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High performance lease criteria and sample lease language

December 6th, 2016

Introduction

Purpose: The following draft lease provisions were created as recommendations to the U.S. commercial office leasing market by an independent advisory group to the U.S. General Services Administration (GSA). The High Performance Leasing Task Group (hereafter, the Task Group) of GSA's Green Building Advisory Committee (hereafter, the Committee) proposed these as simple and actionable criteria to aid GSA in meeting the mandate of the Energy Efficiency Improvement Act of 2015 to develop voluntary "model commercial leasing provisions." The full Committee voted to accept this proposal and present it to GSA, at the Committee's November 17, 2016 meeting. These criteria are intended to advance effective high performance building practices among commercial office landlords as well as public, private and non-governmental organization sector tenants. *The ultimate goal of these provisions is to increase the supply of high performance office buildings for GSA and other tenants to lease.*

These provisions are strictly voluntary and their feasibility will vary widely depending on local markets, the nature and terms of the landlord-tenant relationship, the tenancy profile (e.g., a single dominant tenant vs. multiple smaller tenants), the willingness and financial capability of the parties in question to participate, and many other factors. Therefore, the three tiers of performance provide menus of provisions from which users may pick and choose as appropriate, rather than unified programs of action.

How to use these criteria: The matrix below proposes three tiers of sustainability performance – Simple, Standard and Innovative – followed by sample high performance lease language adapted from existing high performance leases. The criteria have been developed for leased, commercial offices but can be applied to other use types. The Simple criteria are intended to be the most widely attainable, applicable to small and partial floor leases and tertiary markets in all classes of buildings. The Standard criteria are envisioned to apply to most common leases in major and secondary markets in Class A and B buildings. The Innovative criteria, by contrast, are aimed at tenants and landlords seeking to go well beyond standard practice and establish themselves as among the most innovative and advanced players in the marketplace.

This matrix of provisions was not designed to be a complicated rating system but rather to identify options at different levels of stringency from which users are free to pick and choose. Considering the wide variety of leasing arrangements with different constraints, it is challenging to create a simple, broadly applicable set of criteria uncomplicated by numerous variations and exclusions. Nor does the Committee recommend creation of a points-based system that would require a significant infrastructure to administer. The goal here rather is to provide simple and actionable guidance to the commercial marketplace.

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An important choice for both tenant and landlord to consider is whether to apply some of these standards to be aspirational – often represented by lease phrases such as “good faith efforts” or “reasonable efforts” or whether the more traditional formulation of “shall” is used – meaning that performance is required, as is the case with most lease provisions and where the consequences of nonperformance are ultimately default and the right to exercise remedies.

Achieving these criteria, particularly at the more advanced levels, is likely to require reinventing relationships and patterns of communications among landlords and tenants. Clauses will need to clearly assign responsibilities and costs, with periodic discussions recommended to revisit progress and address any major challenges encountered. The Shared Savings and Commitment sections below are intended to assist the parties in identifying the appropriate provisions and language for the effective allocation of responsibilities.

Value and Cost-Effectiveness: There are many economic, environmental and social benefits to high performance leasing practices. These benefits, briefly summarized below, can provide long-term value to both landlords and tenants. The disposition of these benefits will depend on the structure of the lease and parties’ ability to monitor results.¹ The highest priority criteria based on their benefits have been highlighted in green within the matrix.

Potential Benefits to Tenants	Potential Benefits to Landlords
<ul style="list-style-type: none"> • Lower energy, water and operating costs • Providing a healthier, more productive workplace • Supporting corporate sustainability goals • Demonstrating environmental responsibility to employees and the community 	<ul style="list-style-type: none"> • Increasing transparency, building trust with tenants, reducing turnover • Reducing vacancy • Faster lease-up • Enhancing marketability of the building • Lower operating costs which can improve building financial performance/Net Operating Income (NOI)

¹ For example, see U.S. Department of Energy Better Buildings, *Promoting Solar PV on Leased Buildings Guide*, <http://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Promoting-Solar-PV-on-Leased-Buildings-Guide-.pdf> and NRDC, *Energy Efficiency Lease Guidance* <https://www.nrdc.org/sites/default/files/CMI-FS-Energy.pdf>

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Without the resources to conduct significant cost-benefit research on these provisions, the Task Group sought input from numerous sources and held extensive discussions on which provisions are likely to be more or less achievable or affordable. The Committee recommends that if GSA does adopt provisions along these lines, more input and information be gathered both in the development process and as an ongoing effort after such provisions have been released.

Adoption and Implementation: The sample lease clauses at the end of this document provide examples of how the concepts presented here may be folded into lease documents. However, actual lease provisions will need to be adapted and legally reviewed for each particular situation. In practice, some of these clauses may be of more interest to tenants and some may be of more interest to landlords.

There are several ways in which this material may be used in the field:

- Integrating these concepts directly into the relevant provisions of a lease document. If these clauses are integrated from the start into the base lease form, the way they fit in with other clauses will be clearer and therefore will be less likely to draw objection and to be stricken in their entirety.
- Tenants or landlords can create “lease riders” and present them to their counterparts during lease drafting or negotiations. Real world experience has indicated, however, that high performance provisions presented in that manner are often less effective, because they may be discarded by the receiving party and/or may be inconsistent with corresponding provisions in the main body of the lease form being used.
- Tenants in the marketplace can use the ideas presented here to create a checklist for evaluating targeted buildings. Such a checklist could be used as an internal policy tool or be incorporated into a formal request for proposals presented to prospective landlords. As noted previously, this enables the prospective tenants to hone in on sustainability issues that will directly affect their use and enjoyment of the space and its operating costs.
- Tenants or landlords could modify and enhance the “building rules & regulations”, a document generally found as an exhibit to most commercial leases to identify and clarify general high performance operating practices and “rules”. While this strategy carries some of the same risks as a lease rider, most real estate professionals are familiar with and comfortable with the concept of “building rules & regulations” and as a result enhancements will appear more normative and organic. In

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addition, most commercial leases provide that the building rules and regulations may be updated over the term of the lease, allowing the document to remain relevant as standards and practices evolve over time.

For situations involving new construction or major re-tenanting, more sophisticated resources may be desired. Links to a number of such resources have been provided under “Additional Sources” below.

The Committee understands that changes in leasing practices are often slow and incremental. It is difficult to break down the barriers of decades of leasing experience and introduce high performance building practices as a new topic to many. But by providing these often mutually beneficial ideas and lease clauses in a neutral and non-threatening way, it is hoped that both landlords and tenants will be able to understand and benefit from them.

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High Performance Lease Concepts

Criteria highlighted in green are top priority measures – those generally having the biggest benefit and impact.

		Simple Lease		Standard Lease		Innovative Lease
		Partial floor leases or tertiary markets, Class A, B and C		Most common leases, major and secondary markets, Class A and B, full floor tenants.		Highly ambitious tenants/landlords, innovative applications
Shared savings and commitments	S1a	Conduct regular meetings between landlords and tenants to discuss efficiency opportunities, third party certification and annual reporting.	S1b	Include clause for landlord cost recovery for efficiency related capital improvements.	S1c	Identify and implement all efficiency measures deemed cost effective (with “cost-effective” being defined as a payback period within the tenant’s current lease term or some other period of time that is mutually acceptable). ²

		Simple Lease		Standard Lease		Innovative Lease
Energy usage and greenhouse gas emissions management	E1a	Achieve and maintain during the lease term ENERGY STAR labeling for the building (a score of 75 or higher)	E1b	Comply with E1a and provide periodic recommissioning thereafter (e.g., every 3 years)	E1c	Aspire to net zero energy
	E2a	Install Lighting Power Density (LPD) to comply with ASHRAE 90.1 2016 standard ³ , at a minimum	E2b	Comply with E2a and add lighting controls to adjust to occupancy/vacancy and take full advantage of daylight.	E2c	n/a

² The benefactor of the energy cost savings as a result of implemented measures identified by the retro-commissioning study shall incur the expenses of the retro-commissioning study and the costs of the implemented measures.

³ See ASHRAE Standard 90.1 at <https://www.ashrae.org/resources-publications/bookstore/standard-90-1>

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		Simple Lease		Standard Lease		Innovative Lease
	E3a	Disclose whole building or tenant space energy use ⁴ (either actual or estimated).	E3b	Comply with E3a <u>and</u> sub meter electricity use per tenant	E3c	Comply with E3a & b <u>and</u> sub meter energy use for major energy end uses (e.g. heating, cooling, lighting, plug loads).
	E4a	Use ENERGY STAR certified equipment for all copiers and printers, with space heaters banned.	E4b	Comply with E4a <u>and</u> set and maintain automatic controls (night setbacks, sleep modes) for office equipment	E4c	Comply with E4a and b, <u>and</u> provide ENERGY STAR certified equipment for all central HVAC equipment, computers, monitors, displays and appliances
	E5a	Tenant plug load demand as required in the lease is limited to 3.5 watts/SF (i.e. the wattage available for equipment that is literally plugged into the electrical sockets) ⁵	E5b	Tenant plug load demand as required in the lease is limited to 2.5 watts/SF	E5c	Tenant plug load demand as required in the lease is limited to 1.5 watts/SF
	E6a	n/a	E6b	Green power purchasing or Renewable Energy Credits (RECs) for 50% of tenant or whole building energy use	E6c	Green power purchasing, carbon offsets or Renewable Energy Credits (RECs) to offset 100% of tenant or whole building energy use

		Simple Lease		Standard Lease		Innovative Lease
Water usage and	W1a	Use WaterSense fixtures	W1b	Comply with W1a <u>and</u> use	W1c	Comply with W1a and b.

⁴ Provide energy use information for all energy sources including electricity, natural gas, oil, steam, propane and district heating/cooling. Energy use information should flow both from tenant to landlord as well as from landlord to tenant.

⁵ Most commercial office buildings built since the 1970s offer 5-8 watts/sf of electrical capacity. However, electrical surveys of usage by equipment used by tenants routinely shows “plug load” usage of only 1 watt/sf or less. Plug and process loads often accounts for > 30% of the electricity consumption in office buildings. Therefore, buildings are vastly overbuilt in their electrical capacity and, correspondingly, vastly overbuilt in their cooling capacity to handle the heat generated by a high electrical load. This drives up the cost of the building and thus the base rent rate. Additional resources: http://newbuildings.org/wp-content/uploads/2015/11/PlugLoadMetricsReportingGuide_CaseStudy1.pdf

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		Simple Lease		Standard Lease		Innovative Lease
landscape management		for common area fixtures (or verify flow rates comply)		WaterSense fixtures for tenant space fixtures (or verify flow rates comply)		
	W2a	Share whole building or tenant space water use (either actual or estimated) ⁶	W2b	Comply with W2a <u>and</u> separately sub-meter indoor from outdoor water use	W2c	Comply with W2a and b.
	W3a	Use climate appropriate native and/or adapted landscape vegetation (where appropriate)	W3b	Comply with W3a <u>and</u> , where irrigation is provided, use smart irrigation controller systems, with hydrozoning of areas of plants designated to be irrigated	W3c	Comply with W3a and b, <u>and</u> eliminate potable water use for irrigation

		Simple Lease		Standard Lease		Innovative Lease
Indoor environmental quality management, and operations:	Q1a	Use low-emitting building products that are third party certified. Tenant/landlord to provide product content information to the other party.	Q1b	Comply with Q1a and use 50% low-emitting furniture that is third party certified. Tenant/landlord to provide product content information to the other party.	Q1c	Comply with Q1a and use 95% low-emitting furniture that is third party certified. Tenant/landlord to provide product content information to the other party.
	Q2a	Provide individually controlled, efficient task lighting (i.e. LED).	Q2b	Comply with Q2a and provide adequate spaces for occupant use that provide acoustical control and privacy	Q2c	Comply with Q2a and b and provide individual thermal comfort control.

⁶ Water use information should flow both from tenant to landlord as well as from landlord to tenant.

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		Simple Lease		Standard Lease		Innovative Lease
	Q3a	Regularly scheduled filter replacement (min. 4x/yr); minimum of MERV ⁷ 8 filters. ⁸	Q3b	Regularly scheduled filter replacement (min. 2x/yr); minimum of MERV 11 particulate filters.	Q3c	Comply with Q3a and b, <u>and</u> increase the outdoor air intake rate at least 10% above that required by ASHRAE 62.1.
	Q4a	Implement a green cleaning program and include training for cleaning/facilities staff	Q4b	Comply with Q4a	Q4c	Comply with Q4a <u>and</u> include product content information.
	Q5a	Implement a waste management plan, including recycling. Include training for occupants and cleaning/facilities staff	Q5b	Comply with Q4b <u>and</u> implement a periodic electronics recycling event/plan	Q54c	Comply with Q5a & b <u>and</u> implement a waste management plan including composting
	Q6a	Develop an Integrated Pest Management Plan	Q5b	Comply with Q5a	Q5c	Comply with Q5a

		Simple Lease		Standard Lease		Innovative Lease
Transportation	T1a	Landlord provides a building-wide transportation management plan (TMP)	T1b	Comply with T1a and landlord and tenant work together to implement at least one alternative transportation solution (see Sample Clauses below for options)	T1c	Comply with T1a and landlord and tenant work together to implement three alternative transportation solutions (see Sample Clauses below for options)

⁷ MERV = Minimum Efficiency Reporting Value

⁸ Use ASHRAE Standard 170 for healthcare settings.

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High Performance Lease Sample Clauses

The following sample clauses, gathered from expert input and a variety of publicly available sources including those listed in Additional Sources at the end of this document, provide some examples of specific high performance building lease language designed to carry out the criteria listed above. The lease clauses below generally map to the criteria included above, though there may be small variations since they were gathered from a variety of sources. Each of these clauses is written in the traditional lease manner of imposing an affirmative obligation to do (or not do) something. However, as noted above, a lease clause may be made simply aspirational by limiting it to require only (in ascending order of obligation), “good faith efforts,” “reasonable efforts” or “diligent efforts” to perform. ***Any actual lease language to be used should be developed by or adapted to the particular needs of the parties involved, with full legal review and input.***

Shared savings and commitments

S1a: Conduct regular meetings between landlords and tenants to discuss energy efficiency opportunities and annual reporting⁹

Landlord and Tenant shall meet annually and review energy and water use data, recommissioning outputs and recommendations and the effectiveness of efficiency programs and mutually establish an energy optimization plan, including energy management and cost effective savings opportunities for the building and the leased premises. Annual reports shall be produced summarizing both tenant and landlord efficiency efforts. Tenant and landlord shall work together to attain third party green building certifications.

S1b: Include clause for landlord cost recovery for efficiency-related capital improvements¹⁰

Landlord may include the costs of certain capital improvements [intended to][that] improve energy efficiency in operating expenses. The amount passed through by Landlord to Tenant in any one year shall not exceed the prorated capital cost of that improvement over the expected life cycle term of that improvement [and shall not exceed in any year the amount of operating expenses actually saved by that improvement]. Interest/the cost of capital can be included.

Another potential structure derived from New York City’s Energy Aligned Lease template:¹¹

⁹ Background and comprehensive lease language is available at: <https://www.nrdc.org/sites/default/files/CMI-FS-Energy.pdf>

¹⁰ The concept of passing through to tenants as an operating expense the capital cost of improvements that save operating expenses is well-established in commercial leasing. But its implementation is highly negotiable. i.e. the capital cost could be repaid to the landlord over the projected payback period.

¹¹ Background and comprehensive lease language is available on energy-aligned leases at:

http://www.nyc.gov/html/gbee/downloads/pdf/eac_&_overview.pdf. Consider allowing cost recovery to begin the first month following completion of

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Landlord may include the costs of certain Capital Improvements in Operating Expenses pursuant to Section 1.1(a)(v)(16) in accordance with the following:

- (i) In the case of any capital improvement that an independent engineer experienced in energy efficiency matters and selected by Landlord certifies in writing will, subject to reasonable assumptions and qualifications, reduce the building's consumption of electricity, oil, natural gas, steam, water or other utilities, and notwithstanding anything to the contrary elsewhere in this lease:
 - a. The costs of such capital improvement shall be deemed reduced by the amount of any government, utility or other incentives for energy efficiency improvements actually received by Landlord to defray the costs of such capital improvement, and shall further be reduced by any energy efficiency tax credits or similar energy-efficiency-based tax incentives actually accruing to Landlord as a result of such capital improvement.
 - b. For the purposes of this Section, "simple payback period" means the length of time (expressed in months) obtained by dividing (x) the aggregate costs of any such capital improvement, by (y) the projected annual savings. By way of example: If the aggregate costs of such capital improvement are \$2,000,000 and the projected annual savings are \$500,000, then the simple payback period for such capital improvement is forty-eight (48) months.
 - c. Commencing with the first full [calendar][lease] year following the [calendar][lease] year in which such capital improvement is completed and placed in service, and continuing for the duration of the adjusted payback period (as hereinafter defined), Landlord may include in operating expenses a portion of the aggregate costs of such capital improvement equivalent to eighty percent (80%) of the projected annual savings so that the aggregate costs of such capital improvement will be fully amortized over one hundred twenty-five percent (125%) of the simple payback period (such 125% period of time being the "adjusted payback period"). By way of example: If the aggregate costs of such capital improvement are \$2,000,000, the projected annual savings are \$500,000 and the simple payback period for such capital improvement is therefore forty-eight (48) months, then Landlord may include \$400,000 of the aggregate costs of such capital improvement (i.e., an amount equivalent to 80% of the projected annual savings) in operating expenses payable by Tenant for five consecutive [calendar][lease] years (i.e. five years equals sixty (60) months, which is 125% of the 48-month simple payback period in this example).

S1c: Identify and implement all efficiency measures deemed cost effective

improvement measure so the landlord does not have to wait until the beginning of the next calendar year to begin recovering the cost of the improvement through operating expenses.

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Landlord shall perform a retro-commissioning study of base building systems that consume energy or water every [3] [5] year(s). Tenant shall perform a retro-commissioning study of the equipment (including plug loads) installed by it in the leased premises every [3] [5] year(s).¹² Within [2] [3] months after the conclusion of their respective retro-commissioning studies, each party shall start to implement recommendations identified by the retro-commissioning study that are deemed cost effective. For purposes of this Section, the term "cost effective" means an improvement that will result in substantial operational cost savings by reducing electricity or fossil fuel consumption, water, or other utility costs and where such operational cost saving over the then-remaining term of this lease (or some other period of time that is mutually acceptable) is sufficient to pay the incremental additional costs of making the improvements.

Alternate: Perform commissioning of energy systems within the space (including, without limitation, lighting, HVAC, electrical and plug loads) to ensure design optimizes performance and systems are constructed and function per efficient design.

Energy usage and greenhouse gas emissions management

E1a: Achieve and maintain ENERGY STAR labeling for the building

The building must be ENERGY STAR labeled by achieving an ENERGY STAR rating of 75 and ENERGY STAR certification must be maintained for the duration of the lease term:

- In buildings where an ENERGY STAR rating cannot be obtained (i.e. because the building is too new to have a sufficient operating history to generate the requisite data or because the building's vacancy exceeds the vacancy allowed for an ENERGY STAR label), a lease may include the provision that the landlord has one year after the building reaches the requisite threshold in operating history and/or occupancy to achieve the ENERGY STAR label. In general, any building over 5,000 gsf with a year of utility bills can get an ENERGY STAR score ([exceptions and details](#)).
- If an ENERGY STAR rating is not available for the reasons identified above, the landlord must show it has implemented all cost-effective energy upgrades.
- Tenant shall collaborate with landlord to incorporate efficiency into energy-using equipment, e.g., by using ENERGY STAR-labeled equipment, and optimize its operating schedules, e.g., by not operating during non-standard business hours without paying the incremental cost.

¹² Additional resources on recommissioning can be found at http://www.peci.org/sites/default/files/epaguide_0.pdf

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Alternate: In the initial lease, where no previous energy use data is available, the parties shall construct an estimate of potential future energy usage by the tenant using such principles and data as can be agreed upon. Upon the accrual of a sufficient number of years of energy use data for the structure, the Parties/Landlord shall themselves or through a third party conduct an overall energy assessment based on the usage history to determine overall usage rates, trends, time sensitive of usage patterns (if metered to that level), and other relevant data. The Parties will then meet to review the usage data and identify patterns and trends, and compare the results to the original projected usage projections. The parties will then discuss any lease modifications or other energy related modifications/changes to the premises that may be suggested from or supported by the data, towards an overall review of the level of energy and cost savings relevant to the original lease rates for the property.

E1b: Provide periodic recommissioning (every 3 years)

Landlord shall incorporate recommissioning requirements to verify that the installation and performance of energy consuming systems meet project requirements. Recommissioning shall occur every 3 years at a minimum. Recommissioning shall comply with ASHRAE Guideline 0.2 (for initial commissioning and retro-commissioning of base building systems) or ASHRAE Guideline 202 (for new commissioning of tenant fit out equipment). Recommissioning shall address at a minimum: heating, ventilating, air conditioning and refrigeration (HVAC&R) systems and associated controls, lighting and lighting controls, and domestic hot water systems. Commissioning and a written report should be provided triennially. Tenant shall triennially commission the energy using equipment in its premises, including plug loads. Opportunities for efficiency shall be coordinated between both parties.

E1c: Aspire to net zero energy

The building shall [achieve][aspire to] net zero energy, as defined by the U.S. Department of Energy¹³ as of the date of this lease, within one year after occupancy and shall maintain that status for the remainder of the lease term.¹⁴

Alternate: The Parties agree in the original lease to incorporate all energy saving measures necessary to achieve net zero energy, with the understanding that net zero may not be achievable initially. On that basis, the parties agree to periodically (every x years) assess and review the incremental progress/movement towards net zero energy use as measured by the actual usage numbers. The Parties agree, in good faith, to discuss future potential lease amendments and distribution/assignment of cost savings, along with possible lease cost adjustments, based on the resulting information.

¹³ U.S. Department of Energy (2015), *A Common Definition for Zero Energy Buildings*, <http://energy.gov/eere/buildings/articles/doe-releases-common-definition-zero-energy-buildings-campus-and>

¹⁴ A landlord or a tenant will probably require that the definition of net zero energy, an ASHRAE standard, a LEED® certification, a Green Globes® certification, or any other standard, be a definition known to exist on the date of the lease or some other fixed date.

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E2a: Install Lighting Power Density to comply with ASHRAE 90.1 2016 at a minimum

The building shall comply with lighting power densities at or below ASHRAE 90.1 2016, as provided by the table below.

Space type (using building area calculation method)	Maximum lighting power density (Watts/SF)
Office	0.79
Convention Center	0.78
Courthouse	0.90
Dining: Cafeteria	0.79
Library	0.78

(For additional space types or calculation compliance paths and exceptions, please refer directly to the ASHRAE 90.1 2016 standard.)

E2b: Add lighting controls to adjust to occupancy/vacancy and daylight levels

Daylight dimming controls shall be installed in atriums or within 15 feet of windows and skylights where daylight can contribute to energy savings. Daylight dimming controls shall be either integral to the fixtures or ceiling mounted and shall maintain required lighting levels in work spaces. Lighting controls (including vacancy sensors¹⁵ and scheduling controls) shall be provided for all lighting equipment.

Alternate: Implement lighting controls, including daylight dimming controls for at least 50% of lighting load and vacancy sensors for at least 75% of connected lighting load. This measure is to be implemented if the simple payback period is demonstrated to be five years or less based on projected savings and estimated cost subject to Building management team's review. Design and build to optimize daylight and views for occupants, which may be achieved through a design that includes interior rather than perimeter offices, or perimeter offices with glass fronts if perimeter offices are a design requirement.

Alternate: The Tenant shall initiate a review of lighting needs in all areas of the workplace [x] times within the year to accumulate lighting measurement data to compare with usage patterns. In conjunction with this effort, the specified energy rates for various

¹⁵ Vacancy Sensors require someone to manually turn ON the lights when required. The sensor will then automatically turn lights OFF when no presence is detected for a specified amount of time. These sensors ensure the highest level of energy savings since the lights will never automatically turn ON.

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areas will be reviewed and compared to the data to attempt to identify patterns and potential adjustment to lighting controls and sensors. (Dependent on metered/measured power usage within areas.)

E3a: Share whole building or tenant space energy use (either actual or estimated)

Landlord shall provide reports for the amount of electricity, natural gas and fuel oil (where applicable) consumed at the building broken down by utility type, energy unit usage (e.g., kWh, therms or ccf, gallons), cost per month for each energy source for the duration of the Lease and the Energy Use Intensity (EUI measured in kBtu/SF/YR). Unless disclosure is prohibited by state or local law or if data is not available or is confidential, estimated energy use per tenant may be provided.¹⁶ Such reports shall be provided within ninety (90) days after the end of each [calendar quarter][June 30 and December 31][calendar year].¹⁷ Where applicable, Landlord shall provide read-only access to tenant of the building's ENERGY STAR Portfolio Manager account and vice versa. To the extent Tenant obtains electricity independently of the building, Tenant shall give Landlord access to Tenant's data on energy use for inclusion in Landlord's annual reports, ENERGY STAR annual rating and similar purposes.¹⁸

E3b: Submeter electricity use per tenant

Landlord shall install an electric meter/submeters to service the leased premises to measure the consumption of electricity in the leased premises. Where Tenant does not occupy the entire building or an entire floor, the partial floor or leased premises shall be separately metered.¹⁹

E3c: Submetered energy use for major energy end uses (e.g. heating, cooling, lighting, plug loads) per tenant

Landlord shall install an electric meter and submeters to service the leased premises to measure the consumption of energy (both electricity and natural gas) broken out by each major energy end use as well as broken out by tenant. Actual or estimated breakdowns may be used, depending on the granularity of the data provided. Energy end uses shall include, at a minimum heating, cooling, lighting, fans, pumps, plug loads, domestic hot water and elevators (where applicable).

¹⁶ For additional guidance from GSA on reporting, refer to: U.S. General Services Administration, *Utility Consumption Reporting*, www.gsa.gov/ucr

¹⁷ Material included in annual reports to tenants should include both energy and water use data, data on the recycling program, whether the build-out materials and systems installed elsewhere in the building within the particular reporting period comply with the requirements of this particular lease, the degree to which other tenant spaces within the building are leased with similar provisions, sustainability achievements, certifications and awards won, violations received (and the corrective actions taken), etc.

¹⁸ Source: Building Owners & Managers Association International (2011), *Commercial Lease: Guide to Sustainable and Energy Efficient Leasing for High-Performance Buildings*, https://store.boma.org/shopping_product_detail.asp?pid=52168 .

¹⁹ A metering requirement invariably generates a lengthy negotiation between the landlord and the tenant over which of them will pay for the meter. Often, the cost of the meter is negligible and is exceeded by the time and legal fees debating who should pay for the meter.

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E4a: Use ENERGY STAR equipment for all imaging equipment (i.e. copiers and printers). Space heaters banned.

All imaging equipment (i.e. copiers and printers) used by Tenant shall be ENERGY STAR Certified and energy savings modes must be activated. Space heaters are not permitted in the leased premises.

E4b: Maintain automatic controls (night setbacks, sleep modes) for office equipment²⁰

Tenant shall provide sensor or timer controls for all of its major office equipment, including personal computers and copiers/printers.

E4c: Use ENERGY STAR equipment for all central HVAC equipment, computers, monitors, displays and appliances.

All Tenant equipment and appliances shall be ENERGY STAR certified and energy savings modes must be activated. Such equipment shall include, but is not limited to, computers, external displays, imaging equipment, phones, enterprise servers, network equipment, data center storage units, refrigerators, freezers, dishwashers, vending machines and coffee makers. All central HVAC units shall be ENERGY STAR certified and (where possible) utilize variable speed compressors, fans, and pumps that are appropriately sized for the heating and cooling loads.

E4c/E5a, b, c – Combined Language

Reduce plug loads by specifying equipment and appliances (including, without limitation, computers, monitors, printers, refrigerators, dishwashers, water coolers, copiers, and A/V and IT equipment) that meet or exceed ENERGY STAR requirements.

E5a, b and c: Plug load demand

Installed electrical wiring and facilities for plug load equipment including personal computers and other standard office equipment shall be limited to [3.5/2.5/1.5] watts per usable square foot.

E6b and c: Green power purchasing for Renewable Energy Credits (RECs)

At least [50/100] percent of [the building's][Tenant's] electricity shall be purchased from renewable sources. Where direct green power purchasing is not available from the utility, utilize Renewable Energy Credits (RECs) or carbon offsets. For the purposes of this lease, "renewable sources" [shall][shall not] include nuclear-generated power.

²⁰ As noted previously, plug loads often account for more than 30% of a building's electrical demand. Reducing plug load can therefore have a substantial effect on electrical consumption.

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Water usage and landscape management

W1a, W1b: Use WaterSense compliant fixtures (or verify flow rates comply)

For new installations and whenever plumbing fixtures are being replaced, all [common space] [tenant space] fixtures must conform to EPA WaterSense or fixtures with equivalent flush volumes must be utilized.

Table 1: WaterSense flow rates

Fixture	Maximum flow rate per WaterSense ²¹
Showerhead	2.0 gallons per minute
Toilets ²²	1.28 gallons per flush
Bathroom sink faucets	1.5 gallons per minute
Urinals	0.5 gallons per flush

W2a: Share whole building or tenant space water use (either actual or estimated)

Landlord shall provide regular [annual] [quarterly] reports for the amount of water consumed at the building and cost per month for the duration of this lease. If such data is not available or is confidential, estimated water use per tenant may be provided along with the basis for the estimate. Where applicable (i.e., ENERGY STAR certified buildings), Landlord shall enter water use and cost data into ENERGY STAR Portfolio Manager and provide read-only access to tenant of the building's Portfolio Manager account. Where applicable, the Tenant shall provide read-only access to Landlord of the building's Portfolio Manager account.

W2b: Submetering indoor from outdoor water use

Landlord shall separately submeter and track indoor water use for the tenants and common areas and outdoor water use. Landlord shall provide regular [annual] [quarterly] reports for the amount of water consumed at the building and cost per month for the duration of this lease. If such data is not available or is confidential, estimated water use per tenant may be provided along with the basis for the estimate.

²¹ U.S. Environmental Protection Agency, WaterSense, <https://www3.epa.gov/watersense/>

²² If tenant space is utilized for a healthcare setting, toilets are allowed to be 1.6 gallons per flush.

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W3a: Use climate appropriate, native and/or adapted landscape vegetation

Landlord shall landscape the site with plants that are either native or well-adapted to local growing conditions, as selected or approved by a landscape design professional.

W3b: Smart irrigation controller system

Landlord shall utilize irrigation technologies at the lowest rate required to keep plants healthy. Irrigation systems will be controlled by rain gauges or soil moisture sensors to eliminate unnecessary irrigation during or after rain events.

W3c: Eliminate potable water use for irrigation.

If any irrigation is necessary on site, the source shall be non-potable water.

Indoor environmental quality management and operations

Q1a/Q1b/Q1c: Use low-emitting building products, wet-applied products, and furniture that are third party certified. Building products, wet-applied products and furniture used in the build-out [of the leased premises] [of all tenant space in the building] shall meet or exceed the following emission standards and requirements. Product content information shall be submitted to the [tenant] [landlord].

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Building Products General Emissions Requirements

	Performance Criteria	Certifications and Labels that meet the Performance Criteria
Carpet & Hard Surface Flooring	CDPH/EHLB/Standard Method v1.1-2010 (CA Section 01350) for office exposure criteria	Green Label Plus
		FloorScore®
		NSF/ANSI Standard 140 Sustainability Assessment for Carpet
		NSF/ ANSI 332 Sustainability Assessment for Resilient Flooring
Composite Wood, Wood Structural Panel and Agrifiber Products	CDPH/EHLB/Standard Method v1.1-2010 (CA Section 01350) for office exposure criteria	CARB 2007 SCM
		CARB ULEF
		CARB exempt
Ceiling and Wall Systems (Ceiling & wall insulation, ACT, Tackable wall panels, gypsum board and wall coverings)	CDPH/EHLB/Standard Method v1.1-2010 (CA Section 01350) for office exposure criteria	NAF
		NSF/ANSI 342 Sustainability Assessment for Wall covering Products
Wet Applied products	CDPH/EHLB/Standard Method v1.1-2010	ANSI/UL 100-2012 Standard for Sustainability for Gypsum Boards and Panels
		SCS Indoor Advantage Gold

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		UL GREENGUARD Gold
		MAS Certified Green
Paints & Coatings	Green Seal Standard GS-11 or SCAQMD Rule 1113 or CARB 2007 SCM or CDPH/EHLB/Standard Method v1.1-2010 (CA Section 01350) for office exposure criteria	SCS Indoor Advantage Gold
		UL GREENGUARD Gold
		MAS Certified Green
Adhesives & Coatings	SCAQMD Rule 1168 or Green Seal Standard GS-36 (aerosols) or CDPH/EHLB/Standard Method v1.1-2010 (CA Section 01350) for office exposure criteria	SCS Indoor Advantage Gold
		UL GREENGUARD Gold
		MAS Certified Green
		FloorScore

Office Furniture Systems and Seating

General Emission Requirements	Applicable Certifications/Labels
ANSI/BIFMA M7.1-2011	SCS Indoor Advantage Gold
ANSI/BIFMA X7.1	UL GREENGUARD Certified
ANSI/BIFMA e3 Section 7.6.1 and/or 7.6.2	UL GREENGUARD Gold
	MAS Certified Green
	Intertek ETL Environmental VOC
	BIFMA Level

Q2a: Individual control of task lighting.

[Landlord] [Tenant][Landlord and Tenant] [Landlord and all tenants of the building] shall provide individual control of task lighting for all occupants within offices or workstations. Task lighting shall be energy efficient fixtures (e.g. LED).

Q2b: Acoustical control and privacy.

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[Landlord] [Tenant][Landlord and Tenant] [Landlord and all tenants of the building] shall provide spaces that include acoustical control and privacy for individual and/or shared use.

Q2c: Individual thermal comfort control.

[Landlord] [Tenant][Landlord and Tenant] [Landlord and all tenants of the building] shall provide individual control thermal comfort control at workstations and/or offices.

Q3a, Q3b: Regularly scheduled filter replacement and requirements

Air filtration shall be provided and maintained by Landlord with filters having a minimum efficiency rating as determined by the latest edition of ASHRAE Standard 52.2 or MERV [8][11], whichever is more stringent. Filters shall be replaced a minimum of [4][2] times per calendar year. For healthcare settings, filtration requirements ASHRAE Standard 170 shall be used.

Q3c: Outdoor air intake rate at least 10% above ASHRAE 62.1 or equivalent.

The outdoor air intake rate provided by Landlord will be at least 10% above ASHRAE Standard 62.1. For applicable healthcare facilities, the rate shall be increased relative to ASHRAE Standard 170.

Alternate: Monitor delivery of outside air to ensure indoor air quality and outdoor airflow compliance with ASHRAE Standard 62.1-2016 requirements.

Q4a and Q4b: Implement a green cleaning program and training

[Landlord][Tenant][Landlord and Tenant][Landlord and all tenants of the building] shall use only cleaning products (including general purpose cleaners, floor cleaners, hand soap, etc.) that meet, are equivalent to, or exceed the following emission standards and requirements. Product content information shall be submitted to the [tenant] [landlord].

Cleaning Products

Standard Requirements	Applicable Certifications/Labels
Green Seal Standard GS-42	UL ECOLOGO
	US EPA Design for the Environment (DfE)

The plan shall require the entity executing the cleaning/environmental services contract(s) and program to provide green cleaning program training to all cleaning/environmental services staff and/or contracted cleaning/environmental services company personnel

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(i.e., provide training to all new staff upon hire, updated training for new cleaning/environmental services contract providers and/or processes, and annual refresher course for all staff; contract or direct hire).

Q4c: Green cleaning program with product content information.

Landlord and Tenant shall submit product content information to the other party:

1. Product data sheets for all cleaning products to be used within the leased premises before each such product is used, including reference to Standard Requirements in Q4b.
2. MSDS or other equivalent documents upon request for cleaning products listed in this lease.
3. Annual certification that all staff have received green cleaning program training.

Q5a, b and c: Implement a waste management plan, including recycling.

Landlord and Tenant shall implement a waste management program in compliance with applicable law. In the event applicable law does not require a recycling program, Landlord shall implement a recycling program for the building, as agreed upon with Tenant for the tenant occupied space. The plan shall require the entity executing the waste management contract(s) and program to provide waste and recycling stream training to all cleaning and facilities/building staff and/or contracted waste management company personnel (i.e., provide training to all new staff upon hire, updated training for new waste management contract providers and/or processes, and annual refresher course for all staff; contract or direct hire). The waste management plan shall included recycling for [comingled recycling][electronics recycling][composting].

Alternate: Divert construction waste from landfills through recycling and donation programs. Include target recycling and diversion percentages in waste hauler contracts as well tracking by weight. Target at least 75% diversion.

Q6a: Develop an Integrated Pest Management Plan

Landlord shall control pests using Integrated Pest Management techniques, as specified in the GSA Environmental Management Integrated Pest Management Technique Guide (E402-1001).

Transportation

T1a, T1b and T1c: Transportation management plan including alternative transportation solution [s]

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Landlord will develop a Transportation Management Plan for the building to describe the various alternative mobility opportunities available to building occupants. Tenant and Landlord shall work together to implement [one][three] of the following provisions.²³

1. Tenant shall provide at least [\$x] [\$30] per month towards a transit pass or vanpool pass (or the full cost of a pass if it is less than \$30) to each employee who commutes using transit or a vanpool. This credit may also be used with an alternative mobility company to enable alternative modes (such as a credit with Uber/Lyft), especially during peak times or adverse weather.
2. Tenant shall institute a telework program that reduces the number of commuting trips employees make by at least 6 percent.
3. Tenant shall provide at least [\$X] [\$30] per month (in lieu of providing a parking spot) to each employee who leaves their car at home and commute another way.
4. Landlord shall provide bicycle storage (racks) in the building and showering/locker room facilities in proximity to the bicycle storage facility. Landlord shall operate, maintain and secure the bike storage facility and showering/locker room facilities in first-class condition. Tenant shall provide at least one bicycle available to its employees for use.
5. Landlord shall establish preferred parking programs for hybrid and alternative fuel vehicles (at a minimum of 3% of all parking stalls) in the building, and [install][study the feasibility of installing] electric car charging stations in the building for use by tenants and their visitors at no additional charge.
6. Landlord shall establish a preferred parking program in the building's parking facility for high occupancy vehicles (carpool or vanpool).
7. The costs for parking shall be charged/paid separately from each tenant's rent²⁴ and shall be charged on a uniform or near-uniform basis to all.
8. Tenant organization must also offer access to an Emergency Ride Home program

²³ Additional resources, tools and information available from Best Workplaces for Commuters, <http://www.bestworkplaces.org>

²⁴ It may not be possible for all landlords to do this. For example, Real Estate Investment Trust (REIT) landlords may have issues with unrelated business income and therefore prefer to bundle parking charges into the rent.

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Materials Selection Resources

When selecting sustainable materials, use the following guidance for product declarations and certifications.

Type III Industry-wide and Product Specific Environmental Product Declaration (EPD) Resources

Manufacturers have completed both industry-wide and product specific **Environmental Product Declarations (EPDs)** that include transparency information and evaluate products from a life cycle perspective. EPDs are based upon Product Category Rules (PCRs), criteria that are agreed upon by stakeholders for a product type when developing EPDs.

1. Program Operators and Product Category Rules: <http://programoperators.org/>
2. Environmental Product Declarations (EPDs) resources:
 - a. International EPD® System: <http://www.environdec.com/>
 - b. SCS Global Services: <https://www.scsglobalservices.com/environmental-product-declarations>
 - c. UL Environment: <http://industries.ul.com/environment/certificationvalidation-marks/environmental-product-declarations>
 - d. NSF: <http://www.nsf.org/services/by-industry/sustainability-environment/product-transparency-reports/environmental-product-declaration/>
 - e. Sustainable Minds: <http://www.sustainableminds.com/transparency-report-program>

Third Party Certified Multi-attribute Product Standards & Certifications

Many interior product manufacturers have completed third party certifications based upon multiple attribute standards, which includes looking at products from a life cycle perspective. For example, areas of assessment used for resilient flooring products include Product Design, Product Manufacturing, Long-Term Value, End of Life Management, Corporate Governance, and Innovation. Standards are used for compliance and third party evaluation for certification to be awarded. The following table includes product categories, the name of the Multi-attribute Product Standard used for Certification, and a resource link to standards and certified products.

Product Category	Product Standard	Resource Link to Standard and Certified Product Listing(s)
Natural Dimension Stone	NSC 373-2013 Sustainability Assessment for Natural Dimension Stone	http://naturalstonecouncil.org/education-training/nsc-initiatives/dimensional-stone-standard/
Carpet	NSF/ANSI 140-2013 Sustainability Assessment for Carpet	http://www.carpet-rug.org/nsfansi-140-standard.html
Resilient Floor Covering	NSF/ANSI 332-2012 Sustainability Assessment for Resilient Floor Coverings	http://rfci.com/about-us/ansi-nsf332/

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Commercial Furnishings Fabric (fiber based)	NSF/ANSI 336-2011 Sustainability Assessment for Commercial Furnishings Fabric	http://www.contracttextiles.org/learn/sustainability-guideline
Wallcovering	NSF/ANSI 342-2012 Sustainability Assessment for Wallcoverings	http://www.wallcoverings.org/?page=NSF342Info
Single Ply Roofing	NSF/ANSI347-2012 Sustainability Assessment for Single Ply Roofing Membranes	http://www.nsf.org/services/by-industry/sustainability-environment/sustainability-standards-protocols/single-ply-roofing-membranes
Ceramic Tiles, Glass Tiles and Tile Installation Materials	ANSI A138.1 Green Squared – American National Standard Specifications for Sustainable Ceramic Tiles, Glass Tiles, and Tile Installation Materials	http://greensquaredcertified.com/about-the-standard.html
Gypsum Boards and Panels	UL 100-2012 Standard for Sustainability for Gypsum Boards and Panels	http://ulstandards.ul.com/standard/?id=100_1
Door Leafs	UL 102-2012 Standard for Sustainability for Door Leafs	http://ulstandards.ul.com/standard/?id=102_1

Sustainable Wood Certification

For evaluating the chain of custody of wood and wood containing products, the following provides resources for the criteria utilized for certifying sustainable wood and available certifications based upon these criteria.

1. Wood certification resources:

- a. Forest Stewardship Council (FSC): <https://us.fsc.org/en-us>
- b. Sustainable Forestry Initiative, Inc. (SFI): <http://www.sfiprogram.org/>
- c. American Tree Farm System (ATFS): <https://www.treefarmssystem.org/>
- d. Canadian Standards Association Sustainable Forestry Management (CSA): <http://www.csasfmforests.ca/>
- e. Programme for the Endorsement of Forest Certification (PEFC): <http://www.pefc.org/>

Building Service Life

In addition to the certification of products, the development of a building service life plan that includes cycle renovations and maintenance schedules assists with communicating and completion of timely regular maintenance that promotes sustainable operation of the building and tenant space.

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Additional Resources

There are many additional recommended criteria to consider, particularly if more sophistication is desired or a more substantial renovation or new construction is occurring. Please refer to the following resources for additional strategies or other sample lease provisions:

1. Acoustic comfort study ([http://www.gsa.gov/portal/media/172515/fileName/GSA_Sound_Matters_\(Dec_2011\)_508](http://www.gsa.gov/portal/media/172515/fileName/GSA_Sound_Matters_(Dec_2011)_508))
2. Better Buildings Partnership (http://www.betterbuildingspartnership.co.uk/sites/default/files/media/attachment/bbp-gtk-2013_0.pdf)
3. BOMA Guide to Sustainable and Energy Efficient Leasing for High-Performance Buildings (BOMA Green Lease Guide) (<http://store.boma.org/products/commercial-lease-guide-to-sustainable-and-energy-efficient-leasing-for-high-performance-buildings>)
4. Boston Bar Association Green Lease Guide (<http://www.bostonbar.org/docs/default-document-library/green-lease-guide-2012.pdf>)
5. California Sustainability Alliance Lease Provisions (<http://sustainca.org/sites/default/files/Green%20Lease%20Provisions.pdf>, <http://sustainca.org/sites/default/files/Green%20RFP.pdf>)
6. Green Globes® (<http://www.thegbi.org/>)
7. Green Lease Library (<http://www.greenleaselibrary.com/>)
8. GSA Lease (<http://www.gsa.gov/portal/category/107259>)
9. IMT Green Lease Impact Study (http://www.imt.org/uploads/resources/files/Green_Lease_Impact_Potential.pdf)
10. LEED® (<http://www.usgbc.org/leed>)
11. New York University Green Leasing Guide (<https://www.scps.nyu.edu/export/sites/scps/pdf/real-estate/sbe-green-lease.pdf>)
12. NYC Energy Aligned Clause (http://www.nyc.gov/html/gbee/downloads/pdf/eac_overview.pdf0)
13. Pennsylvania Lease Specs (<http://sustainca.org/sites/default/files/dgsspecs.pdf>)
14. REALPac Green Lease Guide (<http://c.ymcdn.com/sites/www.realpac.ca/resource/resmgr/leases/greenleaseguidedefinal05feb10.pdf>)
15. Sydney Better Buildings (<http://www.betterbuildingspartnership.com.au/projects/leasing/>)
16. Tenant Star (https://www.energystar.gov/buildings/tenants/about_tenant_star)
17. Tower Companies Green Lease Implementation Model (https://www4.eere.energy.gov/challenge/sites/default/files/uploaded-files/Tenant_Sustainability_Guidelines_and_Green_Building_Requirements.pdf)
18. WELL Building Standard (<https://www.wellcertified.com/>)

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19. Working Together for Sustainability: The RMI-BOMA Guide for Landlords and Tenants (http://www.rmi.org/Knowledge-Center/Library/2012-05_GuideForLandlordsTenants)