

UNEP FI Investor Briefing

A publication of the **UNEP FI Property Working Group**

Commercial Real Estate



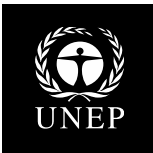
**Unlocking the energy efficiency
retrofit investment opportunity**



A COMPELLING ARGUMENT

“ Buildings account for approximately a third of the world’s energy consumption and global greenhouse gas emissions, and are a high-impact sector for urgent mitigation action on climate change. With the financier sector’s deep-rooted involvement in the building market, they are in a position to show that this problem can be addressed profitably.

Charles Anderson
UNEP Finance Initiative Director

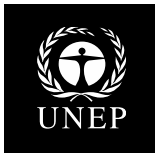


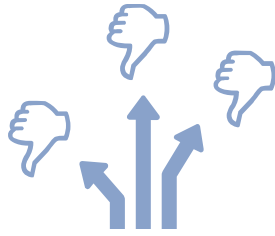


RECOGNIZING THE CHALLENGES

Issues range from unique building characteristics and complex retrofit markets, to different regulatory requirements, market perceptions and underdeveloped industry standards.

- Split incentives
- Lack of information
- Market fragmentation
- Underwriting
- Deal size
- Short holding period

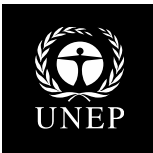




THREE ROOT CAUSES OF INACTION

There are a number of obstacles that have been identified in blocking building retrofits

- **Failure to provide a compelling business case** for investment in retrofit with metrics and valuations.
- **Uncertainty on how to trigger** the energy efficiency retrofit investment decision.
- **No designated role within an organisation** with the responsibility and authority to identify, plan and deliver energy saving and carbon reduction interventions.





SIGNIFICANT LONG-TERM RESULTS

Energy efficiency measures can pay back quickly, depreciate slowly and deliver returns for decades:

30%

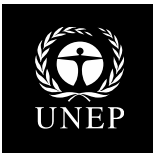
improvement in building efficiency has 28.6% 10-year IRR - US

30%

energy savings opportunity from buildings 1930s-1990s - France¹

17%

energy savings from a sample of post-retrofit buildings – Singapore²





HIGHER RENTS, HIGHER SALES PRICES

A correlation exists between more energy-efficient buildings, higher rents and higher sales prices:

9%

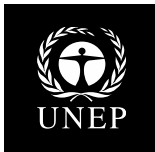
sales premium for Buildings with top NABERS ratings – Australia¹

4.8%

higher rents for Energy Star vs comparable non-Energy Star - US²

8%

positive impact on sales prices for BREEAM rated office buildings – UK³

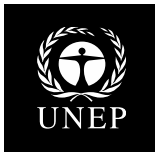




SEVEN STEPS TO SUCCESS

A seven-step approach can effectively increase the the supply of financeable energy retrofit projects.

1. Ensure executive awareness of the business case
2. Measure and benchmark building energy performance
3. Set portfolio energy efficiency targets
4. Link asset manager compensation to energy performance
5. Align lease clauses to enable retrofits (green leases)
6. Include impact on asset value in investment analysis
7. Take a portfolio approach to determine next steps



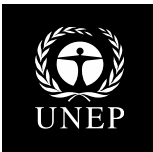


1. ENSURE EXECUTIVE AWARENESS

It is imperative that the company's executives are aware of an initiative and see its value. Present evidence and work through any objections executives to gain executive support.

“ In the absence of the perfect business case, progress on energy efficiency is seen to be, at minimum, a strong defensive position. ”

David Antonelli
EVP Portfolio Management, Bentall Kennedy



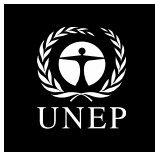


2. MEASURE AND BENCHMARK

You can't manage what you don't measure

Sustainability benchmarking enables investment managers to present data that is easily understood by other market players, showing the strength of the actions implemented in the portfolio.

- Benchmarking is essential to quantifying the opportunity.
- Selecting a smaller set of metrics is a good starting point to gradually add complexity.
- Real estate owners and managers who want to create value do not wait for mandatory disclosure or industry benchmarks; they innovate and drive markets forward with data and collaboration.





3. SET PORTFOLIO TARGETS FOR CLARITY

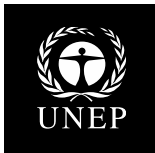
Declare a reasonable but ambitious target for reducing energy intensity across the portfolio. This echoes throughout the entire real estate ecosystem.

50%

Organizations with building energy efficiency goals implemented 50% more energy efficiency measures than organizations without goals.*

22.8%

In 2004, the CalPERS Investment Committee set a goal of reducing energy consumption in its Core Real Estate portfolio by 20% by 2009. By the end of this program, CalPERS investment managers had exceeded this target, reporting a total energy reduction of 22.8%.





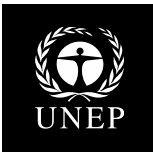
4. LINK COMPENSATION TO PERFORMANCE

Pay remains a powerful motivator. Aligning some of an asset manager's executive compensation package with resource efficiency makes good sense.

- Base targets on solid data, ambitious yet reasonable.
- Set meaningful incentives.
- Tie incentives to long-term targets with short-term milestones.
- Include qualitative targets.

25%

Sustainability-link short-term incentive compensation as a percentage of total short-term incentive compensation for fiscal year 2012



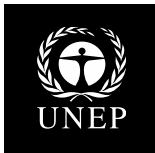


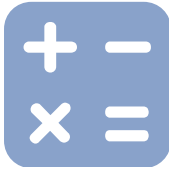
5. ALIGN LEASE CLAUSES TO ENABLE RETROFITS

Split incentives make energy efficiency retrofits hard or impossible to accomplish. Avoid such challenges by including key ‘green lease’ clauses when a lease comes up for renewal.

Colonial First State Property made a Green Lease program work thanks to:

- the legal commitments demonstrated by the landlord,
- the Building Efficiency Management Plan, which is the implementation mechanism for the landlord and the tenant to administer the Green Lease Schedule,
- regular meetings to implement and ascertain the outcomes,
- a deal will not be declined if the tenant is not keen to get involved.



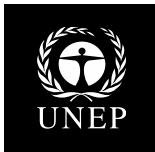


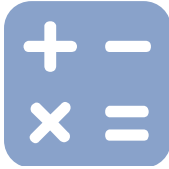
6. INCLUDE IMPACTS ON ASSET VALUES

Energy Efficiency investments enable buildings to command higher rent by increasing the overall value of the building asset.

- Space will likely be leased more quickly
- Operating costs will be lower
- Investment + insurance costs may be lower

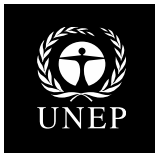
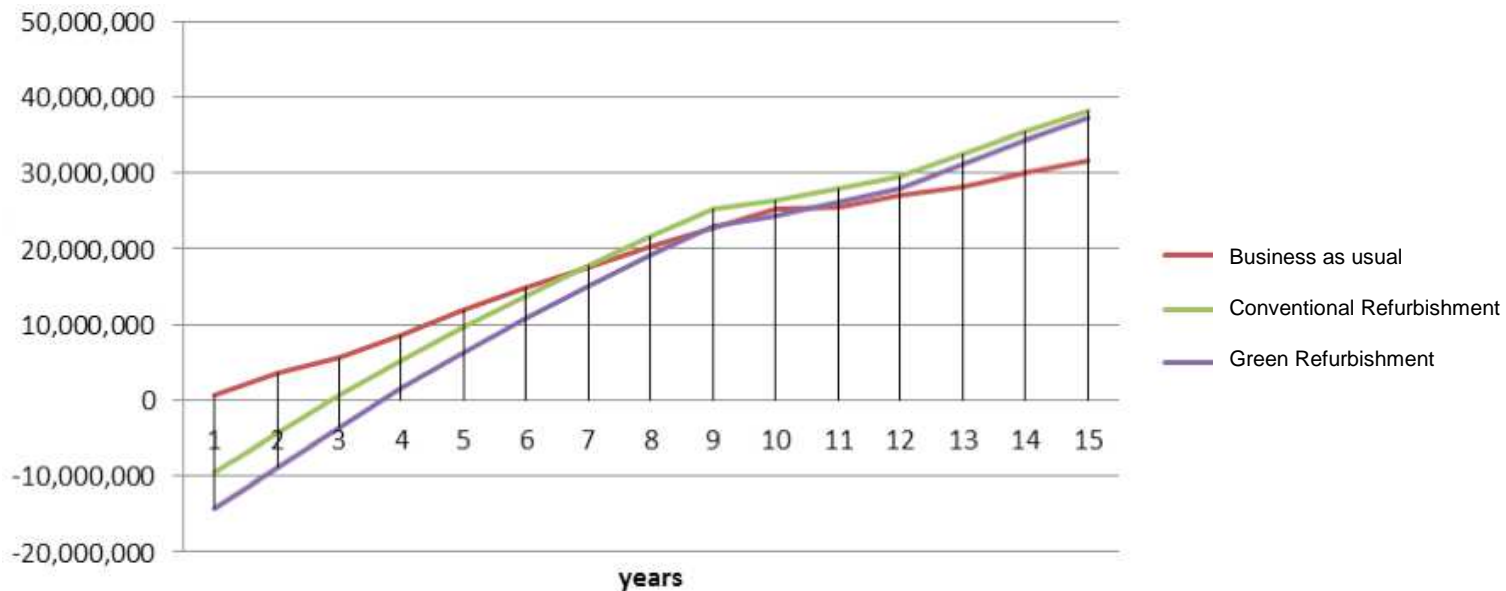
	BUSINESS AS USUAL	CONVENTIONAL REFURBISHMENT	GREEN REFURBISHMENT	
Investment (€)	0	13 000 000	18 300 000	
Annual rental growth rate (%)	1.50	1.60	1.70	↗
Discount rate (%)	7.75	6.80	6.70	↗
Vacancy period between leases (months)	12	10	9	↘
Maintenance and operation costs (including vacancy) (€)	124 257	91 855	76 310	↘
Discounted cash flow (DCF) calculation (accounting for investment costs) (€)	52 748 917	82 191 774	88 243 576	↗
Asset value (€)	52 748 917	89 926 650	100 377 224	↗

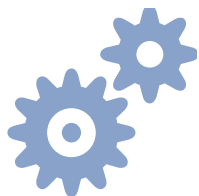




6. INCLUDE IMPACTS ON ASSET VALUES

15-year cashflow for three scenarios of buildings owned by Caisse des Dépôts et Consignations





7. TAKE A PORTFOLIO APPROACH

Taking a portfolio approach will maximize returns on effort and cost.

4 key variables

- Type of lease
- Lease duration
- Availability of capital
- Whether you are the tenant, manager or owner

16 scenarios

Dark Blue	Dark Blue	Medium Blue	Light Blue
Dark Blue	Dark Blue	Medium Blue	Light Blue
Medium Blue	Medium Blue	Medium Blue	Light Blue
Light Blue	Light Blue	Light Blue	Light Blue

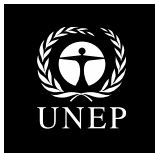
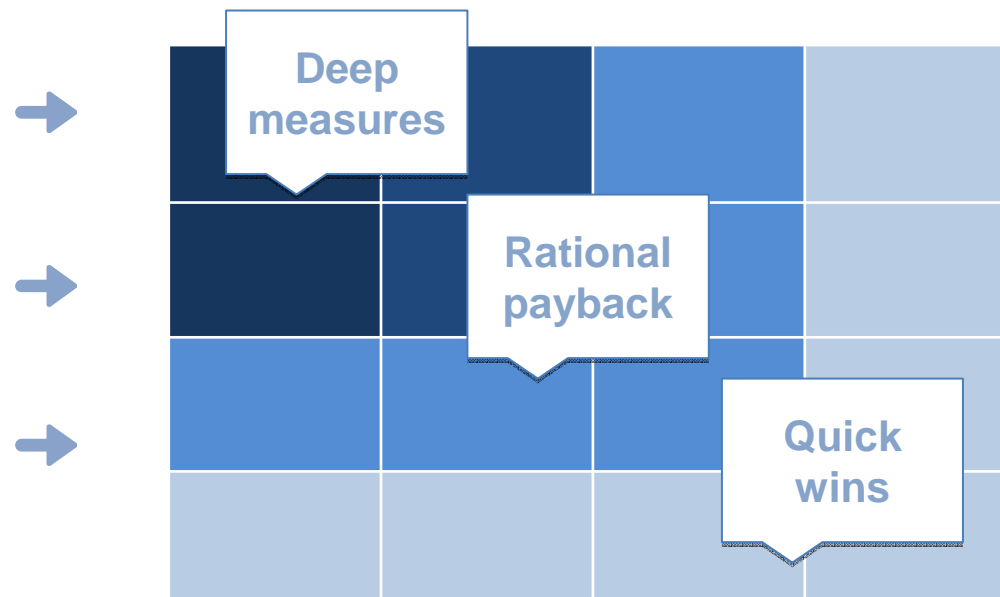




UNLOCK ENERGY EFFICIENCY INVESTMENT OPPORTUNITIES

Wherever a building or tenant sits in the previous table, there is something they can do to profit from an energy efficiency project or set themselves up for a deep energy retrofit.

3 levels of projects

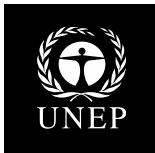




CONCLUSION

Energy efficiency retrofits have shown attractive returns on investment, even for short-term investors.

- Generate direct cost savings
- Show positive impacts on the overall value of buildings
- Real estate owners and investors can create wealth within their portfolios
- Owners can capture the financial benefit themselves
- Owners can demonstrate energy efficiency retrofits to the financial markets



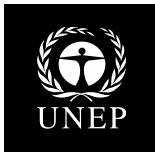
THE MANDATE OF THE UNEP FI PWG

UNEP FI is a global partnership between UNEP and the financial sector

Over 200 institutions, including banks, insurers and fund managers, work with UNEP to understand the impacts of environmental and social considerations on financial performance. The Property Working Group (PWG) analyses the role of financial institutions in promoting sustainable development in the real estate and property finance sectors.

Members include:

- Actis
- Allianz Real Estate (Allianz SE)
- Aviva Investors (Aviva plc)
- Axa Real Estate Managers (Axa – Group Management Services)
- Bentall Kennedy
- BNP Paribas Real Estate Investment Services (BNP Paribas Fortis)
- British Columbia Investment Management Corporation (bcIMC)
- Caisse des Dépôts et Consignations
- CalPERS
- Colonial First State Global Asset Management (Commonwealth Bank of Australia)
- Deutsche Bank
- F&C REIT Asset Management
- Hermes Real Estate
- Hesse Newman Capital AG
- Infrastructure Leasing & Financial Services
- Investa Property Group
- Lend Lease
- The Link REIT
- M&G Real Estate
- Mitsubishi UFJ Trust & Banking Corporation
- Portigon
- RobecoSAM
- The Sumitomo Trust & Banking Co., Ltd.
- Sustainable Development Capital LLP
- Thomas Lloyd
- UBS Global Real Estate (UBS AG)



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