share Best Practices

There are many third party organizations that recognize great energy performance and likewise, there are many professional associations that depend on successful organizations to share their experiences. Here are a few:

- Building Owners and Managers Association (BOMA) – national organization
- U.S. Green Building Council (USGBC) – national organization that certifies green buildings and professionals
- American Institute of Architects (AIA) – national organization
- Net Impact – national organization of new generation leaders that use their careers in business to tackle the world's toughest problems.
- U.S. Environmental Protection Agency Energy Star – certification on buildings with high energy performance
- U.S. Green Power Partnership – recognizes businesses who buy green power
- Challenge for Sustainability – Boston based program that challenges the commercial real estate and business community to implement a strategic sustainability strategy and share best practices.
- Better Bricks – Portland based program recognizes leaders in high performing commercial buildings
- Green Office Challenge – Chicago and Houston based program encouraging commercial property owners and office tenants to participate in a friendly competition to improve the environmental performance of their business operations
- Seattle 2030 – high-performance building district that aims to dramatically reduce environmental impacts of facility construction and operations.
- Denver Energy Challenge - program provides education, rebates, and recognition to businesses in the City and County of Denver. Our goal is to help businesses save money, increase energy efficiency, and reduce greenhouse gas emissions.

THE HIGH PERFORMANCE PORTFOLIO:

ENERGY MANAGEMENT CHECKLIST

BETTERBRICKS
Bottom line thinking on energy.

"Do you have an energy management focus in your properties?"

When asked this question, most office professionals respond with an emphatic "Yes." But how does one define effective energy management? What specific actions represent a comprehensive program, and does this reflect your firm's efforts?

While there is no single approach that applies to all companies, there are some best practices generally acknowledged to give the greatest chance of success. Detailed in The High Performance Portfolio Framework, you may already utilize some of these key strategies, while others may be quite new, or defined a little more explicitly.

Use the checklist below in thinking about your current practices, and consider the techniques you currently utilize. Each question examines a specific situation, reflecting whether or not a broader energy management strategy is really in use. If the answer is "Yes," you are most likely effectively deploying that technique. If "No," then this highlights an area to focus on in building your implementation plan:

FRAMEWORK STAGE	QUESTION	Y	N	NA	COMMENTS & IDEAS	FRAMEWORK REFERENCE
ASSESS	1) Can your president, CEO, or senior executive identify specific ways your firm is leveraging energy efficiency as a means to win business?	☐	☐	☐		*Examine Mission and Methods*, page 11
	2) Name any two properties in your portfolio. Can you identify which uses less energy per square foot? Which has a better NOI?	☐	☐	☐		*Collect Utility and Financial Data*, page 15
	3) If legislation were passed concerning a carbon cap and trade system, could you explain to your organization's senior management the implications on building operations?	☐	☐	☐		*Put your Portfolio in Context*, page 16
COMMIT	4) Do you have an energy efficiency goal or target that can be expressed in a specific number and/or date?	☐	☐	☐		*Define Targets and Resources Required*, page 21
	5) Does your building or organization's Web site articulate a stance on high performance buildings?	☐	☐	☐		*Create and Adopt an Energy Management Policy*, page 22

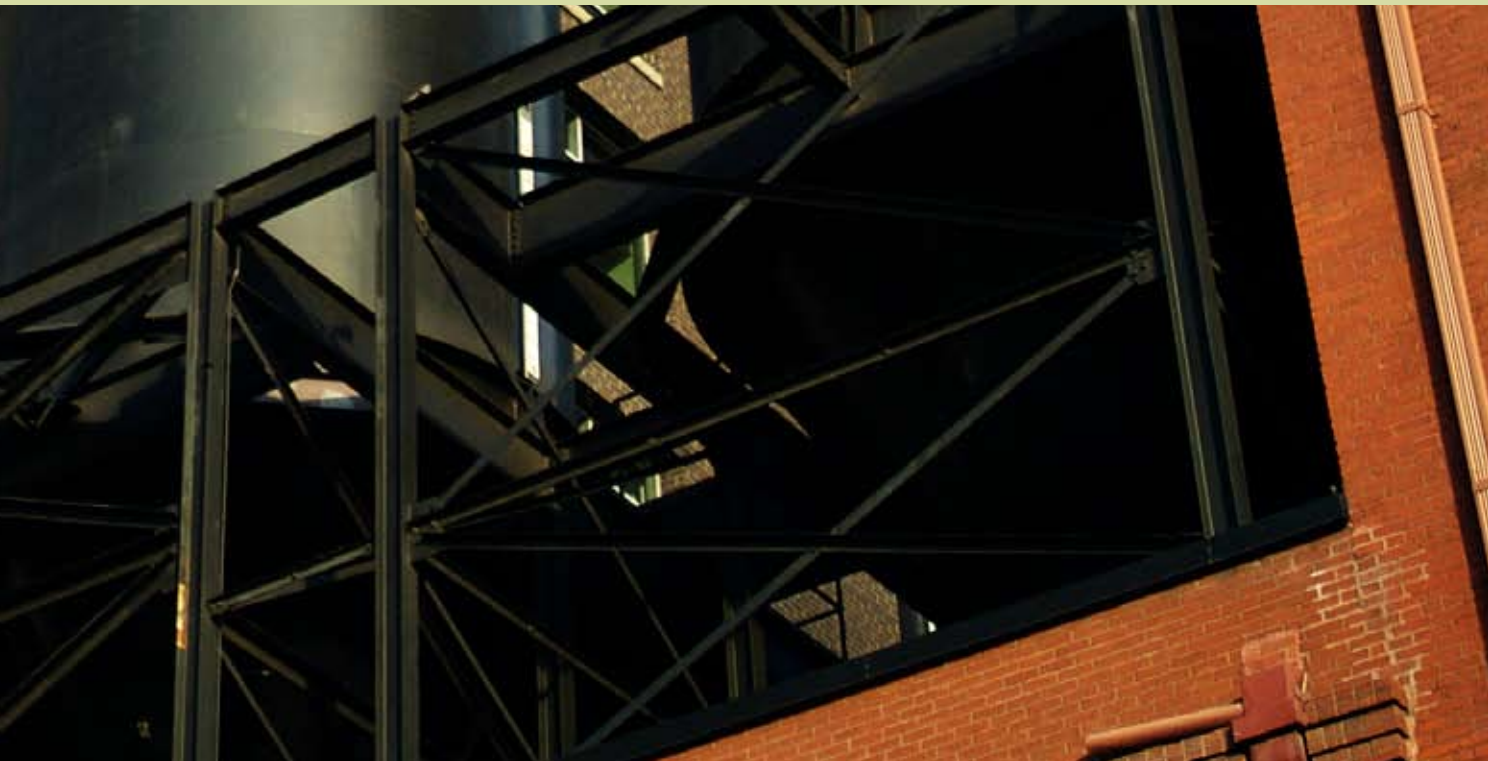
FRAMEWORK STAGE	QUESTION	Y	N	NA	COMMENTS & IDEAS	FRAMEWORK REFERENCE
PLAN	6) Could your human resources professional name the specific individuals responsible for energy performance, at the portfolio and building levels?	☐	☐	☐		*Establish an Energy Team*, page 25
	7) Hypothetically, if you had two identical properties, one in Phoenix and one in Seattle, could you tell which is operated more efficiently?	☐	☐	☐		*Benchmark Buildings with Portfolio Manager*, page 29
	8) Have you ever surveyed tenants and their leases to identify opportunities to reduce a building's operating hours?	☐	☐	☐		*Analyze Leases and Tenant Requirements*, page 32
	9) If you could get an operations analysis for a building, do you know who to call, and what to ask for?	☐	☐	☐		*Conduct Scoping Studies*, page 33
	10) If asked, could any member of your energy team list three tasks they are required to complete by the end of this month?	☐	☐	☐		*Create an Implementation Plan*, page 35
IMPLEMENT	11) Can an employee get a raise, promotion, or other reward by excelling in energy management within your firm - and are they aware of this?	☐	☐	☐		*Establish Performance Incentives*, page 40
	12) Can you get a capital purchase approved even if it doesn't meet a traditional payback period number (e.g. payback must be less than 2 years)?	☐	☐	☐		*Refine Purchasing Procedures*, page 42
	13) If a building owner wanted to see current energy performance figures, could he find them in your monthly reports?	☐	☐	☐		*Establish Tracking and Reporting Procedures*, page 43
	14) Does your standard leasing template address energy management goals?	☐	☐	☐		*Define a Strategic Leasing Approach*, page 45
	15) Do building engineers have the authority to veto a tenant improvement plan before signing?	☐	☐	☐		*Leverage Tenant Improvement Projects*, page 48

FRAMEWORK STAGE	QUESTION	Y	N	NA	COMMENTS & IDEAS	FRAMEWORK REFERENCE
IMPLEMENT	16) Has your firm ever bought or sold a building based in part on anticipated energy costs?	☐	☐	☐		*Adopt Energy-related Acquisition and Disposition Criteria*, page 50
	17) Do you have a systemic plan to tune-up your buildings every 2-5 years?	☐	☐	☐		*Schedule Building Tune-ups*, page 52
	18) Could your on-site facility manager log in to your control system and look up the current status of a heating/cooling zone without calling an outside party?	☐	☐	☐		*Enact an Enhanced O&M Plan*, page 53
	19) In your most recent new construction project, was the design engineer on contract and able to bill time in the programming and schematic design phases?	☐	☐	☐		*Take an Integrated Design Approach*, page 56
	20) If someone asked for a reference on a good commissioning contractor, could you provide one?	☐	☐	☐		*Guide and Verify Through Commissioning*, page 58
CAPITALIZE	21) If asked by a stranger why your building is better than another, could you give a compelling, 15-second answer?	☐	☐	☐		*Craft Key Messaging*, page 61
	22) If someone looked up a space listing for one of your properties on CoStar, would he/she learn about high performance?	☐	☐	☐		*Tell the Story*, page 65
	23) Have you ever explained your energy performance with an appraiser or a banker as part of negotiations for financing?	☐	☐	☐		*Leverage Results in Market Transactions*, page 68
	24) If asked, could you produce an estimate of the energy and cost savings over the previous year?	☐	☐	☐		*Assess Progress against Stated Targets*, page 69
	25) Have you endorsed or recommended an employee, service provider, or contractor to others in your company or another firm based on their successes in energy performance?	☐	☐	☐		*Recognize and Reward Success*, page 73

BETTERBRICKS
Bottom line thinking on energy.

THE HIGH PERFORMANCE PORTFOLIO FRAMEWORK

ENERGY MANAGEMENT STRATEGIES FOR A COMPETITIVE OFFICE MARKET



INTRODUCING THE HIGH PERFORMANCE PORTFOLIO

Buildings are your business. They're investment vehicles, providing financial opportunity as well as places of commerce. But have you unlocked all of their potential?

A high performance building delivers on that opportunity — for financial returns, satisfied occupants, and environmental sensitivity. In today's office market, some industry leaders are going even further, pursuing high performance portfolios. More than just a collection of trophy properties, a high performance portfolio calls for managerial excellence, utilizing energy efficiency and other strategies to build value at each stage in the real estate cycle.

A high performance portfolio calls for managerial excellence...

Energy efficiency is your secret weapon. It's the first step towards "green" buildings and sustainability initiatives. It delivers immediate bottom-line results and a more comfortable work environment, while adding value in unexpected ways — often at little or no expense. Furthermore, it's becoming a business imperative. Tenant demands, investor pressures, new regulations, incentives, and climate change issues are altering the economic landscape of the real estate industry.

Pursuing a high performance portfolio allows you to navigate these trends and maintain your competitive edge. But it requires a comprehensive approach, with strategic thinking, an executive commitment, and a dedicated team leveraging opportunities in each building and throughout the portfolio. It also means recognizing that you're undertaking a process of continuous improvement, building on past lessons towards even greater achievements.

What's more, high performance portfolios are professionally stimulating and personally rewarding. Whatever your role – owner, asset manager, property manager, engineer – you will broaden your skills through your efforts. You will expand your expertise, enhance your client services, develop new contacts, learn about new market trends and technologies, and become a leader. So enjoy it.

Though energy efficiency is the first step, don't stop there. Carry your successes forward into other important areas of real estate, from sustainable buildings, urban infill, transportation issues, worker productivity, and more. Explore the potential of renewable energy, resource conservation, and improved indoor air quality on the value sought by your tenants. The High Performance Portfolio Framework is focused on energy, yet many strategies described here will serve you well in other operations.

Ready to get started? Read on.

ACKNOWLEDGEMENTS

BetterBricks, the commercial initiative of the Northwest Energy Efficiency Alliance (NEEA), along with a national group of experts, is proud to offer the High Performance Portfolio Framework. BetterBricks' work in the commercial real estate market would not be possible without the support, technical assistance, and financial backing of the local electric utilities in the Northwest.

BetterBricks developed the Framework in a collaborative effort with JDM Associates, an energy consulting firm specializing in commercial real estate. Jack Davis and Skip Schick managed the project on behalf of BetterBricks. The primary contributors from JDM Associates were Deborah Cloutier, John Klein, and Alison Drucker. Additional key insight and expertise were provided by Theddi Wright Chappell (Sustainable Values, Inc.) and Mark Jewell (RealWinWin, Inc.).

The Framework benefited from contributions, comment, and vetting from many others, including real estate and finance experts, commercial real estate owners and managers, utilities, and energy service companies. We thank all of these firms and individuals for their assistance.

USING THE FRAMEWORK

The High Performance Portfolio Framework is a strategic, comprehensive overview on making energy management a winning business strategy, with guidance for each aspect of the real estate cycle. It's a "desk reference" for all layers of real estate practitioners — from senior executives to building operators — to help you understand the steps necessary to achieve a more energy efficient, environmentally sensitive, financially rewarding portfolio.

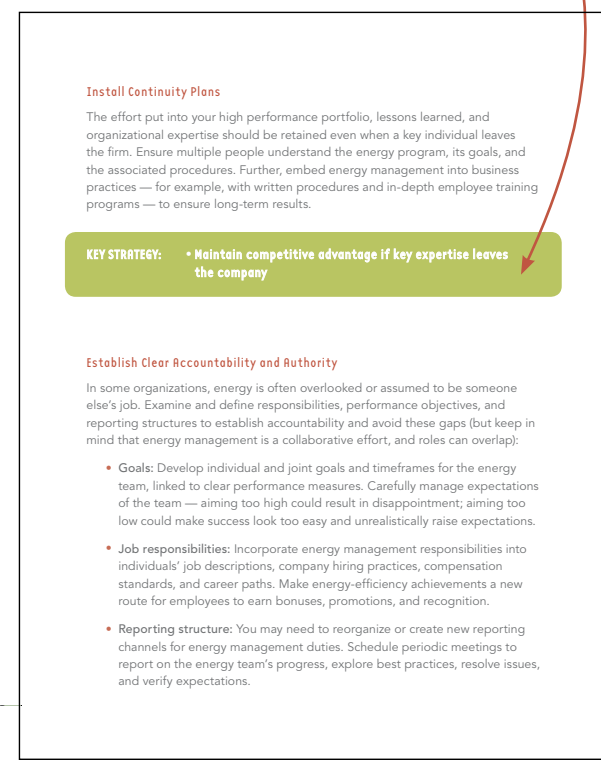
All the steps detailed in this document are proven techniques being practiced by leading real estate organizations today. This isn't brand new. But it does pull together all the elements of a comprehensive energy management strategy in one place. The Framework lays out a strategic path to help your portfolio reach its full potential, without getting lost in the spot-fixes and day-to-day crises that challenge ever-busy real estate practitioners.

Key strategies, highlighted throughout, distill the Framework's main concepts into operating principles for your organization to follow.

The optimal way to use the framework is sequentially, starting at the beginning and working through the process as outlined. However, keep in mind that energy management is iterative. You may determine that the best approach for your organization is to stage and time your activities for different parts of the portfolio.

Start by reading and circulating this document to get a solid foundation. A downloadable version of this guide is available on the BetterBricks Web site at *www.betterbricks.com/office/framework*. The Framework is divided into five sections representing the main stages of energy management in office real estate: Assess, Commit, Plan, Implement, and Capitalize.

Interspersed in the Framework are Key Strategies, highlighted in green boxes. These distill the Framework's main concepts into operating principles for your organization to follow. Share these strategies with senior executives and pull them, as applicable, into your Portfolio Implementation Plan.



Install Continuity Plans

The effort put into your high performance portfolio, lessons learned, and organizational expertise should be retained even when a key individual leaves the firm. Ensure multiple people understand the energy program, its goals, and the associated procedures. Further, embed energy management into business practices — for example, with written procedures and in-depth employee training programs — to ensure long-term results.

KEY STRATEGY: • Maintain competitive advantage if key expertise leaves the company

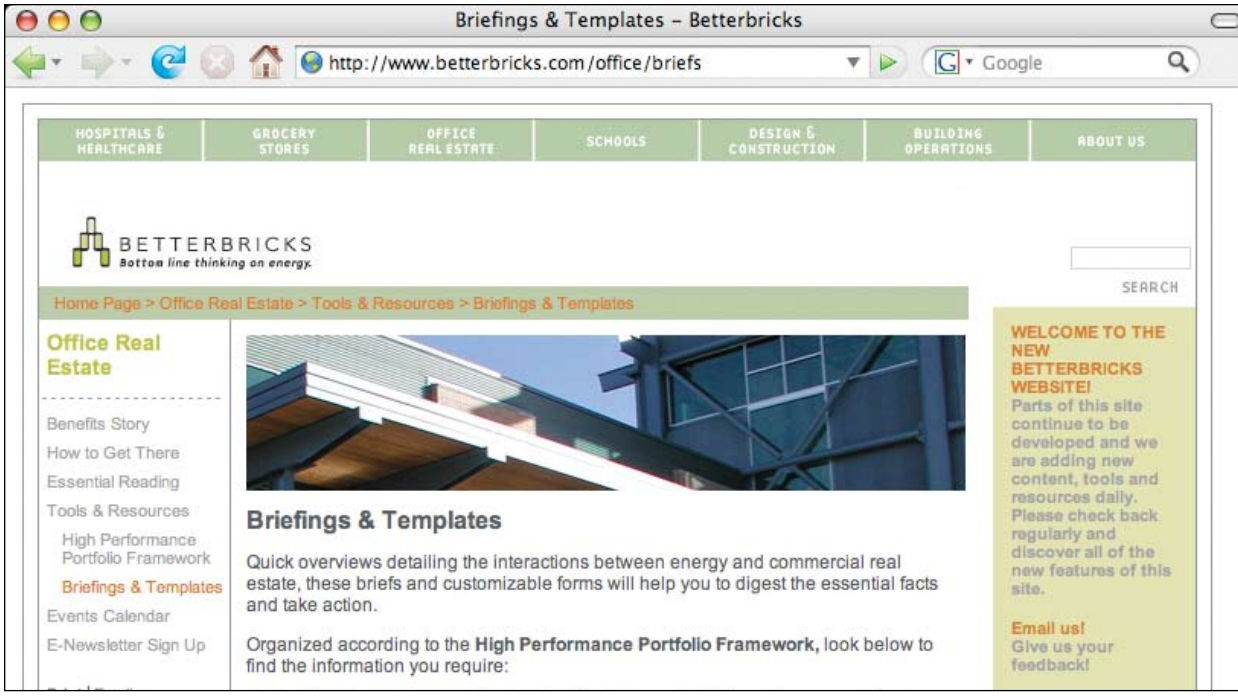
Establish Clear Accountability and Authority

In some organizations, energy is often overlooked or assumed to be someone else's job. Examine and define responsibilities, performance objectives, and reporting structures to establish accountability and avoid these gaps (but keep in mind that energy management is a collaborative effort, and roles can overlap):

- **Goals:** Develop individual and joint goals and timeframes for the energy team, linked to clear performance measures. Carefully manage expectations of the team — aiming too high could result in disappointment; aiming too low could make success look too easy and unrealistically raise expectations.
- **Job responsibilities:** Incorporate energy management responsibilities into individuals' job descriptions, company hiring practices, compensation standards, and career paths. Make energy-efficiency achievements a new route for employees to earn bonuses, promotions, and recognition.
- **Reporting structure:** You may need to reorganize or create new reporting channels for energy management duties. Schedule periodic meetings to report on the energy team's progress, explore best practices, resolve issues, and verify expectations.

Then turn to the "Learn More" boxes as you begin to take action. These briefings, tools, and Web sites delve deeper into specific topics addressed in the Framework, and include downloadable forms and templates to adapt to your business priorities. Wherever you see a greenish blue box like the one below, unless otherwise noted, you can find the listed resources at *www.betterbricks.com/office/briefs*.

LEARN MORE: • **Energy Management Checklist**



Go to *www.betterbricks.com/office/briefs for more information.*

Some of the listed resources can be found directly through external Web links, wherever indicated like this:

LEARN MORE: • **ENERGY STAR® Portfolio Manager (*www.energystar.gov/benchmark*)**

Even more resources can be found within the BetterBricks briefings and tools themselves. Together, these materials will help you develop a tailored, practical approach to improving your portfolio's energy performance.

THE HIGH PERFORMANCE PORTFOLIO FRAMEWORK

ASSESS

Examine Mission and Methods:

- initial approvals
- current practices

Survey the Portfolio:

- utility and financial data
- market context

COMMIT

Build the Business Case and Set Targets:

- status and findings
- financial rationale
- targets and resources required

Engage Executive Management and Owners:

- energy management policy
- overcoming objections

PLAN

Establish an Energy Team:

- skills assessment
- organizational model
- accountability & continuity

Identify Specific Opportunities:

- business practices
- best practices
- benchmarking
- leases and tenant requirements
- scoping

Create Your Plan:

- key strategies
- implementation plan
- final approvals

IMPLEMENT

Management:

- mobilize the organization
- performance incentives
- purchasing procedures
- tracking & reporting

Market Transactions:

- strategic leasing
- tenant improvements
- acquisition and disposition criteria

Building Operations:

- tenant requirements
- building tune-ups
- enhanced O&M
- equipment upgrades

New Developments:

- integrated design
- project targets
- design team
- commissioning
- post-occuppancy activities

CAPITALIZE

Market Your Energy Performance

- key messaging
- recognition
- telling the story
- educating leasing agents and brokers

Capture the Value of High Performance:

- calculating results
- leveraging results in negotiations

Continue to Innovate and Achieve:

- assessing progress
- feedback
- industry networks
- emerging trends
- rewarding success

ASSESS

COMMIT

PLAN

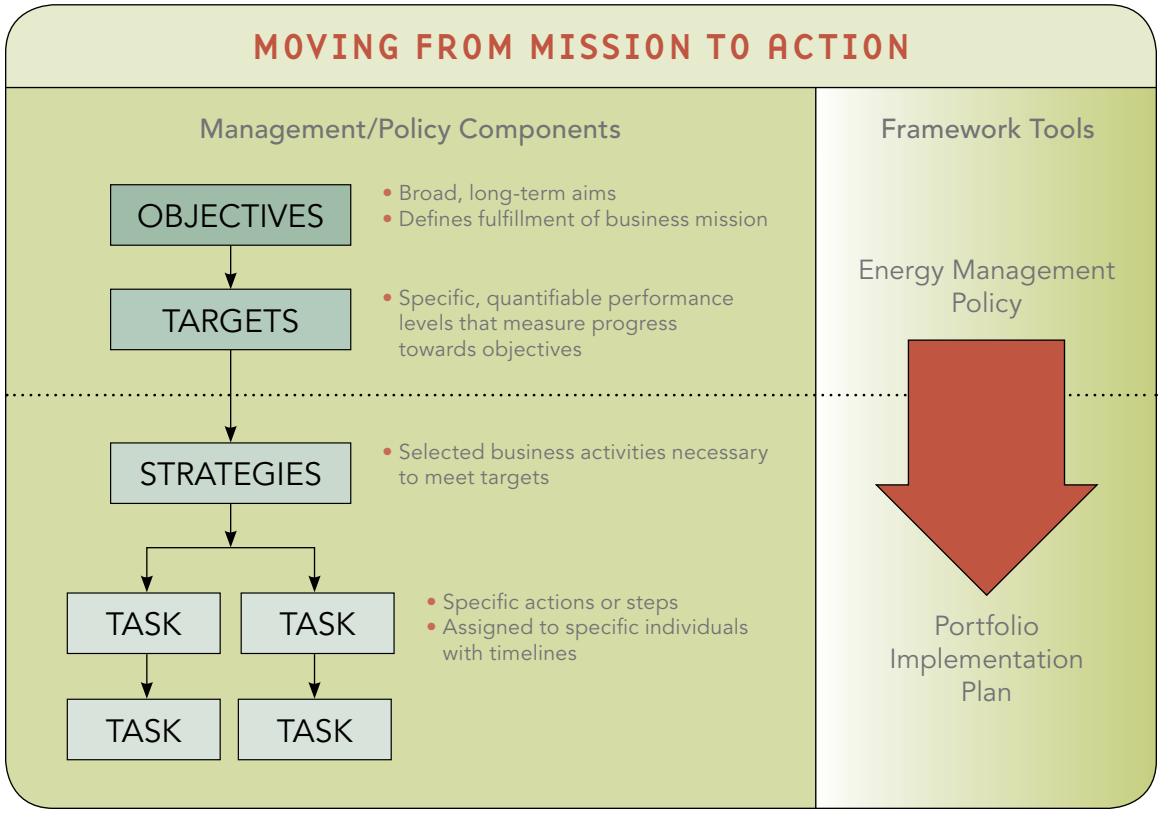
IMPLEMENT

CAPITALIZE

How does your organization manage energy? Prior to pursuing a high performance portfolio, it is important to survey your operations. In essence, conduct a "performance review" of your organization — and identify the practices that are working, where improvements can be made, and how energy management is aligned with your business objectives. You should emerge with a high-level picture of the potential for achieving greater portfolio performance.

EXAMINE MISSION AND METHODS

Put high performance buildings in the context of your organization's role, mission, and business methods. Examine how greater energy management can better fulfill the current mission, and consider redefining your mission to incorporate sustainable business practices. For example, does the organization aim to provide the highest levels of client service? Foster professional development and innovative thinking among employees? A high performance portfolio can support these objectives and many others.



Revisit your organization's financial, growth, and business objectives and connect them to benefits of a high performance portfolio. These objectives will form the foundation of your energy management efforts, translating into portfolio energy targets and a detailed implementation plan on how to meet those targets.

Revisit your organization's financial, growth, and business bjectives – these will form the foundation of your energy management efforts...

Examine how dedicating time and resources to energy management will serve the greater interests of owners, tenants, and clients. If this link is not clear, then it will prove difficult to gain approvals. Lastly, recognize that energy management can act as a proxy for overall organizational excellence. Leadership in energy and cost reduction sends a clear signal to investors, the market, and the community about the strength of your management team.

KEY STRATEGY: • **Define the potential business opportunities, risks, or competitive advantages of high performance**

Obtain Initial Approvals

Before a portfolio-wide energy management program is undertaken, obtain the initial go-ahead from senior management. Get their approval to make preliminary explorations, and set a timeframe to come back with more detailed recommendations.

Strengthen your case with examples of the benefits of high performance portfolios — enhanced net operating income (NOI) and asset value, reduced carbon emissions, improved tenant comfort and satisfaction, extended equipment life, and a revitalized corporate reputation for sustainability. Be armed with examples of what other organizations have accomplished.

Among all these benefits, focus on the priorities most relevant to your organization. Recognize that you are competing with other initiatives for limited resources, and it will be difficult to convince stakeholders to support you unless your proposals are aligned with the organization's broader objectives.

KEY STRATEGY: • **Expedite approvals by demonstrating how energy performance will support identified business opportunities**

KEY STRATEGIES IN PRACTICE: BENTALL CAPITAL

Bentall Capital, a leading service provider to institutional real estate owners, has evolved its service model to focus on high performance buildings. "We've had to adapt our services to remain leading-edge and respond to client demands, but in some respects we lead our clients down certain paths. We play a huge role as a large service provider," says Cheryl Gray, Bentall's Senior Vice President of National Real Estate Services.

Bentall's size was one factor influencing the decision to focus on high performance buildings. Other factors included an intensifying client interest in sustainability; the real estate industry's responsibility to reduce its greenhouse gas emissions; a better ability for Bentall to fulfill its vision of being a market leader and operating superior properties; and the continuous desire to simply do things better. Once senior management recognized these opportunities, Gray spearheaded an effort to "operationalize" these ideas into a workable framework and strategic three-year plan, which is revisited each year.

"The focus on [sustainable buildings] has been so strong in the market that it will become the norm, just like building automation, tenant service center models, and other property features that have become integral parts of the way we all do business today," says Gray. "The greatest risk is not doing anything about it."

Examine Current Business Practices

With initial approvals in hand, begin by surveying how your organization manages energy issues, and how decisions are made regarding energy performance. Catalog your current policies, practices and procedures, and identify gaps or areas that can be improved. Explore each business unit, region, or market segment to note where differences may lie. Ask questions such as:

- Do you have staff dedicated to energy management?
- What operations and maintenance standards and procedures are in place?
- Are you tracking building energy use? If so, who's doing it and how?
- Do leasing practices include building engineering staff in decisions about the terms and tenant improvement process?
- Is the current payback threshold a barrier for energy efficiency improvements?
- Do your acquisition and disposition activities consider energy performance?
- Do procurement policies specify energy efficiency with regards to products, equipment, and services?
- What are considered best practices for new developments?

Use the BetterBricks Energy Management Checklist as a guide to explore the current practices of your portfolio. The results from this assessment will identify promising areas to pursue, and will eventually become key components of your implementation plan.

KEY STRATEGY: • **Perform a self-diagnosis to examine existing operations and their effect on performance**

LEARN MORE: • **Energy Management Checklist**

SURVEY THE PORTFOLIO

Gather high-level data that provides a view of your portfolio's energy consumption and financial performance. Overlay this information with critical distinctions in how operations occur within buildings — among buildings operated by different property management and engineering firms, in different markets, or across different property types.

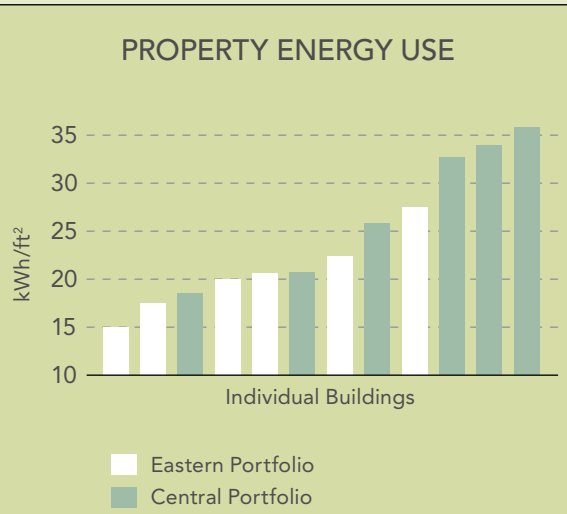
Identify patterns among these variables and analyze their implications on performance. Then assess the impact of current market conditions on your decisions. Uncovering these external or internal performance drivers will facilitate your case for a focus on energy management and lay the foundation for future planning.

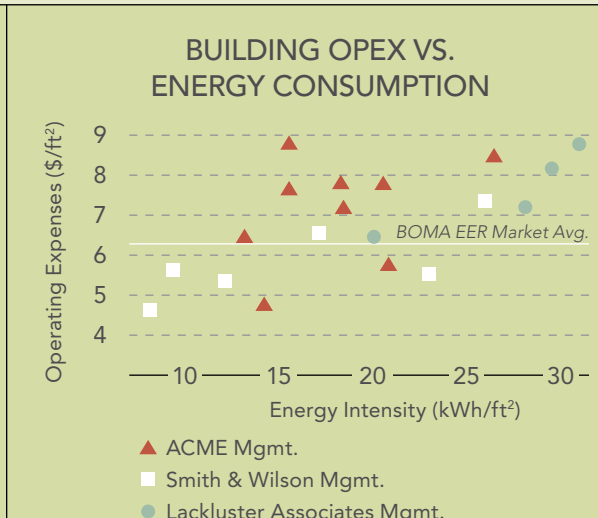
Collect Utility Data

Examine energy consumption data for your portfolio by collecting data from utility bills, tenants, or the utility companies directly. Simple metrics such as energy consumption per square foot, cost per square foot, and annual consumption and cost provide a general sense of individual properties and the portfolio's performance. If you are unable to collect this information for the entire portfolio, gather a representative sample in order to better understand the current usage and potential for improvement.

Examples of mapping performance differences below:

ASSESSING FINANCIAL & ENERGY DATA





Collect Financial Data

Now examine the portfolio and individual properties' financial performance. For example, look at net operating income, operating costs, occupancy levels, total occupancy costs per square foot, and leasing rates. Contrast these with market averages from sources such as the BOMA Experience Exchange Report or industry forecasts. Are there any correlations between financial and energy performance? If so, assess what the correlations imply — are your more efficient buildings also more profitable? Does your portfolio's performance fall above or below your expectations? Are there any outlier properties that merit further examination?

If operating costs are above the market average, can improvements in energy efficiency close the gap?

Begin to explore financial scenarios. What is the financial impact of improving the energy performance of sub-par properties? If operating costs are above the market average, can improvements in energy efficiency close the gap? Again, if you are unable to collect financial information for the entire portfolio, collect a representative sample.

Put Your Portfolio in Context

Explore the changing market dynamics of the commercial real estate industry. The macro-level issues affecting your business include:

- **Energy price volatility:** Energy costs — and energy demand — are only going to grow. Reducing energy use is now a key risk mitigation strategy for many organizations.
- **Carbon regulations & trading:** Countries, regions, states, and cities are implementing both enforceable government regulations and market-driven carbon trading schemes. Carbon trading (also known as cap-and-trade or emissions trading) allows companies to buy and sell permits for carbon emissions. Those that can reduce emissions sell extra permits to companies for whom it would be prohibitively expensive. Leading organizations are already analyzing the potential implications and developing plans to gain a competitive advantage.
- **Influence of "green building":** Sustainable or "green" buildings have quickly become a market force in the real estate sector. Driven by numerous factors, including tenant demands, a growing awareness of climate change, financial performance, or simply environmental stewardship, few real estate companies can afford to ignore this trend. Energy performance is a major consideration in sustainable buildings, and your assessment of the opportunities of high performance should evaluate what role, if any, sustainable buildings will play in your portfolio.

Consider trends and issues that may not obviously relate to energy, but influence your overall business strategy. Mixed-use development, urban infill, industry consolidation, capital availability, current occupancy levels or capitalization rates, "smart" building or technological advances — each might affect how you manage energy.

How must your portfolio and business adapt to these conditions? What are the strategic implications? High performance portfolios can integrate well into most of these issues, but only if senior management is aware of the relationships. Be prepared to address these trends, and provide clear rationale and recommendations for why your organization should (or should not) take a leadership role.

KEY STRATEGIES:

- Develop baseline data on financial and energy performance levels
- Examine results to uncover potential factors for differences in performance
- Analyze the implications of market trends on energy management

LEARN MORE:

- Carbon, Energy, and Your Building
- Green Building & Energy

COMMIT

STAGE 2

With assessment data in hand, you should now have the ingredients necessary to craft the business arguments and intended objectives of a high performance portfolio. Begin by crunching the numbers, summarizing the trends and opportunities uncovered earlier. Use your findings to illustrate to senior managers, owners and other stakeholders what you hope to achieve and why — and secure a written commitment authorizing you and the organization to move forward.

BUILD THE BUSINESS CASE AND SET TARGETS

Building a high performance portfolio requires dedicated resources in terms of time, capital, and staff availability. Other business initiatives will also be competing for those resources — such as general property management needs, budgeting exercises, new development projects, or tenant recruitment and negotiations. However, you have an advantage in that the benefits of high performance often serve or supplement other aspects of the business.

Identify business "best practices" that merit expansion throughout the portfolio...

This does not exempt you from building a compelling case to move forward. Solid reasoning, financial analysis, and strategic thinking will be required to position your proposals in a favorable manner — and convince executive management or owners to commit resources.

Analyze Findings and Summarize Status

Gather the results of your business practices and portfolio assessment to understand how your organization currently approaches energy management. Summarize your findings, and begin to narrow down the most promising opportunities to improve your business practices. Highlight the performance gaps and key differences that you identified among different business units — property managers, building types, geography, etc. Determine which need prioritization.

Also identify business "best practices" that merit expansion throughout the portfolio. Play to your organization's strengths — if one part of your firm is especially skilled in a certain area recommend that this expertise be better distributed to all divisions. You should emerge with a menu of opportunities to vet in the financial analysis.

KEY STRATEGY: • **Bring promising recommendations forward for further financial study or review**

Develop Business and Financial Rationale

From this summary further validate the financial implications. Create a clear financial picture of each area to explore, with anticipated costs and returns. Provide a synopsis view of what capital resources a high performance portfolio will require. (You won't be equipped to provide detailed, line-item costs at this stage.)

Turn the traditional argument around, and position energy management as a strategic asset that will deliver greater profitability.

Expand the "what-if" scenarios you explored earlier by exploring the key financial thresholds that your company most utilizes – asset values, capitalization rates, or holding periods. Calculate potential improvements in operating income based on what you realistically think can be achieved.

Alongside the financial analysis, present a strategic argument regarding market conditions. Factor sustainable buildings, energy volatility, competitive positioning, and other considerations into the picture of how you see a high performance portfolio better serving your business interests. For example, could reduced operational costs support higher rental rates? Would proven performance in energy management help you win a new property management contract? Turn the traditional argument around, and position energy management as a strategic asset that will deliver greater profitability.

KEY STRATEGY: • **Detail the economic, competitive, and strategic arguments for pursuing a high performance portfolio**

Define Targets and Resources Required

With a general understanding of the potential for financial results, establish portfolio-wide targets associated with broad time frames. For example, set a target that over the next two years, you will reduce energy consumption portfolio-wide by 10%, or obtain U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) certification for five properties.

As a starting point, examine the recent announcements by professional organizations and industry leaders regarding their goals. The American Institute of Architects (AIA) has endorsed and supported the Architecture 2030 Challenge (*www.architecture2030.org*) which sets ambitious energy and greenhouse gas targets for both new and existing buildings. BOMA International has issued its 7-Point Challenge (*www.boma.org/AboutBOMA/7pointchallenge*) calling for office portfolios to reduce energy consumption 30% by 2012. CB Richard Ellis (*www.cbre.com*) announced its intent to achieve carbon neutrality in corporate occupied facilities by 2010.

Ensure that the targets you establish are based on reasonable assumptions regarding the size of the portfolio that can be addressed within a given timeframe, the amount of energy that might be saved, etc. Then utilize these targets to frame a discussion of the skills, time, and resources required. Resources may be in the form of capital, people, infrastructure, or simply organizational focus.

KEY STRATEGY: • **Create specific performance objectives to guide planning, measurement, and implementation**

ENGAGE EXECUTIVE MANAGEMENT AND OWNERS

Engaged leaders provide focus, direction, and a mandate to succeed. Secure an audience of ownership, clients, or senior executives at your firm. Then, present your business case for high performance portfolios and the summarized results of your initial business practice and portfolio assessment. Your audience will need a complete picture of your proposal — the benefits, costs, achievable goals, and resources necessary.

Create and Adopt an Energy Management Policy

As part of your discussions with senior management, present a company-wide energy management policy and work to secure their approval. This official commitment makes energy management an explicit business objective and will guide decision-making towards progress and success. The policy should:

- Commit the organization to portfolio-wide targets and timelines
- Authorize you to begin detailed planning and implementation activities
- Be signed by executive management
- Be communicated to all employees

KEY STRATEGIES:
- **Articulate the strategic emphasis on energy management to stakeholders**

LEARN MORE:
- **Sample Energy Management Policy**
- **Sample Presentation to Senior Management**

Be Prepared to Address Concerns and Overcome Objections

Expect to receive questions. Be prepared with answers and contingencies at your fingertips to the most common inquiries you'll face. For example, decision-makers are likely to raise concerns about resources — costs, time, and expertise. A common way to diffuse this issue is to propose a phased rollout — testing new energy management policies and practices on a limited set of properties, mitigating risk. As these successes bear fruit, you'll establish credibility and give traction to more ambitious plans.

What will happen to your competitive position if you don't take action?

Another approach to addressing concerns is to highlight the dangers of inaction, or not pursuing a high performance business model. With continuing cost pressures, uncertainty of future regulations, changing market conditions, and shifting tenant demands – what will happen to your competitive position if you don't take action? What are the implications for vacancy rates, operating expenses, or tenant retention if other firms can advertise their high performance buildings, and you can't? For some audiences, the risk of being left behind is more motivating than the benefits of leading the charge.

At a minimum, be prepared to answer common questions such as:

- What will it cost?
- Who is going to do it?
- What are the benefits to us, tenants, and clients?
- Don't we pass energy costs through to tenants?
- Aren't our properties efficient?
- What are the near- and long-term goals?

KEY STRATEGY: • Overcome resistance by diffusing the most common objections and misperceptions

LEARN MORE: • Energy Efficiency: Myths & Misperceptions

Having secured your organization's commitment to a high performance portfolio, start building the infrastructure and carrying out the detailed tasks to make it happen. First, assemble a dedicated and skilled team and further rank and evaluate opportunities for improved efficiency. Then, build a detailed implementation plan that will coordinate progress across the organization, and assign specific tasks, responsibilities, and timelines.

ESTABLISH AN ENERGY TEAM

Pursuing a high performance portfolio is a group effort. Cooperation and buy-in from all levels of your company are vital, as is a multi-disciplinary energy team and a model for housing it in the organization.

Assess Skills and Expertise

An energy team requires a range of skills. Team members should:

- Exude passion about both the environmental and financial sides of high performance buildings, and be able to champion energy efficiency throughout the organization
- Possess leadership and people-management capabilities
- Have senior management support and an in-depth knowledge of the business
- Be willing and able to change traditional practices and mindsets
- Have key functional skill sets, including:
  - Building operations
  - Technical and engineering expertise
  - Basic knowledge of energy management
  - Knowledge of sustainable building strategies (if this is part of your policy)

- Financial analysis
- Salesmanship and marketing
- Additional real estate skills (e.g., lease negotiations, development, and project management)

Examine your organization's current capabilities, looking across all departments and properties to create a multi-disciplinary group. Identify employees who have the acumen — and the passion — to participate. Where do these skill sets reside, and where are there gaps? What capacities will you need to build or secure?

KEY STRATEGY: • **Evaluate staff capabilities and identify gaps in key skills**

Develop an Organizational Model

Evaluate options for how your energy team will be set up and where skill sets will reside. An energy team may be a stand-alone group or distributed among existing job functions; it may be two people or twenty — an "energy network."

Assess the need for additional skills. Supplement your staff's knowledge base by:

- **Extending the team:** Bring people on board who have not traditionally been considered a part of energy management. Because energy increasingly affects multiple aspects of the business, internal and external associates such as property managers, utility account representatives, asset managers, marketing staff, and leasing agents all may meaningfully contribute.
- **Training:** Bring necessary skills in-house, strengthening individuals' ability to contribute and building competitive distinction for your firm.
- **Hiring:** Hire someone with the skills you require, such as a full-time energy manager. Create new job descriptions, pay scales, and hiring policies.
- **Outsourcing:** A third-party service provider can be a direct route to expertise, and also makes sense for technical skills that may be too expensive or complex to develop internally. Consider outsourcing turnkey projects requiring distinct technical skills, such as energy modeling or lighting upgrades.

KEY STRATEGIES IN PRACTICE: CB RICHARD ELLIS

CB Richard Ellis, a leading real estate services firm, relies on a nationwide energy and environmental team called the Green Knights.

Dave Pogue, Senior Managing Director for CBRE's Asset Services, Western Region, explains. "We always strive for company-wide consistency in policy and practice. To achieve this, the best approach often is to find someone to become an initiative's regional champion. It didn't take me very long to recognize that we needed the same approach for our energy and sustainability programs – a group of committed local advocates who already had a personal commitment to sustainability. So we asked each of our Market Leaders to identify someone who fit those criteria. There are now 33 Green Knights."

CBRE brought these individuals together in three regional meetings and empowered them to be the eyes and ears in their local markets, serving as informed resources and technical experts for their regions.

To recruit team members and gain support, illustrate how high performance goals support individual job responsibilities. If energy management goals are aligned with broader corporate objectives, then every department and business function has a stake in high performance buildings and can derive value from them.

KEY STRATEGIES:

- **Design a team structure that facilitates effectiveness in energy management**
- **Ensure necessary skills and expertise are accessible to your organization**

LEARN MORE:

- **Organizational Approaches to Energy Management**

Establish Clear Accountability and Authority

In some organizations, energy is often overlooked or assumed to be someone else's job. Examine and define responsibilities, performance objectives, and reporting structures to establish accountability and avoid these gaps (but keep in mind that energy management is a collaborative effort, and roles can overlap):

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Install Continuity Plans

The effort put into your high performance portfolio, lessons learned, and organizational expertise should be retained even when a key individual leaves the firm. Ensure multiple people understand the energy program, its goals, and the associated procedures. Further, embed energy management into business practices — for example, with written procedures and in-depth employee training programs — to ensure long-term results.

KEY STRATEGY: • **Maintain competitive advantage if key expertise leaves the company**

IDENTIFY SPECIFIC OPPORTUNITIES

Now, give your energy team something to sink their teeth into. Make informed identifications of specific opportunities to improve business practices and property performance.

Identify Business Practice Gaps

Revisit your earlier assessment of current business practices and the Energy Management Checklist. Further detail the gaps where improvements could be made, or best practices you wish to adopt. For example, you may have found that building operators never see a copy of their buildings' utility bills, missing a valuable opportunity to review energy consumption. Catalog these opportunities for inclusion in the implementation plan.

Research Competitive Best Practices

Examine industry best practices and case studies of successful organizations and properties. Glean insight from your competitors, colleagues, and service providers — for example, find out what practices your property managers have instituted for other clients that have resulted in high performance buildings. What innovations and emerging trends should you evaluate? Consider the full spectrum of energy management practices, from better operations and maintenance to more innovative strategies such as day cleaning.

KEY STRATEGY: • **Further vet and evaluate specific internal and external practices for possible adoption**

Benchmark Buildings with EPA's Portfolio Manager

Having evaluated your portfolio at a high level, benchmark the energy performance of individual properties using the EPA rating system. The simple metrics of energy consumption you developed during your initial assessment give a snapshot view, but can mask actual energy use. Factors such as building use, local climate, and energy cost fluctuations complicate the situation.

KEY STRATEGIES IN PRACTICE: CUSHMAN & WAKEFIELD

Global real estate services firm Cushman & Wakefield (C&W) uses Portfolio Manager to benchmark its managed properties. In 2007, C&W's Executive Managing Director, Frank Freda, issued a directive to C&W Regional Branch Managers that established a company-wide goal to benchmark all properties, placing emphasis on simply getting a baseline.

This clear corporate direction helped employees see the value of using Portfolio Manager for all of its clients' portfolios – critical to the initiative's success. To date, over 300 employees (property managers and chief engineers) have been trained to use Portfolio Manager, and 180 buildings have been benchmarked.

"By knowing how each property is performing, we can make more informed resource allocation decisions and better position our staff to succeed," says Joe Wick, Managing Director, Client Solutions.

Portfolio Manager, EPA ENERGY STAR's energy performance benchmarking system, removes some of this uncertainty. A free, Web-based tool, Portfolio Manager assigns buildings an energy performance rating normalized for factors like local weather and space use, providing an objective view of performance. The tool can also be used to track and monitor energy use, and give the energy team visibility into how current performance compares to targets.

Benchmark each property in Portfolio Manager and evaluate how it compares to others. Try to identify the factors that make one building rate more favorably than another, and compare this to your initial assessment. Do trends in performance hold up? If not, what may account for this? Which buildings seem to have the most potential for improvement, and why?

KEY STRATEGY:

- **Refine your view into energy performance with a more detailed, normalized rating**

LEARN MORE:

- **ENERGY STAR Portfolio Manager (*www.energystar.gov/benchmark*)**

Select Buildings for In-depth Study

Select a set of properties to focus on for a more in-depth study. Using the benchmarks established in Portfolio Manager and the trends you have identified, group buildings based on performance. The next steps will involve detailed analyses of lease language and tenant behavior, along with scoping studies to identify specific technical opportunities for improvement.

You may decide to delve into all properties, select representative samples, or simply focus on the poorest performers...

Depending on the size and composition of your portfolio, you may decide to delve into all properties, select representative samples, or simply focus on the poorest performers. There are pros and cons to each approach; whichever you choose, you'll want the results from this in-depth analysis to be expandable to other properties.

WHICH BUILDINGS TO INVESTIGATE?

Approaches for locating promising performance opportunities

APPROACH	RECOMMENDED FOR	CAUTIONS
Entire Portfolio	• Smaller portfolios • Portfolios with widely divergent building characteristics • Firms looking to keep all buildings on a single timeline	• Can be more expensive and time consuming • May result in unnecessary analysis
Representative Samples	• Larger portfolios active in diverse markets • Portfolios with "clusters" of buildings displaying similar characteristics or operations • Firms employing multiple property management and engineering companies	• Sample selection must truly reflect operational differences • Requires a more sophisticated analysis • Analysis may not translate to other properties
Lowest Performing Buildings	• Portfolios with significantly under performing properties • Firms looking for early successes and quick improvements	• May miss significant opportunities and set unrealistic expectations

Analyze Leases and Tenant Requirements

Leases are often viewed as a controlling factor in energy performance. Gauge to what extent leases impede or improve energy performance by examining lease language for your selected properties. What type of lease — gross, net, fixed-base, or a variation — is generally used? How does the lease define standard operating hours? How do other terms affect building performance?

Gauge to what extent leases impede or improve energy performance...

Further, review tenant requirements and behavior patterns. Do any properties have special considerations such as large data centers using unusual amounts of energy? Are there tenants that have long operating hours or frequently request overtime HVAC (and do they use it)?

During your analysis, look for opportunities to improve efficiency by putting new parameters and policies into place. For example, explore opportunities to reduce operating hours or set "special request" policies requiring operating hours to revert back to the standard after a period of time. Leverage new leases to establish improved standards and lay the foundation for tenant awareness of energy efficiency.

Conduct Scoping Studies

Scoping is an exercise that identifies opportunities to improve a property's efficiency through building tune-ups, enhanced operations and maintenance practices, and equipment replacements. (Scoping is somewhat similar to an energy audit, but many audit services tend to focus on equipment-oriented solutions.) A scoping study is typically conducted by third-party contractors, often as a platform for providing proposals for follow-through services. Carefully define your needs when requesting scoping services to ensure you receive the most valuable information.

Scoping should provide a general idea of the level of effort, anticipated costs, and potential energy savings for the buildings in your sample.

Solicit a scoping study in each of your selected properties, beginning with a simple walk-through and inspection of the property. While existing staff may have the qualifications to perform the assessment, an outside party often provides a fresh perspective and expertise gained through experiences in other buildings. Scoping should provide a general idea of the level of effort, anticipated costs, and potential energy savings for the buildings in your sample.

KEY STRATEGY: • Identify technical and leasing opportunities to improve energy performance

LEARN MORE: • Scoping

CREATE YOUR PLAN

By now, a picture should have emerged of the scale of the opportunities, and the strategies and tasks that will get you there. Begin ranking the opportunities, examining the implications, and outlining potential scenarios for how your team will tackle the workload.

Distill Results Into Strategies

Look through your analyses, and prioritize the most promising avenues your organization should pursue. Use the strategies listed in this publication, as well your completed Energy Management Checklist, as a starting point. Then evaluate the costs, risks, and potential returns of each business initiative.

Each business strategy you adopt will act as a guide for more detailed tasks, ensuring a methodical rationale for prioritizing work.

Strategies will vary depending on your objectives and major areas of opportunity, but should cover all aspects of real estate that your organization pursues (property management, new developments, leasing, etc.). Each business strategy you adopt will act as a guide for more detailed tasks, ensuring a methodical rationale for prioritizing work.

Create an Implementation Plan

A detailed implementation plan outlines specific actions that will fulfill your energy management strategies. It maps out next steps for the energy team and all other individuals involved, with enough detail to guide day-to-day work.

To develop your implementation plan, identify specific tasks that will bring each strategy to fruition — both for the portfolio and for individual properties. Assign responsibilities to specific individuals, giving each task a targeted timeline. For example, one portion of an implementation plan might appear below:

STRATEGY	TASKS	ACCOUNTABILITY	TIMELINE
Identify technical and leasing opportunities to improve energy performance	Select 5 representative buildings for in-depth analysis	Director of Energy Management *(Bob Smith)*	March 15th *(Energy Team Staff Mtg.)*
	Map operating hours and check with security on actual tenant usage patterns	General Manager *(Samantha Moore)*	Complete by May 10th
	Get quote on scoping selected 5 buildings from ACME Engineering	General Manager *(Samantha Moore)*	Complete by May 15th
	Sign contracts and schedule scoping studies	Director of Engineering *(Dave Steward)*	Complete by May 31st

(Sample from a portfolio implementation plan)

An implementation plan template utilitzing this format is available at BetterBricks.com/office/briefs, with example tasks and the corresponding strategies outlined for your adoption.

Note potential hurdles or windows of opportunity such as budgets, financial year-ends, rebate programs, tenant movements, and staffing levels. Include all members of your energy team and other stakeholders in the collaborative process of developing the plan.

KEY STRATEGIES:

- **Convert strategies to specific tasks, optimizing a work plan for the organization**
- **Define and monitor progress by mapping out timelines, budgets, and individual responsibilities**

TOOLS:

- **Sample Portfolio Implementation Plan**

Secure Approvals and Resources to Begin

Present your plan to your organization's senior leadership. Consider including other building stakeholders, such as owners and tenants, who have a strong interest in their buildings' energy performance. Obtain written approval from senior executives to move forward, giving them an opportunity to reassert their commitment and comment on the details of your proposal.

KEY STRATEGY:

- **Confirm senior management commitment through final approval of the implementation plan**

IMPLEMENT

STAGE 4

Begin enacting the tasks outlined in your implementation plan. Assign specific actions to key personnel, and educate staff and stakeholders on the business objectives you are trying to meet. Throughout the organization, examine and adjust business practices that impact energy, such as leasing policies, corporate purchasing, and due diligence efforts in building acquisitions. At the building level, focus on improving operations and maintenance, tuning up low-performing properties, selectively upgrading equipment, and using an integrated design process for new construction.

MANAGEMENT

Improving energy performance requires devoting attention to two areas — properties and people. Begin by communicating the organizational focus on high performance and its implications to all departments. Engaging staff and employees early on will facilitate:

- More effective team building and synergies
- A greater sense of ownership and responsibility
- Better ability to manage and track progress
- Opportunities to apply lessons learned across the portfolio
- Better quality control

Your goal is to have each individual recognize the contribution he or she can make, and set the expectation of integrating high performance strategies into everyday business practices.

Mobilize the Organization

Formally announce your energy management policy, implementation plan, and energy targets to all employees. Identify champions and build task groups around them. The energy team will help people understand how this new focus on high performance buildings applies to their department, how it affects roles and responsibilities, and the overall benefits to the organization — further reinforcing the sense of ownership and responsibility.

Additionally, outline a path for property managers and building engineers to strengthen their abilities. The collaborative relationship between property managers and building engineers — the front line of energy management — is critical to success. Provide time, resources, and training to nurture this relationship. Assist them in identifying new skills, expertise, or management techniques to focus on, and fund professional development opportunities that build confidence and abilities in these areas.

KEY STRATEGIES:

- **Engage staff and employees by communicating the rationale, scope, and expectations off the effort**
- **Build leadership capabilities among property managers and building engineers**

LEARN MORE:

- **The Front-Line: Property Managers and Building Engineers**
- **BOMA Energy Efficiency Program (BEEP) *(www.boma.org/BEEP)***

Establish Performance Incentives

Connecting energy performance to compensation, financial incentives, and other tangible rewards formalizes the relationship between energy management targets and employee motivations. Potential incentives for staff might include:

- **Financial rewards:** Establish cash bonuses, salary increases, or other monetary incentives for efforts and ideas that demonstrably enhance energy performance.
- **Career enhancement:** Include energy performance goals in professional evaluation criteria.
- **Recognition:** Provide awards, prizes, and other forms of recognition for extraordinary efforts, targets met, or innovations and initiatives that deliver energy savings.

MANAGING 3RD-PARTY ENGINEERING, CONTROLS, AND TECHNICAL SERVICE PROVIDERS

At some point every building will require the assistance of 3rd party experts. You may outsource facility management duties completely to an outside firm, or just utilize specific services on a project by project basis. In either case, view this relationship as a long-term partnership, and refine your selection criteria and performance incentives to deliver on your energy targets.

To maximize the value in this partnership, keep the following "rules of thumb" in mind:

- Understand exactly what your service provider is offering. Does this fit in with your strategies for high performance? Is the offering a standard package or a customized response to your needs?
- Ask about additional diagnostic services that can fulfill other areas of your implementation plan. Do they offer ongoing energy management services, controls expertise, or methods for energy tracking and monitoring?
- Evaluate the staff qualifications for firms. Do they have relevant professional certifications? Are they registered energy engineers? Do they have controls expertise? Confirm that these individuals will indeed be working on your properties.
- Don't automatically assume the lowest bid is the best option. Evaluate proposals on the value they bring, and their alignment with the needs you have identified for each property.
- Be specific in requests for service, ensuring bids from multiple firms provide information in a standardized format so responses can be compared fairly.

Further, motivate service providers to deliver greater energy performance — namely by offering the reward of your continued business. Negotiate energy-related goals and milestones in contracts.

KEY STRATEGIES:

- Link financial and career advancement to meeting energy performance targets
- Contractually define energy performance responsibilities for service providers

LEARN MORE:

- Motivating and Rewarding Success

Refine Purchasing Procedures

Strive to have all purchases and contracted services enhance your program. Examine who makes purchases in your organization, and what policies — if any — are used to finalize decisions. Then establish guidelines that make energy efficiency a consideration in any expenditure. Develop a life-cycle cost analysis framework for major purchases, and choose service and product providers with proven, cost-effective performance. Areas of organizational spending that can affect energy performance include:

- **Off-the shelf products:** Set performance standards for products your organization purchases, and establish recommended standards for items purchased by other parties — tenants or third-party property managers. For office equipment (e.g. copiers, fax machines, or computers), kitchen appliances in breakrooms, or spare light bulbs in the maintenance closet — examine the potential effect on energy consumption. When available, specify ENERGY STAR-qualified products.
- **Capital equipment:** When it becomes advantageous to replace or upgrade a major piece of equipment, develop criteria for investment that adequately considers the total cost of ownership — or life-cycle cost — of the purchase. Initial price is important, but the operational cost over the life of the purchase should also influence the decision. Include expected maintenance costs, man-hours, and other considerations in your calculations. Additionally, minimize or down-size your needs by taking a staged approach to energy management, first maximizing efficiencies through operational adjustments and low-cost improvements. This can potentially delay or reduce the cost of capital upgrades.

- Service providers: Select service providers based on proven energy performance and superior levels of service. Establish a list of questions to ask references, and develop contractual language that outlines expected responsibilities, performance objectives, and payment incentives. Negotiate accordingly, and make final selections based on demonstrated history, willingness to innovate, and eagerness to win and keep your business.

KEY STRATEGY:

- **Ensure financial expenditures made at all levels of your organization reinforce, rather than counteract, energy management objectives**

LEARN MORE:

- **Purchasing Guidelines**
- **Life-Cycle Cost Analysis**

Establish Tracking and Reporting Procedures

Senior leadership, team members, investors, tenants, and others need to understand the status of your implementation and the results obtained to date. As part of the energy team, you will need real-time information on the success of specific tasks, identifying promising areas and uncovering efforts that are falling below expectations. Further, an open flow of information and exchange of data will facilitate a more motivated and informed team.

KEY STRATEGIES IN PRACTICE: CUSHMAN & WAKEFIELD

Cushman & Wakefield makes available to regional property managers their properties' EPA energy performance ratings in order to allow managers to rank their properties and better understand how they compare. They also publicize a portfolio-wide rating, propagating the idea that each building's performance has an impact on company-wide performance. Sharing this data allows Cushman & Wakefield to spot low-performing buildings, and they send their best engineers — or energy "SWAT teams" — to address the problems.

Establish a methodology for collecting and publishing results, emphasizing accuracy, timeliness, and transparency. Customize procedures, content, and formats for periodic reporting that are appropriate to the concerns of various stakeholders:

- Owners: Reporting to owners validates their investments and empowers better decision-making.
- Property managers and building engineers: Share information among building operators to establish a dialogue, create an internal resource pool, and enhance synergies.
- Tenants: As appropriate, convey energy and environmental performance metrics to inform and educate tenants about building-specific progress.
- Other stakeholders: Summarize your high performance goals and accomplishments in media such as press releases, Web pages, annual reports, and sustainability reports.

KEY STRATEGY: • **Build an information stream that provides informative and actionable data to key stakeholders**

LEARN MORE: • **Energy Transparency & Reporting**

STATEMENT OF ENERGY PERFORMANCE

Portfolio Manager can generate a Statement of Energy Performance (SEP) for each benchmarked property, which can be useful in conducting market transactions. It provides a building's EPA energy performance rating, site and source energy intensity, annual energy costs (total and per square foot), and annual carbon emissions equivalents. The SEP is becoming an easily interpreted industry standard for documenting building performance at a high level.

MARKET TRANSACTIONS

The impact of buildings' energy efficiency flows to all aspects of commercial real estate, and energy expenses can significantly affect the financial success of a transaction. Yet energy's role is often ignored or minimized in contracts, due diligence efforts, and other analyses and negotiations. Develop a habit of integrating energy considerations into investment analyses, negotiations, and financial decisions regarding leasing, acquisitions, and dispositions.

Define a Strategic Leasing Approach

Too often, leasing documentation begins from a standard template that hasn't been reconsidered in years. In reality, everything in a lease is negotiable, and old or outdated language should be examined in the context of your energy policy.

> ***In reality, everything in a lease is negotiable…bring energy performance into all leasing discussions…***

Develop a standard practice to bring energy performance into leasing discussions. In all negotiations, be armed with an understanding of the potential impact of each lease term and a predetermined strategic approach. Enter negotiations with pre-crafted language for high performance woven into your lease template.

Three main components of the leasing process impact energy performance and its financial benefits — how utility costs are allocated, how leases are administered, and what tenant improvements are provided.

How utility expenses are allocated in the lease: Leases allocate utility expenses among owners and tenants in a variety of ways, but in all methods, you can influence the profitable management of energy performance for greater value. In general, there are three approaches:

- **Gross leases:** The building owner pays all utility expenses.
- **Net leases:** Tenants pay all utility expenses.
- **Fixed-base leases:** The building owner pays a certain amount of expenses (as defined by a "base year" or an "expense stop") and tenants pay the remainder.

Decide what type of lease works best within your market dynamics. Do you want to migrate towards all gross leases and capitalize on energy efficiency? Does it make sense to partner with tenants in net leases, collectively working to reduce operating expenses? Would you prefer to negotiate language case-by-case? As leases roll over, you have a chance to shift toward your preferred structure, so be prepared with answers to these questions.

Your leasing approach can be utilized to create value for all parties involved — owners, building operators, and tenants.

How leases are administered: How are your leases reviewed, negotiated, approved, and enforced? How are capital expenditures passed through to tenants? When answering these questions, consider the following areas:

- Communication: Integrate engineering staff in the technical review and approval of leases, and educate brokers, tenant representatives, and attorneys on the links between energy efficiency and leasing. Keep information channels open so that parties are on the same page regarding how energy issues are represented to current and prospective tenants.
- Enforcement: Once the lease is in place, ensure that tenants don't derail your energy efficiency program with operations that stray from lease terms. For example, if your lease prohibits incandescent light bulbs, periodically spot-check tenant spaces.
- Pass-throughs: Lease language often permits the transfer of energy efficiency project costs to tenants. This option may initially seem appealing, but doing so may cut off opportunities for even greater value. Prior to passing costs through, examine current market conditions and the relationships with tenants. Consider different outcomes if you were to assume the costs of the project. Can you capitalize the savings into greater asset value? Will the value gained through improved tenant relations and space competitiveness outweigh the initial project expenditures?

Your leasing approach can be utilized to create value for all parties involved — owners, building operators, and tenants. For example, you may be able to translate energy savings into more favorable lease terms when leases are up for renewal. If you can demonstrate to tenants that energy performance improvements have reduced their operating expenses by a certain amount, you may be able to increase their rent by the same amount. They may be spending the same amount as the previous lease term, but you'll be receiving a greater share.

ANALYSIS PARALYSIS: DON'T OVER-THINK THE LEASE...

Energy efficiency efforts are sometimes viewed unfavorably because of the complicated ways that leases allocate costs and savings. While approving certain improvements does require financial rigor, many others can be enacted without a detailed cash-flow model.

The following situations may be opportunities to pursue energy performance efforts with little or no leasing analysis:

- You're implementing low-/no-cost operational improvements with no need for capital recovery
- Owners/management have decided to absorb the costs
- You have a gross lease in place, where owners capture energy cost savings
- Affected tenants are directly metered or sub-metered for energy use, allowing for simplified billing
- You have a fixed-base lease and the estimated energy expense savings are less than the escalation charges presently paid by tenants
- You have homogeneous lease clauses and/or tenants that simplify allocations

Be realistic, however, about the amount of leverage you have in this area. Instead of using energy savings for your direct financial benefit, you may want to demonstrate to tenants that you have absorbed these costs to save them money. This can improve relationships and enhance the likelihood that you'll be able to extend or change the lease in other favorable ways. Alternatively, you may wish to use energy savings to fund additional building improvements or amenities that will help attract and retain tenants.

KEY STRATEGY:

- **Create a methodology for negotiating, administering, and vetting lease terms against energy performance goals**

LEARN MORE:

- **Leasing & Energy: Allocations**
- **Leasing & Energy: Cost Modeling**
- **Leasing & Energy: Administration**

KEY STRATEGIES IN PRACTICE: TIAA-CREF & 6500 WILSHIRE BLVD

The team at 6500 Wilshire Blvd., in Los Angeles, CA, established a leasing approach that maintains and enhances the integrity of their energy management program. At the property, which is owned by TIAA-CREF, leasing is a collaborative process. The chief engineer, property manager, and leasing agent communicate regarding all potential leases.

Any specific or unusual requests from potential tenants that could impact energy performance are addressed by educating the prospective tenant on alternatives that will sustain the building's exceptional performance. This integrated approach aims to ensure that no lease is ever signed that will degrade energy efficiency. Ultimately, the chief engineer must approve all leases before they can go into effect.

The team's approach to leasing is one of many practices that have earned 6500 Wilshire accolades. Other strategies include prohibiting incandescent lights, utilizing a sophisticated energy management system, and implementing an extensive preventative maintenance program. Such sustained efforts have earned the building the ENERGY STAR each year since 2002.

Leverage Tenant Improvement Projects

Tenant improvements are the third component of a lease negotiation to consider in your implementation plans. Modifying office space to meet tenant needs can potentially enhance or degrade a building's energy efficiency. In essence, your tenants are re-designing your building one space at a time — potentially altering performance levels you worked hard to obtain. Changes in space layout, lighting, airflow, space usage, and occupancy levels all affect energy consumption.

In essence, your tenants are re-designing your building one space at a time — potentially altering performance levels you worked hard to obtain.

To counter this, set up guiding principles to follow in the tenant improvement process. View these projects as an opportunity to improve asset value, not simply a cost to bear. Techniques might include:

- Reducing the number and cost of tenant improvement projects by adopting modular and flexible (and energy-efficient) infrastructure such as underfloor air distribution systems, task lighting, and open floor plans that maximize natural daylight

- Improving energy tracking and allocation efforts by installing sub-metering technologies
- Reducing the energy load associated with the space by incorporating more aggressive energy-efficiency standards for equipment
- Delaying the purchase of lighting fixtures and VAV boxes, waiting until space layout, operating hours, and tenant needs are fully defined
- Hiring a design team familiar with your energy goals and targets, preferably with experience in energy modeling and energy-efficient systems

Determine the approaches that align with your business objectives — and then set expectations and guidelines for property managers, leasing staff, and brokers. In negotiations, position your improvement packages as an increased service level, or as a better way to meet tenant needs. Be prepared to demonstrate to tenants how your space can reduce their total occupancy costs when considering rent expenses, tenant improvement allowances, and operating expenses.

KEY STRATEGY: • **Exploit tenant improvements as a window of opportunity for gains in energy efficiency**

LEARN MORE: • **Energy & Tenant Improvements**

IS MANDATORY PRODUCT LABELING COMING TO THE REAL ESTATE MARKET?

Like the standard label of ingredients mandated by the FDA, or the miles-per-gallon sticker on a new car, disclosure of a building's energy performance may soon be required by law. In 2007, the California state government passed a bill requiring commercial building owners to disclose ENERGY STAR ratings and other data to prospective buyers and lenders for a building being sold, leased, or financed. The requirement is effective as of January 1, 2010. And in the U.K., the sale, lease, or construction of all commercial buildings will be accompanied by an "Energy Performance Certificate" as of October 2008. Will other governments follow suit?

Adopt Energy-related Acquisition and Disposition Criteria

Energy factors into all business transactions and building management processes for your portfolio, whether or not it's explicitly stated. Acquisitions and dispositions are no exception. Develop expertise in evaluating energy consumption as part of "best-use" and investment analyses for your portfolio. Create customized formulas and criteria for your organization.

Upon possession, can you immediately improve NOI through improved energy management?

When considering an acquisition or disposition, use these criteria to evaluate energy performance during investment analyses. Either perform this evaluation internally or outsource it. During the due diligence process, ask sellers if they've benchmarked their buildings using Portfolio Manager, and if so, obtain a Statement of Energy Performance. If possible, rate the energy performance of each potential new acquisition that hasn't already been benchmarked.

Then utilize the experience gained in your current portfolio to guide decisions. Gauge what potential improvements might make sense, and uncover hidden opportunities. For example, upon possession, can you immediately improve NOI through improved energy management?

Likewise, when selling your buildings, market them as high performers and negotiate accordingly. If the property qualifies for the ENERGY STAR label, obtain a Professional Engineer's certification and apply for the label. Prepare a Statement of Energy Performance or other documentation confirming your property's efficiency. Utilize tenant retention and satisfaction rates, rent premiums, and net operating income increases as evidence of greater value.

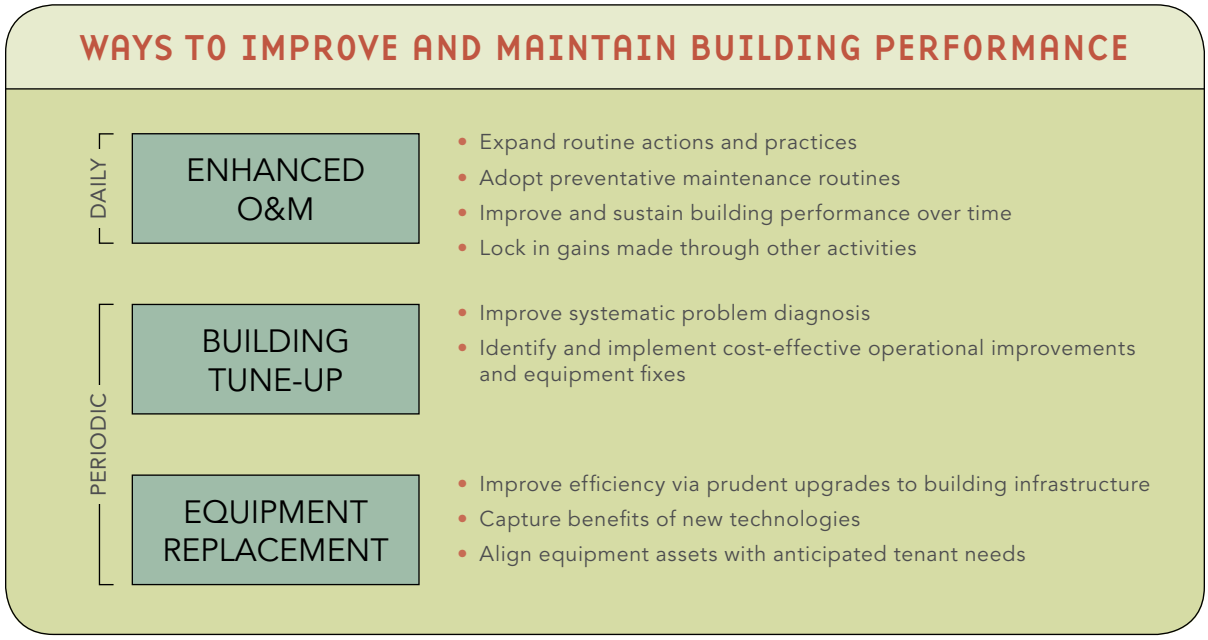
KEY STRATEGY:

- **Assess and evaluate current – and potential – energy cost implications on NOI and final bidding prices of properties**

BUILDING OPERATIONS

The bulk of your efforts will occur at the building level, reducing energy consumption in existing properties and establishing an operational excellence platform to maintain performance over time. Steps for improving performance generally fall into three categories: building tune-ups, enhanced operations & maintenance (O&M), and equipment replacement. Whether performed every day or on a multi-year cycle, together these activities form a cohesive approach to energy management:

WAYS TO IMPROVE AND MAINTAIN BUILDING PERFORMANCE



Given each property's unique circumstances, there is no single linear sequence for these activities. In most cases, some combination of all three strategies will be required. By positioning each phase of activity as groundwork for future performance gains, you'll create a cycle of continual improvement.

However, there are a few guiding principles to follow when implementing improvements:

- Focus on inexpensive and operational improvements first, reducing energy loads prior to purchasing equipment. You will be able to better size systems and equipment.
- If similar tactics would benefit multiple buildings, consider bundling projects into contracts to achieve economies of scale.
- Strategically time activities around anticipated tenant changes and improvements, building sales, and budget cycles.

Expand Tenant Requirements Analyses and Scoping Studies as Needed

Previously, you assessed tenant requirements and performed scoping studies for a chosen set of buildings. Now, expand these analyses as appropriate to other buildings in the portfolio. For example, if your earlier review focused on the lowest performers in the portfolio, extend these efforts to the balance of your portfolio. If you acquired new properties since your previous analysis, assess those buildings as well. These latest analyses will help you refine your view of each property's needs and appropriate steps for addressing them.

Schedule Building Tune-ups

A building tune-up is a periodic (every 2-5 years) process intended to identify and implement cost-effective operational improvements. Changes resulting from a building tune-up may include calibrating and adjusting building controls, augmenting or retrofitting the lighting system, instituting procedures to better manage supplemental loads, adjusting equipment operating schedules, and fixing improperly functioning equipment. Tune-ups involve several key steps:

- Examine and analyze the building through an on-site inspection and conversations with building operators (using scoping results to supplement the analysis)
- Create an action plan recommending operational changes that will improve energy performance
- Develop further recommendations for action, which may include enhanced O&M procedures and equipment replacement opportunities

Because building characteristics change over time, tenant requirements evolve, and equipment performance may shift, properties should be tuned-up on a regular schedule. This allows for a practical check against changing performance levels and provides the chance to exploit new opportunities to reduce energy use that did not exist during the previous tune-up.

Building characteristics change over time, tenant requirements evolve, and equipment performance may shift...

Evaluate your portfolio and establish a time frame within which each property or all properties will have building tune-ups. For example, in a 15-building portfolio, consider planning tune-ups for five buildings per year over a three-year period, beginning with the lowest-performing buildings. Then monitor building usage, tenant turnover, and other operational characteristics that may necessitate additional tune-ups. In between, maintain performance levels and lock in savings over time through an enhanced O&M program.

KEY STRATEGIES IN PRACTICE: ASHFORTH PACIFIC

Ashforth Pacific, a Portland, Oregon based investor, developer and property management firm, takes a cost-conscious approach to improving its properties' energy and environmental performance. Focusing on less expensive operational and maintenance techniques, this strategy emphasizes day-to-day "best practices" as a means to meet energy targets.

"I call it 'enlightened management.' There are always opportunities to enhance efficiency without spending any money." Says Wade Lange, Vice President of Property Management.

As an example of their successes, 2006 energy consumption in their Lloyd District portfolio in Portland was nearly two million kWh lower than 1998 levels.

KEY STRATEGIES:

- **Exploit cost-effective operational techniques for gains in energy performance**
- **Recalibrate building operations to prevent performance drops due to changing conditions**

LEARN MORE:

- **Building Tune-Ups**

Enact an Enhanced O&M Plan

O&M consists of routine, ongoing activities to maintain and prevent equipment failure or decline and to ensure tenant satisfaction. Enhanced O&M goes beyond the basics, significantly improving energy efficiency and sustaining performance over time. Additionally, an enhanced O&M plan greatly helps to extend equipment life, and alerts operators to performance problems before they require emergency repairs. Enhanced O&M forms the backbone of overall energy performance – and is the reason why numerous studies show that older, well-run buildings can outperform buildings that are newer but poorly operated.

Engage the expertise of people within your organization in developing an enhanced O&M program. Consider including outside consultants along with your building operators in a review of current O&M practices to glean insight into potential improvements. The enhanced O&M program should include the following key components:

- Track and monitor building energy use and equipment performance indicators
- Review and improve system documentation
- Regularly revise preventative maintenance activities
- Develop staff expertise

KEY STRATEGY: • **Maintain building performance levels over time through operational "best practices"**

LEARN MORE: • **Enhanced Operations and Maintenance**

Evaluate and Prioritize Equipment Upgrades

Eventually, equipment will wear out or new technology will emerge. When this occurs, smart capital investments will enable you to leverage new equipment to improve your portfolio's energy performance. Before investing, ensure you have maximized less expensive and operational methods to reduce energy consumption. In doing so, you may limit or reduce the size of required investment.

Resist the temptation to boil the project down to a single number, such as a payback period...

Work with financial staff to evaluate projects and seek approvals. Utilize the purchasing guidelines developed earlier and provide a life-cycle cost analysis that details the initial, operational, and energy costs associated with each item. Consider the likelihood of potential energy price increases or inflationary pressures, and factor in utility, government, and association incentives and rebates that may apply. Resist the temptation to boil the project down to a single number, such as a payback period or cost-recovery date. These metrics — while commonly used — can mask more subtle cash flows and even lead to missed financial opportunities.

Then revisit your leasing strategy, and examine the implications of the capital upgrade on tenants. Will you attempt to recover the cost of the investment through a "pass-through"? Are any leases soon up for renewal or negotiations underway that you can align with the investment? How does the project time horizon match up with the anticipated holding periods? When making your recommendation, present not only the hard numbers, but also the practical realities of implementing a capital project.

KEY STRATEGY: • Selectively pursue equipment replacements that make economic sense over a given investment life-cycle

LEARN MORE: • Shortcomings of Simple Payback Period

NEW DEVELOPMENTS

New developments are opportunities to be on the cutting edge of high performance buildings. When designed, commissioned, operated, and maintained properly, new buildings can have a radically different energy profile than those built just years ago. In fact, many leading architects and developers are actively pursuing projects that consume "net-zero" energy or that will be "carbon-neutral," with combined strategies of on-site renewable energy technologies, selective purchasing of "green" power, and a dedicated pursuit of energy efficiency.

New buildings can have a radically different energy profile than those built just years ago...

However, getting there requires a different approach to planning, design, and construction. Energy targets and design goals need to be established early on, and a dedicated, multi-disciplinary team working in a collaborative environment is necessary to bring all the pieces together.

Take an Integrated Design Approach

Traditionally, designing a new building involves linear steps carried out sequentially by owners, architects, engineers, and contractors. Integrated design, however, unites these groups from the onset. The process considers the building's site, structure, landscaping, occupant use, and systems holistically, and optimizes their interactions for maximum performance — creating benefits that wouldn't exist independently.

Following an integrated design strategy requires embedding its principles into all stages, from pre-design to post-occupancy. Therefore, it requires a collaborative, multi-disciplinary design team to streamline and coordinate the process by which climate, architecture, building use, energy, and environmental issues are considered together. It also requires consideration of the overall value and life-cycle costs of the project and its various elements.

KEY STRATEGY:

- Create synergies among disciplines and design elements to reduce or eliminate energy loads

LEARN MORE:

- Integrated Design
- Energy Modeling

Define Project Targets

All new developments begin with a vision of the end product. To achieve a high performance building, you'll also need to create a vision of how the building will operate. Set a clear, objective energy performance target for each new development, and state it in project documentation to establish accountability. Be sure your performance toward that goal can and will be measured against a specific reference point or baseline. The design team will use your performance targets to evaluate design options, strategies, and systems.

Energy codes should be viewed as the floor, not the ceiling...

Consider the general performance targets for new developments you may have established in the organization's energy management policy. For some projects, it may be possible to exceed those, while others may prove more challenging. Don't feel constricted by building energy codes — these are the minimum standards, and should be viewed as the floor, not the ceiling.

KEY STRATEGY: • **Set a clear energy performance target to guide the design team's efforts**

Hire the Right Team

When searching for a design firm, seek experienced companies and individuals that have a history of delivering high performance buildings, with expertise in specific areas such as integrated design, energy modeling, and life-cycle cost analysis. Also consider fundamental management, leadership, and team building skills, which are necessary to coordinating a collaborative integrated design team.

Look for demonstrated experience and effectiveness, but allow for some degree of on-the-job training and research — though extremely qualified firms exist, designing and delivering high performance buildings is still an emerging field. Consider hiring a sustainability consultant, and then working with them to search for architects, engineers, builders, and other experts.

Secure the team's commitment with transparent contracts that include specific provisions for energy performance. Develop payment schedules and deadlines that allow for higher-than-average time spent early in the design process.

KEY STRATEGY:

- **Select a team capable of delivering a high performance building**

LEARN MORE:

- **Hiring the Right Team — Integrated Design Services**
- **Sample RFP for Architectural Services**

Guide and Verify Design Through Commissioning

Commissioning is a technical verification process and quality check for building systems. It provides a baseline for performance and ensures that design and building targets are met. Ideally, a third-party firm is contracted as your agent to commission the building. Retain their services from the earliest design stages to document design intent and review drawings, and continue through the first year of occupancy. Commissioning also sets the foundation for a sustainable energy management program. Additionally, green building certification programs (such as LEED) require commissioning as a prerequisite for certification.

Before and during occupancy, the commissioning agent will assist in preparing building operators to properly operate and maintain the building, and train staff on building systems and controls. At this stage, create a resource library of system manuals and documentation.

KEY STRATEGY:

- **Enable a quality control advocate to independently confirm systems function as designed and performance goals will be met**

LEARN MORE:

- **Commissioning**

Conduct Post-occupancy Activities

The first year of occupancy is an important period, during which building operators endeavor to reach and maintain optimal performance levels. Actual operating conditions will inevitably differ from the assumptions made during design; assessing the resulting effect on operations will better allow building operators to make the adjustments necessary to meet performance targets. Activities to consider during the first year and beyond include:

- Revisit commissioning activities. Though the standard commissioning process will continue throughout the first year, additional calibration and testing may be required periodically, especially due to seasonal variations.
- Establish procedures for tenant improvements that align with design intent, so that build-outs do not hinder the energy management program.
- Assign responsibility for tracking energy consumption and benchmarking performance using Portfolio Manager.
- Conduct post-occupancy evaluations after the first year to review tenant behavior, comfort, and energy-related leasing activities.
- Assess and adjust development practices based on lessons learned from each project.

KEY STRATEGY: • **Facilitate the transition from initial energy performance levels to sustained high performance**

CAPITALIZE

STAGE 5

You are now ready to reap the financial rewards of high performance, leveraging your successes to generate income, value and competitive distinction. However, without an active marketing plan, your successes may go unnoticed. Get the word out, and solidify your efforts by putting the organization on a path to continuous improvement. Seek recognition, reward the contributions of the team, rigorously evaluate what worked and what didn't, and transform those lessons into future strategies

MARKET YOUR ENERGY PERFORMANCE

Different audiences have different reasons to be interested in the benefits of a high performance building. Tenants, investors, and capital markets may have corporate or shareholder mandates to meet sustainability goals, a desire to enhance worker productivity and satisfaction, the need to find and retain talented professionals, or avenues to meet government and regulatory pressures. Determine how best to position your holdings to address these needs, and build a marketing effort around it.

Craft Key Messaging

Energy performance says a lot about your company. You can guide these perceptions. Make the effort to define exactly what it should say about your firm. Should it imply superior management? What about an environmental focus and socially responsible organization? Innovation? A skilled property management and engineering team?

Energy performance says a lot about your company...guide these perceptions...

Work with your marketing team to refine these concepts into defensible and compelling arguments, in essence building your "brand." Tailor these themes to specific audiences. Demonstrate to your tenants how your high performance property will reduce their occupancy costs and enhance employee satisfaction. Investors will respond to improved income and greater value. All stakeholders will find the environmental message compelling.

Use these messages to draw distinction between you and your competitors, forming the backbone for future marketing plans.

KEY STRATEGY: • **Define the perceptions that you want the market to have about your company**

Get Recognized

Being recognized for your achievements will add credibility to and accelerate your marketing efforts. Identify applicable awards, certifications, and other programs that formally recognize energy achievements across the real estate industry. Various programs are offered by associations, governments, utilities, and non-governmental organizations at the local, regional, and national level. Some examples include:

- **BetterBricks:** The BetterBricks Awards recognizes leaders behind the highest-performing commercial buildings in the Northwest.
- **U.S. Environmental Protection Agency (EPA) ENERGY STAR**: The ENERGY STAR label certifies properties whose energy performance rates in the top 25% of the nation. The ENERGY STAR Leaders program recognizes portfolio-wide improvements to energy performance. The coveted ENERGY STAR Partner of the Year award is given to organizations that demonstrate outstanding accomplishments in energy management.

- **U.S. Green Building Council (USGBC):** The USGBC certifies green buildings with the Leadership in Energy and Environmental Design (LEED) designation in a variety of categories, including new construction (LEED-NC), existing buildings (LEED-EB), core and shell (LEED-CS), and commercial interiors (LEED-CI).
- **Building Owners and Managers Association International (BOMA):** BOMA's The Office Building of the Year (TOBY) and Earth Awards honor building management teams for superior office buildings and building management, and for preserving the internal and external environments of their properties, respectively.
- **National Association of Real Estate Investment Trusts (NAREIT):** NAREIT's Leader in the Light award recognizes energy-efficient and environmentally-conscious property management.
- **American Institute of Architects (AIA):** The AIA's Committee on the Environment annually selects ten of the nation's top new examples of sustainable design.
- **Urban Land Institute (ULI):** ULI recognizes superiority across the development process, conferring Awards of Excellence on developments that meet evaluation criteria such as resourceful use of land and sensitivity to the environment.

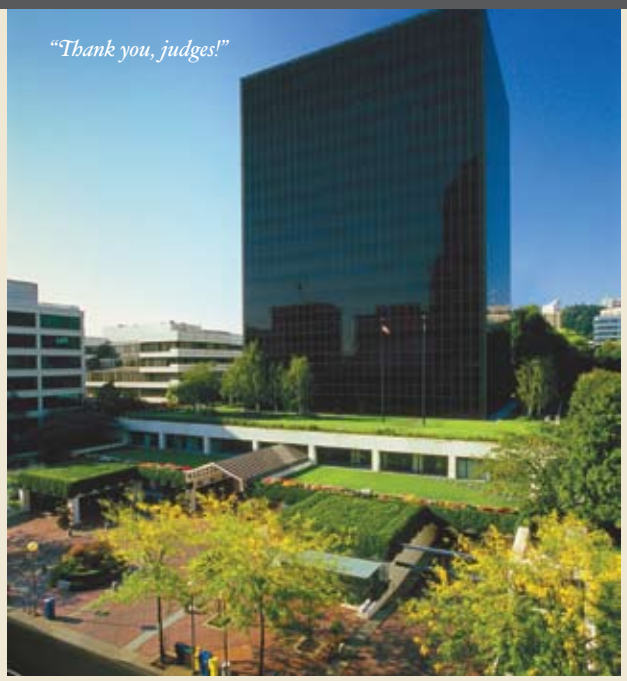
KEY STRATEGY: • **Seek third-party acknowledgments that reinforce your key messages**

KEY STRATEGIES IN PRACTICE: RUSSELL DEVELOPMENT COMPANY

The Market 200 Building, in Portland, OR is one of the Russell Development Company's signature properties. In 2006 it became the first multi-tenanted office building in the country to receive a LEED-EB Gold certification, and the team wasted no time promoting this achievement.

Long a leader in energy management and sustainable building operations, the staff of Market 200 prides itself on its accomplishments. Traci Wall of Cushman & Wakefield, and Property Manager of Market 200, agrees, saying "We love telling people about our building."

200
MARKET BUILDING



In 2006, the 200 Market Building achieved an Existing Building Gold LEED® designation - the first building of its kind to win the award in America.

"LEED for Existing Buildings maximizes operational efficiency while minimizing environmental impacts. It provides a road map to drive down operational costs while increasing occupant productivity in an environmentally responsible manner."

- U.S. Green Building Council

Presented by the City of Portland Office of Sustainable Development.

Three-time winner:
2001, 2003, 2007.

"From lighting to air quality, from food composting to water conservation, since 1989, the owners of 200 Market have taken progressive steps to ensure that this existing building has a smaller and smaller footprint. Not only do energy and water efficiency save money - but occupancy in the building has remained around 99% - quite possibly because people feel good about working in a building that cares about their health and the environment."

- BEST Award Judges

BETTERBRICKS
bottom line thinking on energy.

BetterBricks is an initiative of the Northwest Energy Efficiency Alliance.

Winner: 2006

"The actions taken at the 200 Market Building are inspiring and demonstrate what can be accomplished with an existing building. The continual efforts to improve the structure over the long term have established a commitment to their tenants and to high-performance buildings."

- BetterBrick Award Judges

WWW.200MARKET.COM • FOR LEASING INFORMATION CONTACT TOM USHER AT CUSHMAN & WAKEFIELD 503.279.1777

Tell the Story

Effective marketing of high performance portfolios requires a disciplined effort to identify and reach your target audiences. Create a marketing plan with a compelling sales pitch, based on your key messaging defined earlier. Examine every point of contact between you and your audiences, and strategically time your outreach. Whether it is a newspaper advertisement, a property listing, an annual report, or a simple tenant tour, ensure that every time people learn about your company, they learn about your successes in energy performance.

Ensure that every time people learn about your company, they learn about your successes in energy performance…

Some proven marketing techniques include:

- Creating a "talking points" brief for employees, providing consistency in messaging
- Incorporating your story into Web sites, tenant newsletters and tours, and property listings
- Identifying ambassadors from your staff, your tenants, and their employees — often untapped sources of "marketers"
- Showcasing and publicizing awards and certifications
- Hosting special events to educate tenants and re-engage employees, brokers and other stakeholders, and participating in existing community or industry events
- Pitching ideas for news articles and case studies to media contacts

KEY STRATEGY: • **Deploy a comprehensive marketing effort to communicate your key messages**

LEARN MORE: • **Marketing a High Performance Building**

COSTAR NOW LISTS EPA ENERGY PERFORMANCE RATINGS

To help the market factor the benefits of "green" buildings into transaction decisions, CoStar, the leading provider of commercial real estate information in the U.S. and U.K., now includes EPA energy performance ratings and LEED certification data in the building listing information available in its massive online database.

Says Andrew Florance, President and CEO of CoStar, "I believe adding the ENERGY STAR and LEED ratings to properties throughout our database will make it easier to identify high performance buildings in markets across the country, and heighten awareness about the connection between asset values and energy efficiency within our industry."

Educate Leasing Agents and Brokers

Brokers, leasing agents, and tenant representatives are on the front lines of property marketing, facilitating your leases. Educate them on how to best communicate the competitive advantages of your high performance building, and its appeal to tenants and owners. Use the following guidelines to help agents and brokers become advocates for your high performance portfolio:

- Require that agents and brokers have an understanding of energy performance. Include these expectations in both RFPs and contracts.
- Include the ENERGY STAR Statement of Energy Performance as a transactional document in marketing, due diligence, appraisal, and sales processes.
- Consider how agents and brokers are compensated in your market. Are there incentives to promote high performance features? Will the broker be willing to walk away from a commission if the prospective tenant doesn't agree with your leasing policy?

KEY STRATEGY: • Help agents and brokers become advocates for your high performance portfolio

LEARN MORE: • Sample Office Space Marketing Sheet

CAPTURE THE VALUE OF HIGH PERFORMANCE

Marketing builds awareness, but to realize the benefits of a high performance portfolio, awareness must be converted to dollars. Use all transactions to position energy efficiency as an asset and lock in financial rewards.

Calculate Direct and Indirect Results

Marketing high performance buildings involves demonstrating higher value to prospective tenants, buyers, financiers, and appraisers. Good salesmanship is a factor, but you'll need to provide evidence — facts, figures, and anecdotal examples.

Tangible numbers are best, but an illustrative story or two will help convince many skeptics.

Begin by tracking the costs of your efforts, and then quantify the impact cash flows have on net operating income. Estimate the potential rise in asset value those factors could support. Break out the impacts for various stakeholders, such as tenants, owners, or shareholders. Compare the data with industry norms, and assess your financial position in the market.

There may be some skepticism among potential buyers and tenants regarding this data. To allay these concerns, utilize objective, third-party experts as means to validate your high performance claims. Where practical, rely on rating systems (such as ENERGY STAR), independent assessments, commissioning reports, energy audits, or other professional opinions of energy performance to back up your internal data.

While more difficult to quantify, several non-financial factors have a large role in the perception of value. Look for evidence of the value you have created through enhanced tenant satisfaction numbers, occupancy rates, quicker absorption, lease renewal rates, occupant productivity, and avoided risks. Collect quotes, anecdotes, or other indicators about your efforts that strengthen your sales argument. Tangible numbers are best, but an illustrative story or two will help convince many skeptics.

Establish mechanisms to track this information over time. When a quick-paced deal appears, you'll have access to the numbers you need.

Leverage Results in Market Transactions

Factor all of this evidence — calculations, case studies, and third-party assessments — into your business dealings, including leasing, proposals, bids, due diligence processes, appraisals, and sales. Further, bring these results into your interactions with lenders, banks, underwriters, and investors.

Capital markets will want information on factors such as risk, absorption, and rents, but may not realize the impacts that high performance buildings play in these areas. Strengthen your negotiations by bringing the hard data, examples, or tenant testimonials you've collected. Be prepared to defend your analysis and the reasoning behind it. In many ways, the work you are doing is still new to the market, and standard assumptions must be adjusted.

Likewise – as discussed above – tenants, brokers, investment groups and others may not realize the true value delivered through your energy management efforts. It is up to you to convince them. Bring the data forward, and negotiate from a position of strength. Frame the debate by insisting that your building has more to offer, and then demonstrate why.

In many ways this step is the most crucial in any energy management effort. Value does not exist until a buyer pays a price for it. Until you can convert your efforts into a higher sales price, a lease renewal, or greater rents — the full potential of high performance will remain elusive.

KEY STRATEGIES:

- **Build an evidence file of data and examples to bolster future negotiations**
- **Extract increased value from other parties through informed business dealings**

LEARN MORE:

- **Appraisals and Energy**
- **Underwriting**

CONTINUE TO INNOVATE AND ACHIEVE

High performance portfolios require an ongoing effort to continually modify practices, make further improvements, and measure progress. Learn from each experience, applying lessons about effective strategies and technologies throughout the rest of your portfolio. Finally, ensure a continual "upward spiral" of progress by tapping into industry best practices and rewarding successful individuals and teams.

Assess Progress Against Stated Targets

Track progress against your performance goals and baselines. To facilitate this, keep building benchmarking data current, enabling real-time visibility into the impact of your energy-efficiency improvements. When performance rises, recognize what led to the improvement. If performance drops, hold discussions with the energy team and building operators to understand why and determine required actions.

Building operators and tenants may know better than anyone what worked and what didn't...

In addition, consider an annual review of your energy management policy, organizational model, and implementation plan. What worked well? What can you do better? You may need to recommend adjustments.

These reviews have a number of benefits:

- Assess the usefulness of the administrative tools you've employed
- Generate insight into new actions and strategies to adopt
- Avoid repeating missteps
- Re-engage or re-assign staff members
- Provide success stories to communicate to stakeholders

KEY STRATEGIES IN PRACTICE: ASHFORTH PACIFIC

Ashforth Pacific has a reputation as a leader in energy management and sustainable buildings. Though they're proud of their successes, Ashforth leaders recognize that high performance buildings are an ongoing effort. "You can never rest on your laurels and turn your attention elsewhere," says Wade Lange, VP of Property Management. "We're always striving to improve management and efficiency and take the next steps."

CEO Hank Ashforth agrees: "We don't see LEED certification or the ENERGY STAR label as a goal or an end point. Rather, they're mile markers along the way." Employees follow the guidance laid out in the early stages of the program, but also continually revise and improve their tactics. For example, an early team established a "green" procurement policy for office supplies. After they laid the foundations for environmentally-responsible purchasing, the team was no longer necessary, but employees still periodically revisit these policies to determine whether updates are required.

A significant next step is to expand Ashforth Pacific's environmental initiatives to the rest of The Ashforth Company. "Based on our success with this program since 1999," says Hank Ashforth, "we're now looking at sustainability on a national basis."

Solicit Feedback

Listen to your energy team, executive management, and contractors throughout this process. At the property level, building operators and tenants may know better than anyone what worked and what didn't. Have these groups help you identify specific factors that affected the effort, as well as unexpected benefits of energy management initiatives. Formal mechanisms (such as surveys or meetings) and informal mechanisms ("water cooler" conversations; a quick phone call to a property manager) will provide invaluable feedback to help improve your program. Soliciting feedback is also a valuable opportunity to interface with tenants, engage them in the process, and reaffirm successes.

Tap Into Industry Networks

Your colleagues in the commercial real estate industry have a wealth of knowledge and experiences to share with you. Tap into those resources to identify best practices you can apply to your portfolio.

In addition, share your experiences — for example, write articles for industry journals or give presentations at conferences. Not only does networking provide valuable publicity for your organization; it also puts energy issues in front of a wider audience. Industry trade associations offer conferences, seminars, and other opportunities for networking and education. Options include:

- Building Owners and Managers Association (BOMA)
- Institute of Real Estate Management (IREM)
- International Facility Management Association (IFMA)
- National Association of Industrial and Office Properties (NAIOP)
- National Association of Real Estate Investment Trusts (NAREIT)
- Urban Land Institute (ULI)
- U.S. Green Building Council (USGBC)

KEY STRATEGIES:

- **Build organizational expertise by learning from your past efforts and what your competitors are doing**
- **Maintain a broad perspective by seeking input from multiple groups**

Monitor Emerging Trends and Best Practices

Keep your pulse on market trends and emerging best practices. Networking within the industry and subscribing to print and online publications are great avenues for this. Also consider participating in continuing education and certification programs. The following are some emerging trends and best practices to consider:

- **Day cleaning:** By moving cleaning to normal business hours, cleaning crews no longer require after-hours lighting and HVAC to perform their jobs. Organizations that have instituted day cleaning have also noticed other benefits besides lower energy use, including fewer tenant complaints and reduced cleaning staff turnover.

- **Security guards as energy managers:** During their nighttime patrols, security guards can ensure that lights are turned off, make notes on any equipment still running, and look for energy-saving opportunities. Consider offering incentives for energy-saving ideas brought forward by the security team.
- **Weekend hours:** Though Saturday HVAC and lighting may be stipulated in leases, conversations with tenants may reveal that you can cut energy consumption by scaling back those hours. If tenants infrequently use the building on weekends, investigate whether you can provide weekend hours only upon request.
- **Tenant office equipment:** Encourage tenants to manage their office equipment energy use by building awareness of ENERGY STAR-qualified products. Urge tenants to activate power-save features, and investigate power strips that automatically shut down non-essential devices when people leave their desks. You might even consider changing the entire business model for office equipment, providing it as part of the lease.
- **Telecommuting:** Encouraging tenants to leave the office and work from home may be a radical notion, but telecommuting is becoming more common. It offers distinct advantages — fewer people in the building translates directly to lower energy consumption, and also reduces the greenhouse gas emissions associated with their commutes. Gauge tenants' interest in this idea and promote it where applicable. Provide open, modular floor plans; build an IT infrastructure that enhances connectivity; and explore incentives for mass and alternative transportation choices.

KEY STRATEGY: • **Maintain your competitive edge by keeping ahead of emerging opportunities**

Recognize and Reward Success

A high performance building or portfolio is reason to celebrate. Many individuals have worked hard to bring about your success. Recognizing and rewarding them improves morale, motivates future efforts, and positions your organization for continued success.

A high performance building or portfolio is reason to celebrate.

In the planning phase, you established incentives for your employees. Follow through by delivering the monetary and non-monetary rewards they have earned. Acknowledge outstanding success by individuals, teams, and properties that have exceeded goals.

Inform your contractors that their energy achievements on your behalf have motivated your organization to continue doing business with them, consider them for additional assignments, and provide glowing endorsements to business associates.

KEY STRATEGY: • **Promote future successes by rewarding the efforts of individuals and contractors**

IN CLOSING

You've reached the end of the High Performance Portfolio Framework, but this is not the end of your journey. There is no distinct endpoint to energy management. The market continues to change; new drivers, technologies, and strategies will emerge; and you will strive for further improvements. You may have already reaped some of the benefits of high performance — lower operating costs, enhanced market leadership, higher asset values — but many benefits may yet surface.

The market continues to change; new drivers, technologies, and strategies will emerge; and you will strive for further improvements.

Even as we developed this Framework, the market was shifting. We are in the middle of a significant change in the real estate industry, transcending more typical, cyclical shifts such as changing interest rates, demographics, and economic health. A "perfect storm" of tenant demands, corporate responsibility efforts, rising utility prices, climate change, and workforce productivity concerns have all combined in a way that no one could have predicted, and its impact on the future of business is also unpredictable. But leading real estate companies know that high performance portfolios are, at a minimum, a risk mitigation strategy, and more likely a competitive asset to be nurtured.

It's possible that the steps in this Framework will become the norm — the minimum actions expected of a responsible real estate organization. In fact, we'd go so far as to hope that this document eventually becomes obsolete, and that a need will emerge for a whole new framework for companies that want to go above and beyond. Owners will begin to expect high performance buildings from property managers as a standard service, property managers will expect owners to support high performance strategies, and tenants will only desire high performance office space. The bottom line is that if you're not pursuing a high performance portfolio today, you will be discounted or disadvantaged in the future.

After you employ these strategies, we welcome your feedback on them. This is a living document, and BetterBricks is committed to improving its value to the market. Whether you executed these strategies or deviated from them, your experiences and observations will enhance BetterBricks resources' value for future generations of high performance portfolios. You all have something to offer.

Thank you,

BETTERBRICKS
Bottom line thinking on energy.

Energy Management Workshop

November Survey

Were your expectations met for this year?

- Way more than met_____
- More than met_____
- Met_____
- Not Met_____

What were 1-3 things you found <u>most</u> useful?

_____ ,_____ ,_____

What were 1-3 things you found <u>least</u> useful?

_____ ,_____ ,_____

What were the 1-3 'take-away' points, insight, or lessons learned?

_____ ,_____ ,_____

What could have made this year more useful to you?

_____

What, if anything, did these roundtable meetings do to support or motivate you in your efforts to improve energy management and sustainability in your organization?

_____

Was this worth your time? Yes / No

Would you like to continue the workshop next year, and if so, what frequency?

Energy Management Workshop

June Survey

What topics would you be most interested in learning about in November (circle)?

- Life Cycle Calculators for capital decisions
- Employee Engagement
- Measuring and communicating results
- Technology
- Audits or Assessments
- Renewable Energy or Credits
- Energy Procurement
- Team Building
- Certifications like LEED and Energy Star
- Other? _____

Were your expectations met for this workshop?

- Way more than met_____
- More than met_____
- Met_____
- Not Met_____

What were 1-3 things you found <u>most</u> useful?

_____ ,_____ ,_____

What were 1-3 things you found <u>least</u> useful?

_____ ,_____ ,_____

What were the 1-3 'take-away' points, insight, or lessons learned?

_____ ,_____ ,_____

Will you be coming in November? Yes / No

Was this worth your time? Yes / No