Introduction

The Greener, Greater Buildings Plan aims to accelerate energy efficiency improvement in the largest buildings in New York City (NYC). This suite of local laws requires the owners of large buildings to undertake annual benchmarking of energy and water consumption, apply the NYC Energy Conservation Code when upgrading buildings, conduct energy audits and retro-commissioning, implement lighting upgrades and install tenant sub-meters. These measures are to be implemented over time. Annual benchmarking commenced in 2011 and the first energy audit and retro-commissioning reports are to be submitted before the end of 2013. The introduction of these laws should encourage real estate owners and tenants to review their approach to energy efficiency in order to maximize the business and reputational benefits that can be achieved.

NYC’s first building energy benchmarking report\(^1\) highlights that the most energy intensive buildings use up to five times the energy of the least energy intensive buildings. Although the age and use of buildings explain part of the variation, it is reasonable to expect that management awareness, concern and capability are also factors that influence a building’s energy performance. In the NYC report, it is estimated that if the poorest performing buildings involved in the benchmark study were improved to the level of the median energy use intensity across the sample, then energy consumption could be reduced across the City by around 18% and greenhouse gas emissions could be reduced by around 20% - a significant improvement.

Many Australian commercial real estate owners and tenants have changed their approach to energy efficiency practices over the past few years. This has been in response to emerging business drivers, including increasing legislation (Table 1) and growing interest from tenants, customers and the community. The most successful firms have not just reacted to these business drivers; rather, they have adopted an approach that is best characterized as change leadership. That is, they have combined technical excellence with a comprehensive approach to engaging managers, staff and key stakeholders in the challenge of energy efficiency improvement. These firms have tried new approaches to energy efficiency, reviewed their progress and maintained the change leadership practices that have proven to be most successful for them in delivering comprehensive business benefits.

\(^{1}\text{City of New York 2012, New York City Local Law 84 Benchmarking Report, August 2012.}\)
\(^{2}\text{www.energyefficiencyopportunities.gov.au, accessed April 2013.}\)

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Requirements</th>
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<tbody>
<tr>
<td>The Energy Efficiency Opportunities Act 2006(^2)</td>
<td>Undertake energy efficiency assessments once every five years. Publicly report on the outcomes of the assessments.</td>
</tr>
<tr>
<td>National Greenhouse and Energy Reporting Act 2007(^3)</td>
<td>Submit annual reports on energy use and greenhouse gas emissions to the Australian government.</td>
</tr>
<tr>
<td>Building Energy Efficiency Disclosure Act 2010(^4)</td>
<td>Sellers or lessors of commercial office space over 2000 square meters (21,528 square feet) are required to obtain and disclose a Building Energy Efficiency Certificate.</td>
</tr>
</tbody>
</table>
The paper draws on applied and academic research across the Australian real estate and business community that has been conducted by the author, Patrick Crittenden, Director of the management consultancy, Sustainable Business. Patrick is currently completing his PhD research at the University of Technology, Sydney which examines how and why energy management practices have changed significantly in Australia since 2006. The paper does not directly compare the performance and practices of Australian and NYC real estate firms – although this topic is being considered for future research.

This white paper describes six change leadership practices that have developed over the past few years in leading Australian firms. These practices and the way in which they compare with more traditional energy efficiency practices are summarized in Table 2.

I. Approaching Energy Efficiency from a Change Leadership Perspective

Traditionally, energy efficiency in Australia had been approached as a technical initiative. An external energy auditor would typically be contracted to conduct building energy efficiency audits. The consultant would then evaluate the cost effectiveness of each of the ideas identified in the audit and present a report listing each of the technical improvements to be considered for investment and implementation.

It was found that there were several limitations to this approach. For example, a lack of management support, the limited

As a result, Australian real estate firms and tenants have been consistently ranked as energy efficiency and sustainability leaders. For example, a comprehensive survey of sustainability performance in real estate, the Global Real Estate Sustainability index, has ranked the Australian real estate industry most highly in the past two years. By way of example, one of Australia’s largest REITs, The GPT Group (GPT), has improved the energy intensity of its base building commercial office operations by 31% since 2005. GPT has also been acknowledged as a global real estate leader by the Dow Jones Sustainability Index in 2009, 2010 and 2012.

The aim of the white paper is to share new perspectives on energy management with real estate owners and tenants. It is hoped experiences in the Australia real estate community will provide new perspectives on energy management that can be used to inform the development or continued implementation of energy efficiency improvement strategies in numerous firms.

Table 2: A Comparison of Australian Energy Efficiency in Real Estate Practices

<table>
<thead>
<tr>
<th>Traditional practices</th>
<th>Change Leadership Practices</th>
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<tbody>
<tr>
<td><strong>Overall Approach</strong></td>
<td></td>
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<tr>
<td>Energy efficiency is approached as a technical initiative which primarily involves boiler room operators and external energy auditors in the process of identifying improvement options every few years.</td>
<td>Energy efficiency is approached as an organizational change initiative which aims to engage management and staff across the organization in the challenge of delivering energy efficiency improvement on a continuous improvement basis.</td>
</tr>
<tr>
<td><strong>Senior Management Involvement and Business Proposition</strong></td>
<td></td>
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<tr>
<td>Senior management is only involved in large capital investment decisions. Cost savings are presented as the main benefit from energy efficiency.</td>
<td>Energy efficiency is linked to business strategy to develop senior management support. Energy efficiency is considered to be an approach that can enhance asset values, attract and retain tenants, position buildings and develop corporate reputation.</td>
</tr>
<tr>
<td><strong>Development of Energy Information Systems</strong></td>
<td></td>
</tr>
<tr>
<td>Limited energy data is available for analysis. It is difficult to justify investment in improved metering and information systems.</td>
<td>Energy information systems are progressively developed by communicating achievements to justify additional investment over time.</td>
</tr>
<tr>
<td><strong>Frequency of Focus on Energy Efficiency</strong></td>
<td></td>
</tr>
<tr>
<td>Energy efficiency opportunities are identified through energy audits that are conducted every 3-5 years.</td>
<td>Energy efficiency is integrated into daily operational procedures, including data review by building operations teams. Energy audits are conducted on a semi-regular basis.</td>
</tr>
<tr>
<td><strong>Decision-Making Approach</strong></td>
<td></td>
</tr>
<tr>
<td>Energy audit reports and business case proposals are developed in isolation from the primary decision-makers.</td>
<td>Key decision makers and other relevant stakeholders are involved and informed throughout the process of creating business case proposals for energy efficiency projects.</td>
</tr>
<tr>
<td><strong>Relationship Between Owners and Tenants</strong></td>
<td></td>
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<tr>
<td>The owner is hesitant to invest capital in energy efficiency when the tenant obtains the benefits.</td>
<td>Collaborative relationships between owners and tenants are founded on shared benefits and developed through regular communication. This supports shared investments and improved operational practices associated with building energy performance.</td>
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</tbody>
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It was found that there were several limitations to this approach. For example, a lack of management support, the limited
availability of energy data, a focus on large capital projects and limited attention to the non-energy costs and benefits associated with each of the identified projects often meant that many energy efficiency projects within an energy audit report would not be actioned by the firm that commissioned the report (Box 1).

**Box 1: Key Limitations of a Traditional Energy Auditing Approach**

- Incomplete building documentation, minimal energy data and inaccurate energy data would limit the scope of opportunities identified and evaluated.
- Without management support or in cases where the energy audit reports were insufficiently detailed, reports would tend to ‘sit on the shelf’ and receive limited attention.
- Energy auditors without a strong understanding of the business they were auditing often didn’t account for the multiple non-energy benefits that projects could provide. This had the effect of devaluing the full potential of such projects.
- Audit reports would typically focus on potential capital projects without identifying retro-commissioning or day to day operational management options.

**Table 3: Comparing Activities**

<table>
<thead>
<tr>
<th>Change Management</th>
<th>Change Leadership</th>
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<tbody>
<tr>
<td>Planning and budgeting</td>
<td>Creating vision and strategy</td>
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<tr>
<td>Organizing and staffing</td>
<td>Communicating and setting direction</td>
</tr>
<tr>
<td>Controlling and problem solving</td>
<td>Motivating action and aligning people</td>
</tr>
<tr>
<td>Running existing systems</td>
<td>Creating systems to support growth, evolution, opportunities and hazard avoidance</td>
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</table>

Effectively, this approach meant that energy efficiency improvement was an organizational initiative that was addressed through a single “organizational silo” – that is, the technical department or “the boiler room” – in conjunction with an external technical energy consultant. Typically, there would be limited engagement with other departments or managers.

For energy practitioners this presented a dilemma. On the one hand they realized that the outcomes from these energy audits were limited. On the other hand the use of external auditors to conduct assessments was considered the most generally accepted way to progress energy management in their organizations. This approach had been reinforced by previous government programs which had required the use of external energy auditors. It had then been further reinforced by the development of an energy efficiency consulting market which had grown in response to the government programs. Many of the energy efficiency consultants found that it was beneficial for them to continue to promote the energy audit approach due to the perceived reliance of the clients on their expertise and since they were familiar with the process.

As energy efficiency practitioners within companies identified the limitations of the “traditional” energy audit approach, they sought to develop new and more effective approaches. However, since the traditional approach was very well established, doing things differently required change leadership on the part of the practitioners themselves. That is, they had to convince management of the limitations of the traditional approach and the benefits of trying new practices that aimed to accelerate energy efficiency improvement in their organizations. Rather than managing energy in the same way it had previously been done, it required practitioners to present alternative ways of doing things. To overcome resistance, energy efficiency practitioners found that they needed to create new perspectives and vision about what was possible and why. Setting new direction and bringing a range of internal stakeholders along for the journey was a critical part of the process. Further, since the existing approaches were inadequate, new systems and processes needed to be developed. Once developed the challenge for practitioners became embedding them within existing management systems in their organization – so that they could be considered business as usual.

To develop a comprehensive organizational change leadership program, internal individuals and groups that can influence energy efficiency outcomes, both technically and in terms of financial decisions, need to be identified and engaged in the process. One simple but important tool that practitioners have used to do this is a stakeholder analysis. This involves identifying who the key stakeholders are within the organization and the way that they can influence energy efficiency outcomes. For example, senior management establishes and communicates the business priorities that staff should take notice of and act on. Financial managers make influential decisions on budgets and projects. Operational teams have detailed knowledge of the operation of a building and any persistent problems and areas of potential improvement. Tenants are primarily

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interested in having a comfortable and safe place to work that reflects the goals of their organization.

In researching how organizations adapt to emerging business issues, John Kotter, Professor of Leadership, Emeritus at the Harvard Business School, differentiates between change leadership and change management. He describes change leadership as setting and communicating direction for new initiatives, as well as motivating and aligning the actions of people across an organization. He contrasts this approach with change management which involves planning, budgeting, organizing and staffing. The technical approach to energy efficiency is more closely aligned with change management. Change management and change leadership activities are summarized in Table 3. The actions of successful energy efficiency practitioners are more akin to the change leadership characteristics. For example, adopting a change leadership approach led practitioners to pay more attention to internal stakeholders in their organizations. They had identified that a wide range of individuals and groups would need to be involved in order to build a workplace culture in which energy efficiency was considered a more important priority.

II. Linking Energy Efficiency and Business Strategy to Build Senior Management Support

An important starting point for a change leadership approach is to convince senior management of the benefits of doing energy management differently. This is important since additional resources would be required to conduct more effective energy audits and to set up new systems and processes to support energy efficiency improvement. Also, clear communication from senior management that energy efficiency is important would send a clear message to staff within the organization that energy management is a legitimate and important issue to focus on.

The challenge for many practitioners was to work out how best to inform and engage senior management on the issue of energy efficiency. They found that an important part of the solution was to reframe energy efficiency as an activity that could deliver strategic business benefits rather than just savings on operating costs.

For example, recent research has found that improving the energy efficiency of a building can help to attract and retain tenants. In Australia, this is typically the case with tenancies in A-grade buildings and those buildings that have government tenants. A related benefit is that energy efficiency may also increase property values.

In developing and presenting the business case to senior management, energy efficiency practitioners often found it useful to work with a senior manager that acted as a corporate sponsor. The corporate sponsor helped to shape the development of the presentation and to ensure that the language was appropriately targeted for a senior management audience. Background research that provided evidence of the benefits was found to be an important part of justifying the business case.

Information that is in a senior management presentation typically addresses:

- Projected financial benefits from energy efficiency improvements, if available
- Opportunities to use energy efficiency upgrades to reposition a building
- Describing legal requirements and the potential costs of compliance
- Explaining stakeholder perspectives including:
  - Investor concerns
  - Branding concerns

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Tenant interests
- The availability of new technology
- Competitors – what they are doing and why
- Risks and opportunities associated with corporate reputation
- Current status of buildings and repositioning opportunities

A briefing paper and a presentation can be incorporated into an implementation plan with a statement that outlines the resources required to implement the plan.

After a tell-tale presentation, senior management support and involvement is often incorporated into corporate policies and the establishment of energy efficiency targets. Policies help to clarify the energy management objectives for the organization. They also provide a statement that can be easily communicated throughout an organization to demonstrate senior management support. By articulating how energy management aligns with the organization’s other business improvement goals, effective energy efficiency or related policies can help managers and staff more easily understand the relevance of the issue and the need for action. In some cases, policies outline the organizational benefits, including cost savings and wider, environmental and reputational outcomes.

Energy targets support a policy by building in a measurable level of accountability. The introduction of portfolio-wide targets based on energy building rating outcomes such as the National Australian Built Environment Rating System (NABERS), an annual measure of operational energy use similar to Energy Star in the United States, has been an effective tool in driving continuous energy efficiency improvement each year in organizations that set targets.

Box 2 provides a short case example of The GPT Group. Their achievements and the way they link their energy efficiency program with other business criteria highlight the wider business benefits beyond cost savings.

**Box 2: Australian REIT – Real Estate Investment Trust Case Study - The GPT Group**

The GPT Group, formerly known as General Property Trust, is one of Australia’s largest diversified listed property groups with a AUD$14.8 billion of assets under management. Property assets include Australian retail and office buildings and industrial/business parks. Since 2005, energy intensity targets have been set for GPT’s overall property portfolio and for individual buildings. These targets filter down to individual managers and are linked to remuneration schemes including annual bonus payments. Between 2005 and 2012, GPT reduced the energy used per square meter of space by 31%.

Energy efficiency business case proposals need to consider the impact of the project on a range of measures including:

- **Performance**
  - Tenant comfort
  - Reliability – ongoing maintenance costs and potential disruption to tenants
  - Reputation – of the building and the GPT Group, in relation to meeting publicly stated targets and policies
  - Competitiveness/occupancy – attractiveness to current and future tenants from a leasing perspective
  - Safety
- **Financial**
  - Value – of the asset
  - Income – potential to increase rental income
  - Outgoings – tenant expenses that are not covered under the lease
- **Capital Expenditure**
  - Government incentives – potential government funding
- **Environment**
  - NABERS energy rating
  - Greenhouse gas emissions
  - Resource efficiency

### III. Adopting a Progressive Approach to Energy Data and Analysis

Accurate, reliable and accessible energy data is essential to support energy efficiency improvement. Good data allows for improvement options to be identified, evaluated and verified. It also supports building and portfolio level benchmarking and can be used to establish key performance indicators for building operation teams and individual managers.

Traditionally, firms would undertake energy audits using whatever energy data was available at the time. The limitations of the available data would be acknowledged in the audit report, and recommendations would be included for the ways in which energy metering and monitoring systems could be improved. Typically, however, there would be very little follow up on the recommendations to improve energy data, because investments in energy data...
data and information systems were difficult to justify without clearly quantifiable outcomes. This created a negative feedback loop in which subsequent energy audit reports would note the same data limitations and lead, once again, to poor quality energy audits.

A related issue was the difficulty associated with comparing the energy performance of different buildings. For example, office buildings in different climatic zones can have very different heating and cooling requirements and the size, use and operating hours can be quite different from one office building to another. These differences made comparison of energy performance within a portfolio and across different building owners difficult. The development of NABERS – Energy, has allowed for the energy performance of buildings to be compared easily and effectively. The NABERS rating tool was first developed in 1999 by the NSW State Government. The involvement of building owners, tenants, technical consultants and governments has helped to develop the credibility of the rating system and build confidence in the ratings system over time.

In 2010, it became mandatory to use the rating when commercial office space of 2000 square meters or more is offered for sale or lease. The rating tool is similar to the Energy Star building certification that is available in the United States. It is performance based – meaning that the rating is calculated on the basis of actual energy performance over a 12 month period. The tool allows for the normalization of energy performance through consideration of building area, climate, hours of occupancy and equipment density. Ratings can be undertaken on a whole building, base building or tenancy which provides important flexibility. The outcomes are reported on a scale of one to six stars with 2.5-3 stars considered to be average energy performance.

The NABERS energy rating tool has provided building owners and tenants with an opportunity to compare the energy performance of buildings in a way that is non-technical and easily communicated. In 2006 the Energy Efficiency in Government Operations policy established a requirement that all government leases undertaken for longer than 2 years need to be in buildings that can demonstrate a NABERS energy rating of at least 4.5 stars. The standard was also applied to new office buildings and major refurbishments. This requirement, together with a growing number of businesses that were also using the rating systems as a way of comparing building performance, has created an important commercial driver for improved energy performance.

The development of the NABERS energy rating system also helped building owners to establish portfolio wide energy performance targets. The advantage of adopting a portfolio wide target is that it provides greater flexibility in considering the most appropriate buildings in which energy efficiency investments should be made. For example, energy efficiency investments can be matched to the business and equipment life-cycle of buildings. Practitioners have found that it is much easier to justify equipment replacement when such equipment is due to be replaced. They have been able to argue that any marginal increase in capital cost associated with energy efficiency can not only deliver operational cost savings but also ‘future-proof’ the building against rising energy costs and increasing tenant demands for ‘green and efficient’ office space. Similarly, business case proposals for energy efficiency investments may be more successful when presented at the time in which an existing lease is being negotiated with energy efficiency improvement presented as a value add. Another opportunity for energy efficiency investment is when a large tenant vacates a building. Practitioners can argue that an energy efficiency upgrade to the building can enhance the ability to attract future tenants. In some cases energy efficiency upgrades can play a key role in repositioning a building in terms of both quality and reduced outgoings for tenants.

The widespread use and publication of portfolio-wide energy targets using energy ratings has also helped practitioners to more easily explain the energy performance of a portfolio to internal and external stakeholders. In recent years CEOs of large REITs have received questions from investors about progress towards energy efficiency targets. One of the reasons for this is that investors have become increasingly aware of and concerned about the ability for building owners to attract and retain tenants. Benchmarking across a portfolio has also made it easier for energy practitioners to engage with financial staff such as Asset Managers since they can easily show the performance of one building compared to another and present energy efficiency improvement options in terms of the increased rating that a building is likely to achieve once such investments are undertaken. In essence, the NABERS energy rating has helped to create a common
language for building energy performance that is accessible to owners, tenants and investors.

The most successful firms have found that it takes some time to improve energy information systems. One approach is to work within the limits of available energy data and then to use initial results in improvement to justify further investment in the development of more comprehensive systems. This involves working carefully to analyze high level data such as monthly electricity and gas billing data. Although it is high level data, it allows for buildings to be benchmarked against each other and for comparisons to be made across a portfolio. Combined with physical inspection, low cost operational improvements can typically be identified and implemented in assets that have not had a strong focus on energy efficiency previously.

Once first tier improvements have been made, the next step has typically been to work more closely with the information available from a Building Management System (BMS). BMS data can be used to identify low cost, “tuning” options. For example, control-related opportunities and failures may be identified. Making comparisons with known measures implemented at other sites can also be used to identify improvement options. Even in relatively new buildings, this investigation and “re-tuning” of a building can yield significant savings.

The results from the previous level of analysis could then be used to justify investment in more sophisticated energy information systems. This includes the installation of submeters and more refined tracking and analysis of energy use by employing the appropriate software to make it easier to identify anomalies and to undertake corrective actions on a more consistent basis. This “progressive approach” is summarized in Figure 1.

The progressive approach has, in some cases, taken a number of years to implement. It contrasts the previous practice of undertaking periodic energy audits with very limited improvements being made between each audit. Currently, firms are increasingly integrating automation into their systems and setting thresholds which lead to automated alerts. Despite these advances in technology, however, comprehensive systems require trained and skilled operators to use them, as described in the next section.

IV. Integrating Energy Efficiency Into Daily Operations

The traditional approach to energy management has been for energy audits to be conducted on a semi-regular basis in order to identify and evaluate energy efficiency projects. The leading firms found that energy audits are an important way of identifying large capital projects to improve energy efficiency. However, once these projects were implemented, the rate of improvement began to level off. This led them to focus on how they could integrate energy efficiency more effectively into the daily practices of their building management teams.

Adapted from Figure 1, p 10 in Crittenden, P. & Lewis, H. 2011, “Preparing for the Second Assessment Cycle - Lessons Learnt at the 2011 Energy Efficiency Opportunities” workshops, Australian Government Department of Resources, Energy and Tourism, Canberra, ACT.

An important part of this process was to ensure that the teams had easy access to energy data – including time-of-use interval data that allowed them to quickly and easily see when energy use deviated from expected performance. However, even when this data was available via energy submeters, it was often unclear what equipment the submeters were measuring. The operations teams were busy running their building which meant that they were hesitant to add any additional tasks, such as energy management, to their day to day management of the buildings.

In order to identify a solution to these challenges, funding was provided by the New South Wales State Government for The GPT Group, Jones Lang LaSalle and the management consultancy, Sustainable Business, to develop and pilot a new approach to energy efficiency training. The project involved bringing together the building operations teams from each of six buildings to review energy data and identify improvement opportunities over the course of four 2-hour workshops. The workshops were spaced two weeks apart to provide the teams with an opportunity to improve meter maps, conduct night audits and refine business case proposals. New procedures that were developed during the project were implemented and many of these were followed on a daily basis. This training approach has subsequently been applied to buildings within the office portfolio of Government Property NSW, in a number of retail shopping malls owned by the Stockland Property Group and in the tenancies of the Westpac Banking Group.

The approach adopted within the training provides some insight into the changes in energy management practices that practitioners aim to achieve by broadening the involvement of key personnel in the process of continuous energy efficiency improvement. The first workshop revolves around understanding the equipment that is used in each building. It is particularly beneficial to have the mechanical, electrical and controls contractors involved in the workshop together with the facility manager. Participants have found that it provides an opportunity to ‘step back’ from day to day operation of the building and it helps them to understand the different factors that can influence energy use. In the training there is a particular focus on the role of the facility manager, tenants and each of the subcontractors in progressing energy efficiency. The workshop also introduces the energy submetering system and the data that that can be used to evaluate energy performance. Participants are asked to consider what performance data is relevant to their role and how they can collaborate to review and act on energy efficiency improvement options.

At the second workshop load profile data is presented at different levels – from the building as a whole to specific equipment such as chillers, lifts and light and power in different zones of the building. This allows for improvement options to be identified. One reason that the training has been successful is that the full operations team have an opportunity to discuss improvement options together. This means that they can share their different perspectives and experience to challenge unfounded assumptions and to create shared solutions that can be accessed quickly (even before the second workshop) with the results available to demonstrate the value of the training.
In the lead up to and during the third workshop energy efficiency improvement options are further scoped. Capital plans are reviewed to identify the most appropriate timing for improvements and initial costings are put together. At a final workshop a presentation is made to a senior manager that can influence financial decisions about the building. Although some capital improvement options are typically presented, the main focus is on the range of building controls and operational improvements that have been made and will continue to be made through the efforts of the building operations team. The final workshop and presentation provides an important opportunity to update senior management on the progress that has been made on energy efficiency and future plans.

This training approach has led to the ongoing review of energy data on a daily basis in each of the buildings that were involved in the training. Daily adjustments of plant and equipment procedures in order to improve efficiency have been made, and, in some of the buildings, more significant projects implemented. These initiatives included improving the control of lighting in stairwells, re-commissioning carbon dioxide sensors in car parks in order to vary fan speed to meet ventilation needs and rescheduling security “walk-throughs” to ensure lights are switched off overnight.

By the end of the training, participants have developed a better understanding of energy use in their buildings and the action they can take to improve energy efficiency. They have implemented new procedures to assure that energy data was reviewed on a more regular basis. The training was also shown to improve communication and teamwork amongst the operations management teams, and the projects that were implemented contributed towards each organization’s energy efficiency improvement targets.\(^\text{18}\)

This approach is just one way of developing the skills and motivation of building management teams to approach energy efficiency as a continuous improvement activity. Complementary approaches include consulting with management teams during energy audits, integrating energy efficiency obligations into role descriptions, and developing specific key performance indicators that team members can be measured against. The training highlighted very clearly the importance of involving the building management teams in the challenge of improving energy efficiency.

<table>
<thead>
<tr>
<th>Table 4: Six Key Strategies(^\text{20})</th>
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<tbody>
<tr>
<td><strong>Strategy</strong></td>
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<tr>
<td>1. Link your project to current business priorities.</td>
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<tr>
<td>2. Involve the right people in developing the business case proposal.</td>
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<tr>
<td>3. Communicate with decision-makers early and regularly.</td>
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<tr>
<td>4. Identify project risks and develop strategies to manage them.</td>
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<tr>
<td>5. Describe and quantify all business costs and benefits.</td>
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<td>6. Consider a range of funding options.</td>
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This informed the development of a research and capacity building project called “The Business Case and Beyond” which examined the question: What do effective practitioners do to improve the likelihood that business case proposals for energy efficiency projects will be successful?

A key finding from this research project was that rigorous financial evaluation of energy efficiency projects is essential but not necessarily sufficient to support investment in energy efficiency projects. Successful business projects typically involved the final decision-makers in the process well before a final proposal was presented. Other important strategies included linking a project with current business priorities, involving a range of people throughout the process, identifying and showing how project risks would be managed and presenting a range of funding options. The
rationale behind each of these strategies is summarized in Table 4.

The findings from this research further confirm the importance of adopting a change leadership approach to energy efficiency. That is, by identifying and engaging a range of internal stakeholders throughout the process of identifying and evaluating opportunities, those people become more aware of the relevance of energy efficiency to them and are more likely to provide the time and effort required to progress them.

The first strategy, link your project to current business priorities, highlighted that practitioners were often frustrated by energy audit processes that identified a list of opportunities - with a strong focus on quantifying energy savings - but often with limited effort to describe how the projects might address current business challenges or priorities. It was noted that business case proposals were more likely to be successful where a project would help meet existing business planning goals and targets, solve an existing business problem or enhance core business practices. For building services firms for example, being proactive on energy efficiency initiatives has helped them to demonstrate that their companies are innovative and focused on creating value for their clients. The key to this strategy is that the energy efficiency benefits are not considered in isolation – rather, each project is placed within a wider business context that is likely to be more appealing to decision-makers where a direct link to an existing business priority can be demonstrated.

The second strategy, involve the right people in developing a business case proposal, demonstrated the importance of involving a range of relevant stakeholders throughout the process of developing a business case proposal rather than relying simply on the calculations of an external consultant. As well as key internal staff, the involvement of external stakeholders was considered an important strategy to obtain resources in many projects. For example, involving tenants could help develop buy-in and support for projects and in some cases this was essential for building upgrades in which both tenants and building owners needed to commit to such improvements.

The third strategy emphasised that successful decisions were often those that were made well before the presentation of a formal business case proposal. Involving decision-makers early in the project was considered an important opportunity to test ideas, inform decision-makers about the project and identify potential issues and concerns from the perspective of the key decision-makers. Decision-makers may include people who make the final decisions but also other staff or external consultants that a manager might look to in order to build their confidence in a final decision. Interviewees suggested that identifying the right people sometimes takes time.

Some companies use regular meetings – for example, quarterly meetings with asset managers – to communicate with decision-makers. Other companies, have put in place cross-functional teams to specifically review the progress of energy efficiency business case proposals on a regular basis. This process is effective because the projects are brought to the attention of senior staff; the diversity of the review groups helps to identify and refine energy efficiency co-benefits and overcomes organizational silos; and the early input of senior staff helps to target the development of the business case proposal well before it is presented for a decision.

In presenting a business case proposal another critical factor described by those that were interviewed was the importance of adopting a risk-based perspective (the fourth strategy). This involves carefully considering all potential risks that could be associated with a project and developing strategies to address them. Different types of risk include financial, strategic, operational and safety risk. This saves time and increases success since it can reduce the
VI. Developing Collaborative Relationships Between Owners and Tenants

A final area in which energy management practices have been changing relates to the development of more collaborative relationships between building owners and tenants. This situation is often presented to be a split incentive, since investment by a property owner will accrue to a tenant rather than back to the owner who made the investment in the first place.

What the notion of the split incentive does not account for is the proactive efforts of influential energy efficiency practitioners. One example is the building upgrade that was undertaken at 500 Bourke Street, a 40 story Grade A office building in the central business district of Melbourne, Australia. Background about the tenant, the National Australia Bank, and a description of the upgrade project is provided in Box 3.

Box 3: National Australia Bank Case Study

The National Australia Bank Limited group (NAB) is a financial services organization with over 28,000 full time equivalent employees operating in around 1,000 locations in Australia. In addition to their Australian operations, NAB operates financial services businesses in New Zealand, Asia, the United Kingdom and the United States.

NAB primarily leases their properties rather than owns them. In Australia, two data centers account for around 32% of the bank’s total energy use with most of the remainder used in commercial offices and branches (57%) and for transport (11%).

NAB has a comprehensive energy efficiency program. There are a number of reasons why NAB has instituted this program. First, they aim to provide NAB employees with information about the challenges and opportunities associated with energy efficiency investments in order to support the development of future commercial opportunities that involve financing low carbon growth and providing specialist environmental products and services. Second, in-house research suggests that energy efficiency and other environmental initiatives have had a positive impact on employee attraction, engagement and retention. Finally, energy efficiency has reduced operating costs.²¹

NAB had been the major tenant in 500 Bourke Street, Melbourne, since it was built in 1978. When the lease came up for review, NAB had to consider the impact of the building on their greenhouse gas reduction target. Simultaneously, the owner, the Industry Superannuation Property Trust (ISPT), was considering a complete building upgrade. NAB and ISPT were able to negotiate an approach that created benefits for both parties. NAB offered to co-invest with the building owner for certain modifications to the base building and agreed to sign a long-term lease. ISPT agreed to make building improvements that would yield significant performance outcomes, including:

• A reduction in the building’s electricity use of over 50%.
• A reduction in natural gas use of over 80%.
• A reduction in water use of over 50%.²²

The project highlights that, through negotiation, the owner and tenant were able to identify shared benefits from a building upgrade that has improved the productivity of the office space and significantly reduced operational energy use and environmental impact.

The establishment and facilitation of Building Management Committees presents an area of future opportunity. Historically, owner and tenant relationships have not always been

highly collaborative and in some cases, actions to improve energy efficiency can be seen by either party as somewhat one-sided. However, through initiatives such as the Energy Efficiency in Government Operations program, there is growing use of such committees. The shared goal is to maintain and/or improve the commitment of the tenant and the owner to a minimum 4.5 star NABERS energy rating. Committees are required to meet quarterly and an important part of their work is to review progress against an energy management plan which is also a requirement of the Efficiency in Government Operations program. The committee also provides an important point of contact for review of any proposed changes to the building associated with the tenant fit-out of the office space. Traditionally there has been a mis-match between the delivery of energy services such as heating and cooling and the design of the fit-out. The green lease process and use of building energy committees presents a unique opportunity to further build on the positive examples of owner/tenant collaboration that are becoming more widespread. It is expected that in many cases there are additional benefits for both the owners and tenants involved as they come to develop a better understanding of each party’s need – including beyond energy efficiency – which can create shared benefits for all involved.

In the area of owner/tenant collaboration it has often been the change leadership approach adopted by energy efficiency practitioners and their firms that allow for shared outcomes and constructive solutions to be developed. The challenge of creating shared incentives for owners and tenants can deliver energy efficiency improvements, as well as other environmental and business benefits.

Conclusion

This white paper has described a number of key practices that Australian real estate firms and tenants have applied in order to accelerate the uptake of energy efficiency in their office buildings. These approaches have developed over the past few years in response to a number of business drivers, including new legislation and changing expectations from organizational stakeholders. The aim of the paper has been to share these “lessons learned” with NYC real estate firms and tenants as they work to meet the requirements of the Greener, Greater Buildings Plan. Firms and tenants both nationally and globally may benefit, as well.

About Sustainable Business Pty Ltd.: Over the past decade, the firm’s associates have worked on energy efficiency projects that span training, capacity building, organizational change and energy efficiency policy development. The corporation’s focus employs both an “inside out” perspective to ask how firms impact on the climate and what they can do about it and “an outside in” perspective to explore how climate change impacts on firms and what firms can do to minimize the impacts. This approach when dealing with the relationship between climate change and firms is based on Michael Porter and Mark Kramer’s article, Strategy and Society, which was published in the Harvard Business Review, December 2006.

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