Prepared by the Building Owners and Managers Association of BC

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PROFILE OF THE COMMERCIAL REAL ESTATE INDUSTRY WITHIN MAJOR BC MARKETS





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INTRODUCTION

Commercial real estate is a significant contributor to GHG emissions. Adopting and implementing energy management and carbon reduction strategies benefits a multitude of stakeholders, in addition to the general public.

Over the past decade, in particular, the commercial real estate industry has made significant strides in energy management. Often supported by sponsors like the Province, BC Hydro, Fortis BC, Natural Resources Canada, and others, commercial real estate landlords have invested substantially in building efficiency upgrades and retrofitting of their aging, inefficient mechanical and electrical systems, and performance management programs.

Reaching net zero or significant carbon reduction goals requires staying ahead of the commercial real estate market's needs but also recognizing where they're at.

Accordingly, the goals of this report are to:

- 1) Summarize the various asset classes of commercial real estate and their market share within major BC markets, to gain an understanding of the physical landscape of buildings across the Province.
- 2) Describe the commercial real estate lease and how it addresses, or fails to address, energy management and carbon reduction, and responsibilities of the parties involved in the contractual agreement
- 3) Profile key stakeholders involved in the commercial real estate transaction and ensuing occupancy relationship to gain a better understanding of:
 - a. their attitudes and level of knowledge with respect to energy management, carbon reduction and retrofit opportunities.
 - b. their level of influence in the decision-making process with respect to energy management, carbon reduction and retrofit opportunities.
 - c. key drivers influencing their decision-making process and conversely barriers affecting their engagement in energy management, carbon reduction and retrofit opportunities.

Disclaimer: Statistics presented within this report were obtained directly from professional researchers within commercial real estate and/or their published reports and were accurate as of December 31, 2022. Markets change rapidly, therefore BOMA BC makes no further representation to the accuracy of this data after this date, nor should any business decisions be made upon its basis without consulting market/industry professionals.



EXECUTIVE SUMMARY

Commercial Real Estate (CRE) is classified according to three, primary asset categories: office, retail and industrial. Vancouver is, of course, the largest office market in British Columbia but is generally not considered a head-office city (with exceptions, of course) amongst commercial real estate professionals. It is mostly comprised of satellite offices; hence Vancouver office tenants are quite small relative to other Canadian cities, averaging just +/- 8,000 square feet.

Within major BC markets, industrial properties account for approximately 61% of the commercial real estate landscape, retail = approximately 9%, and office = approximately 30% (statistically per square foot).

A significant proportion of commercial real estate in Canada is institutionally owned. Institutional ownership is largely Real Estate Investment Trusts (REITs) and pension funds. Institutional owners are typically more progressive than non-institutional owners, when it comes to investments in energy management and carbon reduction at their properties, as they are driven by CSR accountability and board governance. That said, several boutique CRE firms are emerging in BC with a strong sustainability focus aligned to their brand.

The lease is the contractual agreement that defines the landlord/tenant relationship. In addition to detailing fees and length of the agreement, the lease also describes the building rules, regulations, and service offerings the landlord will provide. The landlord is under no obligation to provide the tenant with anything outside of the lease and the tenant must abide by all terms and conditions of the lease. Knowing this, savvy tenants will contract brokers to negotiate on their behalf and to bring awareness of various long-term needs they might require when considering the lease of a new space.

Consultants, contractors, and designers are a fourth stakeholder group influencing CRE. Landlords are highly dependent upon consultants and contractors in the design and implementation of building energy management projects. Consultants tend to service more sophisticated property owners/managers, whereas less sophisticated properties tend to rely more upon their existing contractors for provision of replacement options, often opting for 'like for like' or budget solutions. Designers are a key influencer of office and retail tenants in the design and implementation of energy-related options for their space, whereas industrial tenants tend to work more closely with consultants and contractors on designs suited to their specialized industrial spaces. While many tenants are becoming more astute about energy management and decarbonization, few will factor it heavily into their decision-making process, and most are still very reliant upon landlords and contractors to direct them with respect to requirements and opportunities.

Aside from the owner, key members of the landlord's team include: the Asset Manager, the Property Manager, and the Building Operator. There are varying organizational charts, unique to



each property management company but these three roles are common and typically have the most knowledge and influence in the decision-making process where energy management is concerned.

RESEARCH METHODOLOGY

BOMA BC contracted TurnLeaf Consulting Inc., a Vancouver-based sustainability consulting firm, for research and development of this report in response to general and specific queries received from regulators and policymakers intending to develop programs of decarbonization targeting the commercial real estate industry.

The research methodology for preparation of this report entailed a review of relevant research reports, commercial real estate industry publications, and publicly available external reports of large commercial real estate companies.

Fortunately, the commercial real estate industry has a number of dedicated research professionals who regularly publish industry assessments and market reports. These professionals typically work for industry associations or brokerage firms and their reports are easily accessible to interested parties. Their permission was granted, and is noted as such, for the publication of their market statistical data.

In addition, the researcher interviewed several professionals and sample representatives from the key stakeholder groups for their experience and opinions related to the subject matter.

As the title suggests, this report focuses on major commercial real estate markets within BC. While the structure of the lease and many of the stakeholder roles are likely similar throughout the Province of BC, there will certainly be variations to the landlord/tenant relationship, responsibilities and expectations, as well as tenants' spatial priorities outside of BC's major markets and within more remote parts of the Province.

COMMERCIAL BUILDING ASSET CLASSES

Commercial real estate is typically classified into three categories: office, retail and industrial. Some might include multi-unit residential buildings (MURBs), but amongst British Columbia's commercial real estate professionals this category is classified as residential, given the landlord/tenant relationship is dramatically different in the multi-unit residential scenario



compared to the three, previously mentioned asset classes. Accordingly, only office, retail and industrial assets are profiled within this report.

OFFICE BUILDINGS

Within the commercial office category, buildings are generally classified according to size and value. While size is an easily defined quantitative measure, value is a less easily defined qualitative measure. Value, of course, is also market driven but market aside, commercial office buildings are typically classified as either A class, B class or C class.

The determination of a property as either A, B, or C class is based primarily upon the average rent, the building location, the building systems, finishes and services. While these classifications will vary somewhat from market to market based upon the size of that market and the existing comparables within that market, the National Association of Industrial and Office Properties (NAIOP) Research Foundation has developed a guideline for categorization of buildings within these classes. Their guideline and its definitions are generally accepted by local industry professionals as appropriate to the major BC office markets.

OFFICE BUILDINGS SIZE CLASSIFICATIONS

Low-rise	Fewer than 7 stories (above ground)
Mid-rise	7-25 stories (above ground)
High-rise	25+ stories (above ground)

GUIDELINES FOR THE DETERMINATION OF OFFICE PROPERTIES' VALUE CLASSIFICATION

	Class A	Class B	Class C
Rents	Asking gross rents are based on a specified range between the top 30-40 percent of the office rents in the marketplace	Asking gross rents are based on a specified range between the Asking Gross Rents for Class A and Class C space	Asking gross rents are based on a specified range between the bottom 10-20 percent of the office rents marketplace
Location	Excellent, well located, transit-oriented, lot of retail and restaurants in immediate proximity	Average to good location	Less desirable location, depending chiefly on lower gross rent to attract tenants
Building Systems	The mechanical, elevator, HVAC and utility systems have capacities to deliver services that meet both	The mechanical, elevator, HVAC and utility systems have adequate capacities to deliver services	The mechanical, elevator, HVAC and utility systems have capacities that may



	Class A	Class B	Class C
	current tenant requirements and anticipated future tenant needs	currently required by tenants	not meet current tenant needs
Building Finishes	High quality design and materials; buildings must continue to remain competitive with new construction	Average to good quality design and materials	Dated appearance and/or poor to average quality finishings
Tenant Finishes	Efficient layouts, best quality trim and interior finishes	Good to fair quality trim and interior finishes	Functional, no frills tenant improvements
Building Services	Above average maintenance, management and upkeep	Average to good maintenance, management and upkeep	Below average maintenance, management and upkeep
Building Amenities	Added amenities such as fitness, daycare, bicycle storage, EV charging	Limited tenant amenities	Very basic to no tenant amenities

Adapted from: NAIOP Research Foundation: Terms & Definitions, 2017.

Note: Within highly desirable areas or Central Business Districts (CBDs), such as downtown Vancouver, "A" class is further classified into "AAA". A triple A class building is new construction (within the last 10 years) and features the most advanced technologies and building design. It captures premium rental rates and is occupied by tenants with strong covenants wishing a prestigious address. In commercial real estate, a tenant's covenant is generally defined as the tenant's financial standing, prior lease history and fit within the landlord's existing tenant mix.



BC OFFICE PORTFOLIO STATISTICS

As at year end, 2022 the BC portfolio breakdown for major office markets was as follows:

CLASS	# OF BUILDINGS	TOTAL INVENTORY (Sq. Ft.)	
DOWNTOWN VAN	ICOUVER SECTO	R	
AAA	15	4,609,156	
A	39	9,093,916	
В	113	13,912,211	
C	113	5,804,931	
Total	272	33,420,214	
METRO VANCOU	/ER SUBURBAN S	ECTOR	
Broadway Corrido	r (incl. Mount Pleasant	t & False Creek Flats)	
А	56	5,215,473	
В	55	2,604,789	
C	17	700,043	
Total	128	8,520,305	
Vancouver other			
А	23	2,502,339	
В	20	1,083,027	
C	17	715,935	
Total	60	4,301,301	
Richmond			
А	28	2,312,327	
В	28	1,564,500	
C	9	444,451	
Total	65	4,321,278	
Burnaby	-		
А	57	7,385,118	
В	53	3,524,313	
C	14	543,581	
Total	124	11,453,012	
Tri-Cities			
А	6	362,184	
В	3	121,024	
С	4	196,861	
Total	13	680,069	
New Westminster			
А	9	954,408	
В	13	795,659	

С	12	477,098
Total	34	2,227,165
North Shore		
А	27	1,304,636
В	25	1,252,063
C	8	212,857
Total	60	2,769,556
Surrey		
AAA	7	1,685,630
А	32	2,072,913
В	38	1,713,903
C	22	1,057,549
Total	99	6,543,345
Langley	' '	
А	19	1,204,632
В	16	712,565
С	5	181,188
Total	40	2,098,385
METRO VICTORIA		
AA	6	738,108
А	24	1,237,746
В	98	4,115,059
С	137	2,739,428
Total	265	8,830,341
THOMPSON / OKA	NAGAN (Kelowna	& Vernon)
A	67	2,243,087
В	167	2,310,008
C	75	689,225
Total	309	5,242,321
GRAND TOTAL -	ALL REGIONS	
AAA	22	6,294,786
AA	6	738,108
A	387	35,888,779
В	516	33,709,121
С	433	13,763,147
Total	1,364	90,393,941

Source: Colliers Vancouver Office Market Report Q4, 2022, CBRE Market Report Q3 2021 (Victoria only).



INDUSTRIAL BUILDINGS

Industrial buildings are facilities wherein the space is primarily used for research, development, service, production, storage or distribution of goods, and may also include some office space. Industrial buildings are further divided into three primary classifications: manufacturing, warehouse, and flex buildings. Typical characteristics of the differing types of industrial buildings are shown in the chart below:

Building Type		
Manufacturing building	A facility primarily used for the conversion, fabrication and/or assembly of raw of partly wrought materials into products or goods. Manufacturing buildings can be of any size, sub-sets include heavy and light manufacturing.	
Warehouse	A facility primarily used for the storage and/or distribution of materials, goods and merchandise. Sub-sets include: cold/refrigerated storage, distribution buildings and truck terminals. Size is typically 50,000 sf +, however truck terminals can be as small as 20,000 sf.	
Flex Facility	Designed to allow its occupants flexibility of alternative uses of the space, usually located in an industrial park setting. Sub-sets include: data centres, labs, call centres, service centres and showrooms. Size ranges from 20,000 – 150,000+ sf.	

Source: National Association of Industrial and Office Properties Research Foundation – NAIOP Terms & Definitions 2017

BC INDUSTRIAL PORTFOLIO STATISTICS

As at year end, 2022 the BC portfolio breakdown for major industrial markets was as follows: *(note: statistics not available for breakdown by industrial building type)*

Industrial Portfolio		
SUBMARKET	TOTAL INVENTORY (Sq. Ft.)	
Richmond	35,883,153	
Surrey	41,590,050	
Burnaby	28,043,819	
Vancouver	21,232,176	
Delta	30,258,427	
Langley	20,705,394	
Greater Victoria	9,379,102	
Coquitlam	7,342,770	
Port Coquitlam	8,887,649	
Abbotsford	9,581,644	

North Vancouver	4,747,391
Chilliwack	3,999,696
New Westminster	3,499,038
Maple Ridge/Pitt Meadows	4,416,588
Port Moody	561,059
Tsawwassen First Nation Lands	1,348,920
Nanaimo & mid. Vancouver Isl.	6,789,594
Kelowna	13,732,299
Total	184,813,216

Source: Colliers International Market Reports, Q4, 2022



SHOPPING CENTRES

Shopping Centres vary the most dramatically by building type. This classification is largely based upon the building's location relative to the area's population density and income per capita.

Building Type	
Super Regional Centre	A super regional center provides for extensive variety in general merchandise, apparel, furniture and home furnishings, as well as a variety of services and recreational facilities. It is built around three or more full-line department stores of generally not less than 100,000 sf each. The typical size of a super regional center is about 800,000 sf of gross leasable and may range in size from 600,000 sf to more than 1,500,000 sf. Locations are usually along mass transit or major highways. Their primary trade area is 10-30 kilometers, servicing a large population base. Ownership is typically held by large investment groups, pension funds, real estate trusts or similar entities. These properties are professionally managed, usually by a national company.
Regional Shopping Centre	The regional center provides for general merchandise, apparel, furniture, and home furnishings in depth and variety, as well as a range of services and recreational facilities. It is built around one or two full-line department stores of generally not less than 100,000 sf. The typical size is 450,000 sf of gross leasable area and may range in size from 300,000 to 800,000 sf. Their primary trade area is 8-20 kilometers. Ownership is typically held by large investment groups, pension funds, real estate trusts or similar entities. These properties are professionally managed, usually by a national company.
Power Centre	An unenclosed shopping centre of approximately 250,000 to 750,000 sf of gross leasable area that usually contains three or more big box retailers and various smaller retailers (usually connected via strip mall) with common parking shared amongst the retailers. Ownership is typically held by large investment groups, pension funds, real estate trusts or similar entities. These properties are professionally managed, usually by a national company.
Factory Outlet Centre	This specific purpose-built centre type consists of separate manufacturers' and retailers' outlet stores selling brand-name goods at discounted prices, typically selling surplus stock, prior-season or slow selling merchandise and especially designed merchandise. These centres are generally not anchored, although certain brand-name stores may serve as "magnet" tenants. Outlet centres can be either open-air or enclosed and are typically between 50,000 to 400,000 sf. Their primary trade area is 20-50 kilometers. Ownership is typically held by large investment groups, pension funds, real estate trusts or similar entities. These properties are professionally managed, usually by an arm of the ownership group.
Lifestyle Centre	Most often located near affluent residential neighborhoods, this centre type caters to the retail needs and "lifestyle" pursuits of consumers within its trading area. It has an open-air configuration and typically includes at least 50,000 sf of retail space occupied by chain specialty stores. (The whole centre



	may range from 150,000 to 500,000 sf.) Other elements differentiate the lifestyle centre as a multi-purpose leisure-time destination, including restaurants, specialty food stores, entertainment, and design ambience and amenities such as fountains and street furniture that are conducive to casual browsing. It may be anchored by a large-format specialty store, a smaller version of a "big box" store and/or entertainment venues such as cinemas. The primary trade area is 10-20 kilometers. Ownership is typically held by large investment groups, pension funds, real estate trusts or similar entities. These properties are professionally managed.
Community Centre	Typically 100,000 – 400,000 sf, usually anchored by a junior department store with a large variety of, often discount, stores. These centres can be open air or enclosed and are characterized by a significant number of off-street parking spaces. Ownership is usually single title, management is professional but typically local.
Neighbourhood Centre	Provides for the sale of convenience goods (foods, drugs, and sundries) and personal services (laundry and dry cleaning, barbering, shoe repair, etc.) for the day-to-day living needs of the immediate neighborhood. Often built around a supermarket as the principal tenant. The neighborhood center has a typical gross leasable area of 50,000 sf and may range in size from 40,000 to 100,000 sf. Ownership is generally single title and management is often a local business operator.
Convenience Centre	Convenience Centres are open-air complexes, generally between 10,000 and 40,000 sf. They provide a narrow mix of goods and services to a limited trade area. Typical anchor tenants include 7-Eleven, Mac's or similar mini-mart. Onsite parking is usually in front of the store(s). Ownership is generally single title and management is often a local business operator.
Retail Mixed Use	Multi-component structure developed as a single and coherent entity where its retail component is predominant and accounts for one of at least two significant revenue-producing uses. The non-retail uses could be residential, office, hotel, transportation (airport, train or bus stations) entertainment, civic or cultural venues and/or other uses that mutually support a substantial retail component. Its primary trade area can vary widely, depending on the composition of the project. Ownership varies and management will sometimes be separated according to the various uses.

Source: International Council of Shopping Centers, ICSC Canadian Shopping Centre Definitions, 2010

As at year end, 2022 the BC portfolio breakdown for major retail markets was as follows:

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Retail Portfolio			
SUBMARKET	NUMBER OF CENTRES	TOTAL INVENTORY SQ. FT.	
Vancouver	4	960,543	
Burnaby	10	4,061,792	
Coquitlam	10	1,907,027	

Port Coquitlam	5	752,312
New Westminster	5	1,195,776
Richmond	13	2,854,987
Delta	10	2,165,576
Surrey	27	5,544,161
Langley	15	2,753,473
Maple Ridge	4	618,822



Abbotsford	10	2,559,069
North Vancouver	11	1,422,227
Chilliwack	8	1,431,270
Mission	3	553,696
Pitt Meadows	2	527,586

Port Moody	2	136,344
West Vancouver	2	1,379,329
Total	141	90,393,941

Source: developed for BOMA BC by CB Richard Ellis, Vancouver 2023

THE LEASE

The lease is the contractual agreement between the tenant and the landlord. While it varies by asset class: office, industrial and retail, the process leading up to signing the lease is generally the same for each.

Typical lease transaction scenario			
1.	Tenant hires broker (not always, particularly in the case of a lease renewal).		
2.	Tenant and broker discuss tenant's needs.		
3.	Broker prepares list of available spaces and sets up viewings with landlords.		
4.	Tenant and broker view available spaces .		
5.	Tenant and broker make an offer to lease on desired space (offer will include: length of lease term, options for renewal, finishing of space (or not), number of parking spaces (if applicable), demolition (or not) of space upon vacating).		
6.	Negotiations with landlord ensue, and lease terms and conditions are agreed upon.		
7.	Tenant is presented with landlord's base building design specifications.		
8.	Tenant hires designer (less relevant in industrial space).		
9.	Designer develops drawings based upon tenant's needs and style, City codes and landlord's specifications.		
10.	Designer seeks approval of drawings from landlord and City (by obtaining construction permit from City).		
11.	Landlord approves drawings, and construction and fixturing ensues.		
12.	Upon completion of construction and fixturing, designer seeks occupancy permit from City.		
13.	Upon receipt of occupancy permit, tenant occupies space.		



Lease types	Description	Prevalence	
Gross lease	Tenant pays fixed rent that covers all building expenses (utilities, taxes, maintenance, property management staff salaries, marketing etc.). Sometimes referred to as an inclusive lease. The landlord assumes risk of increasing costs but tenant lease terms are generally shorter and/or tenant may pay slightly higher rents.	 more prevalent in residential leases than commercial leases 	
Modified gross lease	Tenant pays base rent plus some (but not all) of the operating expenses of the property while the landlord pays the remaining operating expenses. For example, a tenant may be responsible for maintenance costs and a specific portion of insurance premiums, while the property owner covers taxes and remaining insurance costs. Gross leases are unique to each deal.	 single tenant buildings industrial buildings controlled access tenancies, such as government or medical where specialized equipment is onsite or increased security clearance is necessary, hence they wish to utilize or contract their own maintenance personnel 	
Tenant pays rent plus operating expenses. Operating expenses will include common area maintenance and may or may not include further expenses such as building staffing, insurance and property taxes.		 common in single tenant office buildings 	
Triple net leaseTenant pays rent, all operating expenses, plus property taxes and building insurance.		 most common office lease, particularly for multi-tenant office buildings 	

Lease terms are highly negotiated between the tenant and the landlord. A more desirable tenant will have a stronger negotiating position. Key points of negotiation are:

Negotiable lease terms			
Base rental rate	Base rental rate (excluding any added operating costs) is highly dependent upon the market. Several factors can improve a tenant's negotiating power within that market range, including the tenant's covenant, the length of their term, and of course the amount of space they are wishing to occupy.		



Lease length	Typically a landlord will expect a tenant to sign a lease for a term of 5 to 10 years. Smaller tenants can sometimes sign a lease for a shorter term if vacancy rates are increasing or if the end of their desired term aligns with the lease termination of one of the surrounding tenants, thus allowing for expansion of one of these tenants.		
	Tenant improvement allowance is a negotiated amount that tenants with strong <u>covenants</u> are granted for improvements to their space. The theory being that a tenant's improvements will enhance the overall building value, hence the landlord should contribute to these improvements.		
Tenant improvement allowance	The landlord and tenant will negotiate this amount based on dollars per square foot, then the tenant will pay for these improvements up front and seek reimbursement from the landlord upon completion of the build out and presentation of receipts. While improvement allowances vary widely and are extremely market driven, currently Vancouver landlords are paying a renewing office tenant with a strong covenant between \$0 - \$25 per square foot. New office tenants that satisfy the landlord's profile of desirable and deserving of an improvement allowance are receiving, on average, between \$50 - \$100 per square foot for downtown buildings and \$40 - \$50 per square foot for suburban buildings.		
	Upon vacating the premises, the landlord will own these improvements. That said, the landlord may choose to insert a demolition clause that requires the tenant to remove all improvements to the space upon vacating the premises (typical for longer term leases) - this protects the landlord should the improvements not be appealing, so the landlord can market the vacated space as empty as opposed to dated looking. Demolition clauses are highly common in retail and industrial leases. In the case of retail, it is done to ensure a chain store's unique look and fixturing are removed; and in the case of industrial, it is done to ensure their specialized, sometimes extremely heavy, equipment is removed.		
Percentage rent	Unique to retail leases is the concept of percentage rent, where the retail tenant pays a proportionate amount of their sales to the landlord, over and above their base rent. The justification stems from the consideration that the success of the retail tenant is derived largely from the efforts of the shopping centre to market and attract customers to its location. A pause on percentage rent was one of the first concessions landlords made to retail tenants during the Covid pandemic of 2020.		
Parking	Most office buildings will have a standard ratio of parking available to tenants, something like: 1 space for every 1200 sf of occupied space. This is not to suggest that parking is negotiated as a 'free' benefit, simply the number of parking spaces per tenancy is negotiable.		



The above list is not finite, tenants will look to negotiate numerous terms and conditions of the lease to suit their unique business needs. Certain lease terms, however, are non-negotiable. All tenants are required to abide by these non-negotiable terms:

Non-negotiable lease terms			
Operating expenses	Operating expenses are the costs associated with owning and managing the building. These include property taxes and maintenance to the building structure; and in the case of office buildings, it will often include services such as utilities, janitorial services, security services, property management staffing, and maintenance and repairs to common area plumbing, electrical and carpentry. In a net or triple net lease, the tenant will be billed back their proportionate share of these expenses based upon their square footage. While the type of lease: gross, modified gross, net, or triple net will stipulate how operating expenses are collected and paid, the actual expenses are non-negotiable. A tenant cannot opt out of paying their proportionate share of operating expenses.		
Insurance	All tenants must satisfy the landlord's basic insurance requirements.		

Sophisticated landlords will include energy management in their lease. For some landlords it may simply take the form of a statement about the value of energy efficiency and conservation and the landlord's encouragement that the tenant consider these values in the design and build out of their space. For the most sophisticated landlords, the lease will dictate that the tenant only utilize certain low carbon footprint materials or energy efficient specifications. These specifications will also be detailed in a supplemental document such as a tenant construction manual or as a Schedule to the lease.

The 'green lease' is a format many sophisticated landlords have adopted. A green lease is loosely defined as a lease that details the landlord's environmental values and specific objectives or targets. It then describes the landlord's expectations of the tenant with respect to compliance with certain rules and regulations related to conservation, sharing of consumption information, and fixturing specifications for their space. It may even include design certification levels that tenants are required to comply with; for instance: <u>LEED</u>, which is an acronym for Leadership in Energy and Environmental Design, or <u>WELL standards</u>, which incorporate human physical and psychological wellbeing into space design and function.

The Real Property Association of Canada (REALpac) first attempted to provide a more precise definition of the green lease by developing a template green lease for the commercial real estate industry in June 2008. The REALpac green lease has been revised several times and the <u>most</u> recent version was released in 2021.



Support for the green lease is on the rise, however adoption and implementation remain a hurdle. It can take ten+ years to implement a green lease with existing tenants, based upon challenges inherent in lengthy lease renewal terms that sometimes inhibit the allowable negotiable terms associated with a renewal.

Additionally, some landlords are still anxious about requiring tenants to sign a green lease, thinking such a requirement might not be well received or may limit the pool of potential tenants.

Key Stakeholders

Energy management, decarbonization (and retrofit) decisions are based upon a multitude of circumstances and rationale. Despite these variables, it is people who ultimately make these decisions and their attitudes, knowledge and motivations leading to their decision-making processes are very individualized.

Therefore, we begin by profiling the key stakeholders, for the goal of determining common external influences driving their decision making with respect to energy management and retrofit opportunities for their buildings

The key stakeholders are:

- Landlord
- Tenant
- Contractor / Consultant / Designer
- Broker

LANDLORD

For the purposes of this report, the landlord is defined as any person acting on behalf of the owner's interest – the owner, of course, being the owner of the commercial real estate asset.

OWNERSHIP MODELS

Owners range from the shopkeeper who may own a two storey building and live above it, to the professional who may 'dabble' in commercial real estate and own a few small buildings, to the family owned commercial real estate businesses (like the Bosas, the Wilsons, the Diamonds and the Beedies, of Vancouver), to the institutional owners of commercial real estate who manage pooled funds and pension funds that invest in both large scale and small scale commercial real estate.



Institutional owners of commercial real estate account for the majority of class A & B commercial real estate ownership in Canada and this trend seems to be growing. The structure of this ownership model requires they answer to a board of directors, and so generally speaking, this level of governance raises the bar in terms of not just what they are in investing in but how they are investing. Accordingly, this model has encouraged the consideration of environmental and social responsibility as components of their overall business strategy and has assisted in advancing the rest of the industry in this direction. This has also resulted in more focus on energy management and decarbonization measures as key components of their overall ESG (environmental, social, governance) strategies.

Of course, oversight by a board of directors also requires extraordinary fiduciary responsibility. And so, even though sophisticated landlords and owners may understand and acknowledge the long-term return on investment (ROI) for energy retrofits, this also has to be balanced with considerations of the capital outlay required and how such projects fit within the overall capital plans, not just for the building, but for their entire portfolio. This is particularly relevant during lean financial periods. The collapse of world financial markets in 2008 was an example of such a scenario: investment funds who owned Canadian real estate also invested in a multitude of other assets beyond just real estate, typically scattered throughout the globe. So while most would agree that Canada fared better than many nations during the collapse, when the investment funds' other global assets suffer greatly, there was a trickle down affect that impacted their Canadian real estate portfolios and ultimately the day to day investments in their Canadian buildings.

Alongside fiduciary responsibility comes expected returns on investment for shareholders. It is important to keep in mind that investment funds owners (and particularly pension funds) are investing everyday, working Canadians' money in an effort to ensure sustained growth of that money, resulting in positive year over year returns on those funds, such that when we are ready to divest our investments or start receiving our pensions, there will be plenty of positive cash flow to pay us out. For this reason, many institutional ownerships have instituted standard ROIs (typically 10 years or less) that capital projects must meet in order to be approved. Certainly, there are work arounds and exceptions but generally these standard ROIs hold firm.

There are also differing ownership models within the institutional investor category that can have a significant effect on how the asset is managed. For instance, some landlords manage real estate portfolios on behalf of only one or two institutional or pension funds, whereas others will manage on behalf of several. Cadillac Fairview is an example of a firm that invests on behalf of one fund (Ontario Teacher's Pension Fund), whereas Colliers International, one the largest commercial real estate firms in Canada, is an example of a firm that invests on behalf of numerous clients. Property Management firms that fall into the latter category, like Colliers, will sometimes have a timeline attached to their investments, such as ten years, after which time the client wishes to capitalize on those investments. Given these shorter timelines the investor is often less interested in capital outlays that don't fall within their rate of return horizon.



It is also worth noting that most real estate owners have a mixed portfolio of core assets and non-core assets. Core assets are prestigious buildings that owners rarely market for sale unless dire financial circumstances arise or a substantial unsolicited offer is made. Conversely, non-core assets are properties that are less dazzling in appearance and more likely to be marketed for sale, particularly in a volatile economy. Typically large capital investments are less consistent in noncore assets, as these buildings are considered more 'short to medium-term' investments. Accordingly, energy retrofits can become less of a priority over financial return in these non-core and shorter-term investment buildings.

An external stimulus that is gaining momentum and influencing investment strategies is tenant demand for more environmentally responsible building environments. Some large tenants with sophisticated corporate ESG programs are dictating that they will only reside in green buildings, and they are becoming more astute at understanding what defines a building as 'green'. Unfortunately, given the relatively small size of the BC commercial real estate market, this trend has been slow to take hold, particularly within B & C class buildings.

Needless to say, commercial real estate ESG platforms, and energy management programs in particular, vary greatly from one landlord to the next but generally speaking, it is the larger institutional owners who are leading the industry. What has led them are a variety of factors, but one such factor has been certification and designation programs.

Programs like the Building Owners and Managers Association's (BOMA) Building Environmental Standards (BEST) and Leadership in Energy and Environmental Design (LEED) have advanced the growth and proliferation of environmental sustainability within the commercial real estate sector. These programs' standards for systems efficiencies and operational best practices far exceed most regional environmental regulations and standards, encouraging landlords to stay ahead of minimum requirements. As at year-end 2022, there were 3,125 buildings certified BOMA BEST in Canada (and over 7000 since the program's inception)¹, 611 buildings certified LEED O&M (Operations and Maintenance – which is the most appropriate certification for existing buildings), 2471 buildings LEED Design & Construction certified (which is the most appropriate certification for new construction)².

While market competitiveness might have been a primary motivation for entering into one of these certification programs, upon completion the landlord not only has a more accurate picture of their building's environmental health and benchmarking, they also understand where opportunities exist for further efficiency and decarbonization investments.

¹ Source: BOMA Canada (<u>https://bomacanada.ca/bomabest/</u>)

² Source: Canada Green Building Council (CABGC) (<u>https://leed.cagbc.org/leed/projectprofile_en.aspx</u>)



These programs, and more particularly the environmental policies that have been developed stemming from them, have led to the inclusion of efficiencies and green building stipulations as a component of many landlords' base building standards. Base building standards are the mechanical, electrical and design specifications that the landlord determines will be the chosen standards throughout their building. These standards extend to within tenant spaces in

BOMA BEST Office buildings have reduced their energy use by 25% since 2008. They now average 24.7 ekWh/ft2 /yr. Which is 3% lower compared to the national average.

Source: BOMA Canada National Green Building Report 2021

addition to common areas. Unfortunately, the level of adherence to the building standards varies from landlord to landlord and even from building to building. This inconsistency is a gap and opportunity that is explored further in this report.

ORGANIZATION CHART

There are varying management models throughout the commercial real estate industry, however, the chart below serves to give a general sense of how the typical, institutionally owned asset is managed:



The institutionally owned assets tend to have the most resources and structure to their organizational chart. Smaller assets and smaller property management companies may have only a selection of the above positions within their organization.

Enough has been said about the owner, so following is a review of other key positions within the landlord's organization.



CEO

The CEO reports to the board of directors as well as to the owner directly. The CEO of a commercial real estate organization typically has 20+ years of experience within the commercial real estate industry. In addition to ensuring the owner's assets are being managed according to their desired investment path, the CEO also sets corporate policy and direction for the organization. Essentially, the CEO oversees all aspects of the commercial real estate organization. For some organizations this includes not just buying, selling, and managing property on behalf of owners but also building new properties and re-purposing existing properties.

In non-institutionally owned assets, the CEO position is typically the owner and will sometimes also assume the role of Asset Manager.

Asset Manager

The Asset Manager is a key decision maker, acting on the owner's behalf. It is the Asset Manager's position to review every lease offer and capital project to ensure they align with the owner's priorities and to ensure the Property Manager is maintaining the building according to the owner's standards. Typically the Asset Manager will work in consultation with the Building Manager to develop the building budget and capital investment plan. The Asset Manager also utilizes valuation models for determining the timing for purchasing or selling commercial real estate assets on behalf of the owner.

The Asset Manager will have moderate to intermediate knowledge about energy retrofits, energy management and decarbonization benefits (stemming from the ESG demands and profile of the owner) but is more dependent upon Architects, Engineers and Operations Managers for providing expertise and recommendations in these areas. That said, the Asset Manager does have considerable decision-making authority where these projects are concerned.

Leasing Manager

The Leasing Manager is primarily charged with ensuring the building is leased to the most desirable tenants, for the highest possible market rent and to maximum capacity (note, 100% capacity is not necessarily desirable as it does not allow for expansion of existing tenants). In larger organizations, the Leasing Manager position expands to a full leasing department, headed by a Vice President, a Leasing Director, Leasing Managers and Leasing Administration and support staff. Just the opposite is the case within smaller ownership models, where no leasing department exists and this function is subcontracted to a brokerage firm.

The Leasing Manager is required to have a sound knowledge of the marketplace. This includes market forces affecting real estate, occupancy and design trends, and of course tenants who may be looking for space. The Leasing Manager keeps the Asset Manager informed of these conditions for short and long-term strategic planning. The Leasing Manager also interacts regularly with external leasing brokers. These external brokers provide further insight into local



market trends, bring potential tenants to view available space, and present offers to lease such space.

The Leasing Manager will have a rudimentary knowledge of energy management but generally only as it relates to the existing systems within their buildings; this knowledge is unlikely to extend to decarbonization opportunities.

Property Manager

The Property Manager is responsible for oversight of the day-to-day operations of the building as well as its budgets. The primary role of the Property Manager is to ensure the tenant is being provided their space according to the terms of the lease. This varies according to the asset class but may include some or all of the following services: janitorial, building maintenance, security, building marketing programs, parking services, landscaping services, access to fitness facilities, etc.

The Property Manager oversees numerous contracts and contractors for servicing the building, and it is the Property Manager whom the tenant contacts in the event they require service.

Alike with the leasing department, the Property Manager will sometimes have a complement of support staff. This staff will almost always include a Property Management Assistant and a Building Operator; and within larger organizations, staffing may also include some or all of the following: an Operations Manager, a Construction Manager, a Tenant Services Manager, a Parking Services Coordinator, a Marketing Manager, a Security Manager, a Contracts Manager, and an Accounting Manager (note, the accounting function is often a lighter role at the property level; most organizations have a full accounting department at the corporate level).

The Property Manager will have basic to intermediate knowledge about energy management, retrofits and decarbonization opportunities but often only as these relate to the systems within their buildings, and is more dependent upon consultants, contractors, and the Operations Manager for providing expertise and recommendations in this area.

Operations Manager

The Operations Manager oversees the mechanical, electrical and construction aspects of the building. The Operations Manager will typically have several Building Operators reporting to them. Within smaller portfolios, the Operations Manager is simply replaced with Building Operators. The Building Operators are the onsite personnel who maintain the building systems and oversee any maintenance contracts. Knowledge, experience, and technical abilities vary dramatically amongst Building Operators. The larger or institutionally owned organizations are more likely to attract and retain the more experienced personnel and to require ongoing education and training of them. Building Operators will have a strong knowledge of energy management and retrofit opportunities, but some are slow to grasp decarbonization opportunities, as they've been trained for decades to focus on energy conservation as a priority.



Regardless they still rely heavily upon engineering consultants for energy modeling and design schemes for retrofit or replacement options.

Within smaller, less sophisticated properties and portfolios, the Building Operator can be highly untrained and function more like a property caretaker, looking after janitorial, garbage removal, and basic security at their sites. In these scenarios, the Building Operator generally has very limited knowledge of energy management, retrofit or decarbonization opportunities.

Building administration

Building administration varies from portfolio to portfolio but generally includes: property management assistants, accounting, tenant services, janitorial (usually sub-contracted) and security (usually sub-contracted).

The building administration personnel, along with the Building Operators are the key personnel that come into daily contact with the tenant. These positions are not relevant to industrial properties (except for accounting), as limited to no building services are typically provided for industrial tenants.

Building administration will typically have very limited knowledge about energy management. They would direct any questions received from tenants on this topic to the Operations Manager or Building Operator.

INFORMATION GAPS & BARRIERS

Even with sophisticated landlords for whom energy management is a corporate priority, there are information gaps and barriers to contend with.

Environmental, social, governance (ESG) within commercial real estate is well established within most sophisticated, institutionally owned organizations within Canada. These organizations are publicly reporting their efforts to various external platforms like: Global Real Estate, Sustainability Benchmarking (GRESB), Global Reporting Initiative (GRI), and others; and are actively tracking their progress towards net zero or other targets.

ESG is also rapidly growing amongst the sophisticated, non-institutionally owned organizations. Here, however, their progress varies; some are adopting many of the strategies and reporting practices of their institutionally owned competitors, while for many others, ESG is still largely at the value statement and policy phase.

Actual implementation of these policies depends upon a number of external influences and internal implications. As previously mentioned, market influences are the strongest external factor but internally there are often challenges with interpretation, communication and implementation. Moving a corporate policy on energy management or decarbonization from the head office/board room table through the chain of command to the actual mechanical room of a



building, or into a tenant's suite, is fraught with opportunities for re-interpretation and challenged by financial practicalities.

For instance, even when the building specifications require a tenant build-out to entail energy efficient alternatives, Property Managers are often lenient with tenants who resist because they don't wish to start off the relationship on the wrong foot. The designers, brokers, asset managers and leasing managers all fall away from the relationship once the tenant has moved in and it's up to the Property Manager to maintain the tenant relationship for the next five or ten years. Landlords have been far too lenient with tenants on the design side. This needs to be a top-down decision that is driven through the chain of command to ensure more compliance at the building level.

There is definitely room for improvement in the definitions and applications of energy management within the CRE industry, particularly amongst the smaller, non-institutionally owned assets.

The smaller, less sophisticated owners are often driven by regulation as opposed to innovation.

Building Operators of less sophisticated owners are sometimes poorly trained and slow to adopt industry advancements. These assets are also typically leaner in their administrative and resource capacity, thus less able to undertake more comprehensive programs.

Simplicity is key for engaging the less sophisticated properties and landlords more profoundly. BOMA BC's "<u>Deep Energy Retrofit Procurement Guide</u>" is an example publication that provides a step-by-step process for investigating energy management and retrofit opportunities, detailing how to prepare a business case, develop an RFP, review proposals, develop the contract, and manage the contractor outcomes. Similar resources or programs, without laborious administrative elements, are well received by the industry.

SPLIT INCENTIVE ISSUE

One of the key challenges with engaging landlords in energy management and energy retrofits is the recipient of the financial payback. Within the office market, the most common tenant lease is referred to as a 'triple net lease', whereby the building's operating expenses (janitorial services, building maintenance, utilities, etc.) are charged back to each office tenant on a proportionate cost per square foot. As such, the tenant, not the landlord, receives the financial benefit of energy savings resulting from retrofits, despite the landlord being the one who bore the costs.

Certainly, one could argue the landlord receives financial benefit due to potential increased value of their building, given its lower GHG emissions or increased efficiencies, but the direct payback ratio leans towards the tenant. This 'split incentive ratio' is a hurdle for many landlords who desire more explicit cost/benefit derivatives from their retrofit investments.



Tenant

Without tenants, the value of a commercial real estate asset is dramatically reduced. The negotiating power of the tenant will increase or decrease according to the current market environment and vacancy rates. When vacancy rates are high, the landlord is more apt to make concessions to the tenant. These concessions can come in the form of upgrades to the existing space, a tenant improvement allowance, or a slightly reduced rental rate within the market range. Conversely when vacancy rates are low, the tenant is less likely to receive landlord funded upgrades to their space or a substantial tenant improvement allowance, and they are more likely to pay higher rental rates.

Of course, all these negotiation elements are highly influenced by a tenant's covenant. In commercial real estate, a tenant's covenant is generally defined as the tenant's financial standing, prior lease history and fit within the landlord's existing tenant mix. Consequently, a tenant with a strong covenant will be more desirable to the landlord and that tenant will have a stronger negotiating position, regardless of current market conditions, than a tenant with a less desirable covenant.

Tenants, like properties, vary dramatically in size and sophistication³. Many larger, more sophisticated tenants have developed corporate ESG programs that include energy management and/or decarbonization. Thus when it comes to selecting space or retrofitting an already leased space, the larger, more sophisticated tenant tends to be more interested in energy efficient options and/or understanding the carbon reduction strategies of their landlord.

Yet despite this interest, the professionals consulted for this report all agreed that location, price, and aesthetics continue to remain the priorities for most tenants when selecting their space and the fixturing options within that space.

Reaching tenants and influencing their decision making about energy management and low carbon alternatives requires support from other stakeholder groups, and while the benefits can be far reaching, the specific benefits to tenants vary according to each asset class. One key difference being retail and industrial tenants receive immediate financial payback from energy efficient options, as they are almost always independently metered, whereas office tenants receive only their proportionate share of energy savings as very few office buildings provide independent metering for tenants.

Several other factors differentiate tenants across the various asset types, as detailed below.

³ Note: sophistication is the commercial real estate term used to describe Tenants who have a greater familiarity with the contractual agreement between the Landlord and Tenant and a stronger understanding of their building environment.



OFFICE TENANT

The largest office tenant market in BC is, of course, Vancouver. Yet the Vancouver office market is relatively small compared to other major markets around the world. Even within Canada, the Vancouver office market is fourth in size, behind Toronto, Montreal, and Calgary. Vancouver has traditionally been composed of satellite offices, not head offices. Interestingly however, Vancouver does boast the highest (asking net) office rents in the country – averaging \$34.04/psf. By comparison, Toronto is a distant second at \$25.71/psf. Of course, these figures also correspond to vacancy rates, where again Vancouver is the lowest in the country at 5.9%⁴.

For the average-sized, office tenant, of 8,000 sf (within downtown Vancouver) and 12,000 sf (within suburban markets), consideration and installation of low carbon options or energy efficient options are rarely a priority; mostly because of lack of awareness, but also because these (smaller) tenants are more focused on office functionality over energy management.

That said, larger, more sophisticated tenants are typically more in touch with ESG issues. While this is a generalization drawn by the researcher, based on discussions with landlords, designers, and brokers, it is important for recognizing a distinction in the level of engagement and interest amongst the vast majority of office tenants with respect to investigating the carbon intensities of prospective buildings prior to leasing, or in decision making about low carbon or energy management options within their already-leased premises. Only the most sophisticated office tenants (generally government or multinational organizations) make it a priority to lease space in buildings that align with their corporate ESG directives. Likewise, it is often these same tenants who take the initiative to install energy efficient or low carbon options within their space. Most office tenants simply go along with whatever options are chosen by their designer or dictated by their landlord's design standards and specifications.

Another challenge with engaging office tenants in energy management and decarbonization is their indirect knowledge of the impact and costs relating to their consumption. As stated, most office tenants don't receive their own utilities bills, instead they are charged building operating costs, which are fees charged to each tenant on a cost per square foot basis, alike how their rent is charged. Operating costs cover all building services such as janitorial and security, building amenities, building management salaries, building maintenance, property taxes for the building, as well as the building's utilities. As mentioned, this contractual relationship and payment of operating costs is referred to as the triple-net lease.

When the landlord initiates energy retrofits, the tenant derives benefit in the form of lowered utility costs and lowered overall operating costs. However, when an office tenant chooses low

⁴ Source: Colliers Canada National Market Snapshot 2022, Q3.



carbon or energy efficient systems and design within their own premises, they still only receive their proportionate share of energy savings on a cost per square foot basis.

Unfortunately, some tenants take the position that low carbon or energy efficient systems or design within their space only serves to subsidize and benefit the rest of the building's tenants. Therefore the 'sell' often needs to include incentives so they receive a more direct financial payback.

The professionals interviewed for this report consistently agreed that the most opportune time for the consideration of low carbon and energy efficient options for tenants is during the construction or build out of their office space. Rarely will an office tenant choose to retrofit their existing space once they already occupy the space. The main reason being a retrofit can be extremely disruptive to productivity and as previously stated, they don't realize a direct financial return for their efforts.

The best pipeline to educating office tenants about energy management and decarbonization is through the stakeholders that advise them during their transaction and occupancy process, i.e. during their search for space, their lease negotiations and during the build out of their space.

INDUSTRIAL TENANT

The industrial tenant is dramatically different from the office tenant, not just because of their distinctive environment but also because the lease obligations of the landlord to the industrial tenant are quite distinctive. With regards to energy management, the most significant lease clause is the requirement of the industrial to initiate and pay for their own building services. This often includes installation of their own HVAC system and always includes paying directly for their own utilities.

Because the industrial tenant receives their own utility bill, has immediate knowledge about their consumption, has complete control over their own building environment, and has to pay directly out of their own pocket, they are much more apt to recognize the financial benefits of energy efficient and low carbon alternatives (where lower carbon also equates to lower cost).

Regardless, the majority of industrial tenants, alike office tenants, are still reliant upon someone else to provide this information for them.

It is important to keep in perspective that tenants are experts in their *own* industry, whether that is shipping, mining, gaming, manufacturing or otherwise. They are not experts in HVAC, lighting design, efficient space maximization nor any other energy management measure. Nor should they be expected to be experts.



On the other hand, the real estate professionals who consult them should have a working knowledge; and particularly in industrial environments where the tenant is commonly responsible for installation of their own HVAC system, and thereby association their carbon emissions and utility bills; it is the professional duty of the real estate professionals they are working with to advise them accordingly.

"The last couple of years, especially, Tenants budgets have been tight, and trimming starts on the shop floor or in the warehouse as opposed to the head office. We will point out to the Tenant that the warehouse has inefficient lighting or HVAC and that we should request that the Landlord upgrade it as a part of the (lease) deal, but the Tenant just wants to negotiate on the rental rate. They need to be able go back to their head office and tell them they got a dollar off the rental rate of a 60,000 square foot warehouse, not that they got the Landlord to change the lighting for them."

D. Cannon, EVP, Industrial Leasing, Colliers International

The sophisticated industrial tenant knows what to look for, however. They know they can save substantially if they investigate and implement low carbon/energy efficient systems. But even for these tenants, retrofits are largely budget driven. According to industrial professionals, sometimes industrial tenants will budget for retrofits within their space, but the retrofits will get cut in place of a key business priority or equipment purchase that has a more direct impact on their workforce productivity.

Despite sharing their advice, according to the industrial brokers, many industrial tenants are still not recognizing the long-term value of decarbonization or basic energy management.

RETAIL TENANT

Aside from the large, national chains, retail tenants are generally the least sophisticated tenant in terms of their technical knowledge and behaviour with respect to energy management and decarbonization.

Large national chains will have standard store designs and fixtures across their portfolio. To satisfy building codes nationally and internationally, these chains tend to specify high efficiency lighting, HVAC and design. According to the General Manager of one of BC's largest shopping malls, *"The chains that come out of California are particularly good about energy management and decarbonization. They've had to be, regulation has forced them in this direction."*

Smaller store operators are another challenge. Despite the fact that retail is independently metered and an investment in energy efficient options and/or decarbonization (for instance, partaking in small business incentives to install a heat pump) would be a savings for them, small retailers are quite lacking in knowledge about these opportunities. Most also work with smaller design firms that similarly may not have the depth of knowledge.

There are extraordinary upfront expenditures to opening a retail store, one of the largest of course being the store's inventory. Unfortunately, this often means any further upfront decisions



are highly dependent upon cost. Less sophisticated retailers will often choose the cheapest solution so long as it doesn't adversely affect the display of their product.

Capturing the market of small retailers and informing them about low carbon and energy efficient options must come from the landlord. This is the only stakeholder group that the small retailer is assuredly going to have some interaction with. Energy management and decarbonization opportunities can be driven by the landlord's design specifications and lease stipulations, in addition to building codes.

CONSULTANT/CONTRACTOR/DESIGNER

Landlords are highly dependent upon consultants and contractors in designing and developing their organizational ESG frameworks, investigating their property-specific energy management and retrofit opportunities, and managing the maintenance of their building systems. Naturally, the consultants and contractors have the most energy management expertise within the market, relative to other stakeholders. Designers, on the other hand, can vary widely in their expertise. Designers work more often with tenants, however, some designers will work with landlords on designing building lobbies and common area interiors.

CONSULTANT

While the most sophisticated landlords will have an in-house sustainability team, comprising a VP or Director and a handful of project managers, many landlords will utilize a professional consulting firm to assist in the development of their sustainability platform and programs. These consulting firms will advise on market trends in ESG, be familiar with various external reporting platforms and assist in the development of short and long-term strategic planning for energy management and carbon reduction (and other environmental, social and governance issues) at the organizational and portfolio level. Often these consulting firms also manage the external reporting of progress towards sustainability goals for the client with the support of various data management software tools, many of which have only been developed within the last few years, to assist in the collection, organization and uploading of their data.

Professional engineering firms are also a key player in the landlord's energy management and carbon reduction strategy. They often conduct energy assessments of buildings to gather consumption information on existing equipment and systems and develop energy and carbon modeling scenarios for potential retrofits and replacements. Sophisticated landlords will place a great deal of credence in the assessments and recommendations of their engineering firms, utilizing their data to prepare retrofit business cases and capital plans. Generally speaking, the most sophisticated landlords tend to contract the most sophisticated engineering firms that have access to unique or proprietary software to substantiate their findings and proposed solutions.



While less sophisticated landlords also make use of professional engineering firms for assessments and retrofit solutions, they are generally more apt to participate in utility funded or government funded programs that provide these services a little to no cost. One of the prevailing challenges with these funded programs is they often include participation criteria that prove challenging for smaller landlords, such as significant or cumbersome administrative elements, or requirements of the landlord's portfolio to be a certain size, or the landlord to commit to initiating high minimum spend thresholds on retrofits. Unfortunately, these barriers to participation often result in the sophisticated landlords taking up spots in these programs, as they have the resources to comply, and the less sophisticated landlords continuing to be left behind.

MECHANICAL CONTRACTOR

While some of the less sophisticated landlords do engage professional engineering firms, many simply skip the energy assessment and make decisions solely on the advice of their mechanical contractors. While this practice is not entirely unwise, the mechanical contractors are not providing energy modelling data to present a range of retrofit scenarios and they often represent certain market brands which they wish the landlord to continue utilizing (like Trane or other).

That said, the role and influence of the mechanical contractor is very important in commercial real estate for many reasons. In most every building, sophisticated or not, the mechanical contractor manages the heavy-duty maintenance of the building systems. Very few Building Operators have the specific education or technical knowledge to work on building mechanical systems, beyond making minor adjustments, they are reliant upon their contractors and the ongoing maintenance contracts they sign with them.

While the mechanical contractor often has a fairly strong knowledge of energy management, some are slow to adopt new technologies as this requires further training and certification on their part, some are affiliated with certain HVAC brands and therefore not apt to advise alternative options, and some are simply more focused on maintenance as opposed to retrofits. For all of these reasons, and more, they also don't necessarily focus on decarbonization as a primary consideration in systems retrofits.

Industrial tenants are more likely to utilize consultants and mechanical contractors in the design and build out of their space, due to the often unique nature of their industrial facility (factory, distribution centre, greenhouse, etc.), whereas retail and office tenants are more likely to utilize designers.



Designer

The majority of office and retail tenants, regardless of size, are highly dependent upon designers for guidance in energy systems design and layout⁵. Designers will specialize in market segments, like office, restaurant, clothing store, etc. The larger, more progressive design firms have a strong understanding of energy management opportunities in space design and are proactive about presenting the tenant with these options regardless of the landlord's requirements.

These larger, progressive design firms often charge a higher fee and so they tend to service tenants of mainly A and sometimes B class office properties, or for retail, the national chains.

Energy efficient or low carbon design is not exclusive to tenants who can afford high priced designers, even smaller tenants if presented with low carbon/energy efficient options that cost the same or less than the alternatives will go on the advice of their designer. The challenge exists where smaller tenants often contract smaller, less established design firms that don't consider energy management a priority. They may be more focused on aesthetics, budget solutions or simply lacking in awareness and education about energy management and decarbonization. As the owner of a medium sized, long established design firm in Vancouver stated, *"many design firms target the discount tenant market. They win the project based on offering the cheapest solutions, which are ironically fairly inefficient in terms of design and layout."*

On the opposite side of the design spectrum are the LEED accredited designers who are extremely proactive about encouraging their clients to consider energy efficient or low carbon solutions in the build out of their space. LEED is well branded, and its brand has prompted enormous growth and recognition of the value of green design and its impact on the environment. Because of this, LEED is attractive to tenant organizations wishing to grow their own green brand by association with LEED.

Regardless of the designer's knowledge of low carbon/energy efficient alternatives, one of the principal drivers affecting design is regulation. More specifically, designers are bound to the building code of the municipality within which they are building. Prior to obtaining an occupancy permit, a built suite is subject to and must pass the City building inspection; and prior to beginning construction, the designer must also have presented design plans to the City to request a construction or electrical permit. There is generally no leniency with respect to building codes, plans that don't comply with code are not granted permits.

⁵ It is worthwhile to note that 'energy systems' within the office Tenant environment extend largely to just lighting, networking, and appliances vs. the retail Tenant environment that will include more detailed energy systems, depending upon the nature of the retailer (restaurant, grocery, drycleaner, etc.).



Broker

The broker represents the tenant in seeking space and negotiating with the landlord to come to an agreement on the terms and conditions of the lease. Smaller landlords will contract out their leasing services to a broker. In this scenario, the broker represents the owner's interests. However, regardless of whether the broker represents the tenant or the landlord, the broker is a salesperson, first and foremost, and therefore primarily motivated by commission (and perhaps repeat business).

The broker's level of influence on the tenant is generally limited to their choice of space and the terms and conditions of the lease. With the exception of industrial brokers, rarely does a broker provide anything more than cursory advice on systems or space design. Because of the specialty use of industrial environments, such as manufacturing and processing plants that would require high energy output, industrial brokers tend to have more knowledge about energy management than office or retail brokers.

BARRIERS TO IMPLEMENTATION

The barriers to engagement of the industry and eventual implementation of energy retrofits and low carbon solutions are not insurmountable. The commercial real estate industry is already largely engaged and very good at self-monitoring and continuously raising the bar for best practices – which in combination with regulation, compels the weak links to conform to compete for tenants.

Further influence and engagement of the industry entails a few barriers, the majority of which are stakeholder specific as have been outlined throughout this report. Generally speaking, each stakeholder group is facing competing priorities coupled with long-standing information and knowledge gaps that negatively influence further their engagement and resulting implementation.

The table below details these stakeholder-specific competing priorities as well as the key drivers/influences of these stakeholders and the barriers or impediments they are each contending with:



Profile of stakeholder specific barriers			
Group	Key priorities	Key influences	Impediments to engagement or change
Owner	 Return on investment Market competitiveness 	 Board of directors Economy / market influences Tenant demand 	 Short-term investments Some are driven by regulation not innovation
Landlord	 Profit margin High rental rates / low vacancy ESG (for sophisticated landlords) 	 Investment profile Market competitiveness Municipal building codes 	 Owner's investment criteria Information gaps: less sophisticated lacking training; more sophisticated have gaps from boardroom table to tool belt Lack of accountability Slow to change Dependency on other professionals for innovations
Tenant	 Location Low base rent Efficient layouts Comfortable environment Building amenities 	 Designer Building specifications Corporate policies and priorities Municipal building codes 	 Lack of knowledge Access to information Dependency upon contractors
Consultant/ Contractor/ Designer	 Profit margin Aesthetics Satisfying the client	 Market competition Product suppliers Municipal building codes 	 Tendency to over utilize favourite suppliers Often aligned with certain programs or technologies Sometimes being paid or incentivized by a third party Chasing LEED points instead of focus on practicality or tenant specific design needs



Profile of stakeholder specific barriers			
Group	Key priorities	Key influences	Impediments to engagement or change
Broker	• "doing the deal"	Market competitivenessCorporate culture	 No financial incentive Not considered a necessary job competency

CONCLUSION

The commercial real estate industry has many moving parts, with a variety of ownership models and asset types. While the differences may be vast, the one commonality is that commercial buildings are an investment vehicle for the owner. Whether long-term or short-term, the ownership expects to see growth in the value of their investment.

The occupiers of these buildings, the tenants, expect their buildings to function efficiently and to suit their varying needs, but alike the owner, they also desire to turn a profit and certainly don't desire this profit being hindered by hefty rents and building operating expenses. While tenants are becoming more knowledgeable about ESG and how it applies to their leased premises, many are still not making it a priority in their decision making.

The British Columbia CRE industry is evolving quickly in an effort to meet investors' growing ESG interest and impending GHG regulations across many regions. There are certainly leaders and laggards within the market that each face a variety of obstacles in reaching their next goal. Government and utilities' energy management and decarbonization assistance programs are also ramping up quickly. Understanding the market players, their roles and responsibilities, their motivations and their influences, will hopefully aid policy and program makers in creating programs that better support the industry, and in particular – those that truly need the assistance.