



RETAIL ROOFTOP UNIT LEASE LANGUAGE

Institute for Market Transformation

U.S. Department of Energy Office of Energy Efficiency
& Renewable Energy Better Buildings Alliance

April 2016



Introduction

In existing leased retail spaces, incentives and costs often do not align to allow commercial tenants and landlords to realize energy savings through efficient heating, ventilating and air conditioning (HVAC) system specification, operation, and maintenance. While landlords typically own rooftop units (RTU) and other HVAC equipment, tenants may be responsible for maintenance and operational use. Furthermore, tenants often contract responsibility for maintenance to a third party vendor, further diluting the incentive for either party to make investments in operational improvements or equipment upgrades. Because the RTU equipment is often already in place at the time of the lease (as opposed to many other elements of tenant fit-out renovations), there are different considerations to contemplate when developing lease language. The purpose of this document is to provide a menu of lease clauses to facilitate RTU efficiency in retail leases for both retail tenants and commercial real estate landlords.

This document recommends insertion of clause language into standard commercial leases covering the following aspects of RTU efficiency, assigning responsibility to the tenant, owner, or some combination thereof:

- RTU usage and operations: Determination of tenant space usage, hours of operation, metering and sub-metering, temperature, humidity, ventilation requirements, and energy performance.
- RTU repairs, maintenance, and retrofits: Payment and responsibility for ongoing, regular maintenance and repairs, as well as for retrofitting existing units with advanced controls.
- RTU capital replacement: Payment and responsibility for new equipment, when to replace early vs. upon failure, and who decides what efficiency level of replacement unit.

By including clauses that cover these areas in the lease, landlords and tenants can work together to save money, conserve resources, and ensure the efficient operation of buildings.

Considerations for RTU Efficiency in the Lease and Associated Lease Clauses

Paired with each RTU efficiency consideration in this report is clause language (*blue italics*) to increase tenant space RTU efficiency. Example clauses presented here can serve as a robust starting point for addressing RTU efficiency in a lease. Work with legal, leasing, and engineering teams and the landlord/tenant to adapt the language as necessary to ensure mutual benefit and maximum opportunity for RTU efficiency. Including tenant improvement fit-out requirements in the Work Letter, also known as the Construction Agreement, such as submeter installations and high-efficiency RTU installations, will ensure efforts are completed as the tenant intends.

1.1 Landlord/Tenant Split-Incentive

A “split incentive” occurs when the party paying the upfront costs of an efficiency improvement is different from the one benefitting from future energy savings. This is often the case in standard commercial leases, which divide energy costs between tenants and owners in ways that discourage energy savings:

- Under a gross lease, utilities are typically included in the rent. As a result, tenants usually have little financial incentive to save energy in their leased premises because energy costs are paid by the landlord.
- Under a net lease, tenants are responsible for paying utility bills each month. As a result, building owners have little financial incentive to invest in efficiency upgrades because tenants are paying the cost of energy consumption. Tenants may not be willing to invest in efficiency upgrades either, if their lease term is shorter than the life of the efficiency investment, if they have limited capital available for investing in large upgrades, or if the resulting operational cost savings are shared with other tenants who did not contribute toward the cost of upgrades.

Questions arise regarding the lack of visibility of energy usage and costs when commercial buildings do not submeter electricity consumption and peak demand. Unless the tenant space is submetered, the lease generally calls for the tenant to pay a percentage share of energy consumption based on square footage as opposed to basing on the tenant’s actual energy consumption. In addition, peak demand charges can sometimes constitute half of the utility bill.

Furthermore, when the tenant occupies just one space within a multi-tenant building, in monitoring and verifying RTU operations and efficiency can be challenging, as RTUs often are not integrated into a building's larger EMIS and thus are not effectively tracked, managed, or maintained.

Clause: Monitoring Energy Consumption

Landlord and Tenant shall share Tenant monthly utility data with each other for whole-building and Tenant-level benchmarking. The utility data may also be shared with the Managing Agent and with any third party who the Landlord and the Tenant agree needs to receive such data. Except where they are under a legal obligation of disclosure, Landlord and Tenant will keep confidential the utility meter data and will only use for the purposes of:

- *Monitoring and improving the energy efficiency performance of the tenant space and/or building*
- *Measuring the utility performance of the tenant space and/or building against any agreed-upon targets*

Landlord will ensure that the Managing Agent and other third parties allowed access to the utility data are placed under a similar obligation to that set out in this clause to keep any shared data confidential and to use it only for the purposes listed in this clause.ⁱ

Select one (relax language as needed for submeter requirements):

Landlord will install and pay for an electric submeter to service the lease premises to measure the consumption of electricity in the lease premises, including a submeter for each piece of Tenant capital equipment such as RTUs.

Landlord will install and Tenant will pay for an electric submeter to service the lease premises to measure the consumption of electricity in the lease premises, including a submeter for each piece of Tenant capital equipment such as RTUs.

These submeters will measure electricity consumption as well as peak demand. Landlord will charge Tenant, and Tenant will pay as an additional charge hereunder such amounts as are invoiced by Landlord for Tenant's electricity usage as measured by such submeter, without markup by Landlord, and Landlord will make appropriate adjustments to the electricity charges included in operating expenses so that Tenant's proportionate share of operating expense increase will not include such amounts which are separately invoiced and paid by Tenant.ⁱⁱ

Adjust “normal use” value based on building type, hours of operation, location, and other variables:

Notwithstanding anything herein to the contrary, if Landlord reasonably determines that Tenant's use of electricity is materially in excess of normal use, Tenant agrees to install a submeter to measure energy consumption in excess of normal use and to pay Landlord for all such excess electricity registered in such submeter.ⁱⁱⁱ “Normal use” is defined as an ENERGY STAR Portfolio Manager score of 64 or higher.^{iv}

1.2 RTU Service Book Life Compared to RTU Efficient Service Life

Under current law, depreciation periods for many types of equipment are predefined and often bear little relationship to typical service lives. The Internal Revenue Service uses a straight-line calculation for determining yearly tax depreciation:

$$\text{Yearly Depreciation} = (\text{Equipment Purchase Cost} - \text{Salvage Value}) / (\text{Life in Years})$$

Each yearly depreciation can be deducted from the organization’s annual taxable income (while the equipment is still in service), and the tax savings (write-offs) are considered a benefit on the accounting books. If an asset is retired before the end of its depreciation period, a portion of the tax deduction associated with the expenses for that asset may be lost, effectively causing the owning organization to lose the tax benefit.

Currently, the book depreciation period for RTU equipment is 39 years^v; however, RTU equipment has a typical service life closer to 15 to 20 years. The 39-year depreciation period acts as a barrier to energy efficiency because many businesses choose to repair equipment when it fails rather than writing off the undepreciated value. This write-off must be considered in the business case for replacement of an RTU.

In the case of a lease agreement stating the landlord is responsible for RTU replacement, the landlord may not be willing to replace the RTU before its end-of-book-life despite significant inefficiencies due to advanced age. The result is continued operation of an unnecessarily inefficient RTU whose energy bill is often paid by the tenant.

Determining the end of useful service life for an existing RTU, as opposed to waiting until the unit has reached its book life, is one way to address this issue. If tenants purchase new RTUs, they can avoid

depreciation issues by setting the depreciation schedule to match the lease life.

Clause: Determination of RTU End-Of-Useful-Service-Life

RTU end of useful service life is determined by an unbiased third party agreed upon by both Landlord and Tenant.

1.3 Recouping Costs for RTU Replacement

When RTU costs are shared by both the landlord and tenant, the two parties often have differing preferences for how to recoup the costs. Landlords (frequently the RTU owners) often express a strong preference to recoup the capital costs of efficiency retrofit measures based on a prediction of energy savings; a measured savings standard, from the owners' point of view, is too complex, expensive, and unpredictable. Tenants, on the other hand, are often concerned that predicted savings would not be realized and prefer cost recovery to be based on measured savings. Landlords argue that the predicted energy savings approach is more simple and fair. After all, the tenant sets the temperature and hours of use, so measured savings would require adjusting for these variables.

By assigning the replacement responsibility, the tenant and landlord can be in agreement from the start on who is paying for the RTU replacements and for the RTU capital repairs, and how those costs are shared.

Clause: Assigning Replacement Responsibility

Select one of the responsibility options:

Landlord Responsible

- a) *Landlord is responsible for replacement of RTU at the end of its useful service life, as determined by a mutual unbiased third party, no matter the length of Tenant lease.*
- b) *Landlord is responsible for replacement of RTU when the cost of repairs and energy inefficiency outweigh the cost of a new unit, no matter the length of Tenant lease, as determined by calculation guidance in the Department of Energy's Business Case for Proactive RTU Replacement.^{vi}*

Tenant Responsible

- c) *Tenant is responsible for replacement of RTU during the life of the lease. If purchased by Tenant and replaced mid-lease, the depreciation schedule of the RTU matches the remaining length of the Tenant lease.*

Joint Responsibility

- d) *Capital RTU replacements shall be included as operating expenses provided such capital replacements were necessitated by a change in law occurring after the date of this Lease or were intended to have cost saving benefits over the Term and amortized costs of same over the useful life of the improvement in accordance with generally accepted accounting principles or with respect to cost savings, over the payback period of such improvement.^{vii}*

The cost of any capital improvement to the building that reduces Building Operating Costs, the costs of such improvements to be amortized over the minimum period acceptable for federal income tax purposes, and only the yearly amortized portion thereof shall be treated as a Building Operating Costs. In no event shall this charge for yearly amortization be more than the actual reduction in the Building Operating Costs.^{viii}

Clause: Cost-Share/ Cost-Pass-Through for RTU Capital Repairs

Efficiency improvement costs of RTUs are to be shared between the Landlord and the Tenant.

Landlord may pass through smaller efficiency project costs as operating expenses. Smaller improvements (<10% of total project cost) such as RTU controls, RTU maintenance, and installation of submeters could be included as operating expenses charged to Tenant on a pro-rata basis through Common Area Maintenance(CAM).^{ix}

Select one:

- a) *Major capital RTU repairs shall be included as operating expenses provided such capital repairs were necessitated by a change in Law occurring after the date of this Lease or were intended to have cost saving benefits over the Term and amortized costs of same over the useful life of the improvement in accordance with generally accepted accounting principles or with respect to cost savings, over the payback period of such improvement.^x*
- b) *Landlord's cost recovery is based on a prediction of savings as determined by an energy specialist agreed upon by both parties, but Landlord's capital expense pass-through is limited to 80 percent of such predicted savings in any given year. This provides Tenant with a cushion to protect against underperformance; accordingly, Landlord's payback (recovery) period is extended by 25 percent.^{xi}*

1.4 Addressing Existing Rooftop Equipment at Time of Lease Start

Because RTUs often already exist on the buildings at the time of a new lease, they are not considered part of an average tenant fit-out scope. Whether tenant space fit-out funding is from a Tenant Improvement Allowance (TIA) or through turnkey improvements, RTUs are generally not a priority in the Work Letter.

By including language that addresses efficiency requirements for new RTUs, as well as efficiency usage and operation practices for existing units, the lease optimizes energy efficiency of the units. Including requirements for quality installation and quality maintenance also support this effort. Additional language regarding advanced retrofit controls for RTUs in the lease provides guidance and structure for mid-life RTU improvements. Further, language can be included to ensure the correct cooling capacity needed for the space so that RTUs are neither over- nor under-sized for the new tenant's need.

Clause: Acquisition of New RTUs upon Lease Start

Prior to delivery of possession to Tenant, Landlord shall pay for any additional RTUs to cover increased cooling capacity needs. This cost is outside the Tenant Improvement Allowance or Turnkey structure. ANSI/ACCA Standard 5 for HVAC Quality Installation Specification^{xii} must be followed for installation of any new RTUs.

Clause: Setting Efficiency Specifications for New Units

Any new RTU that serves the Premises must meet the DOE Better Buildings Alliance High-Efficiency RTU Specification^{xiii} sections addressing:

- *Cooling Performance*
- *Heating Performance*
- *Fan Operation*
- *Controls*
- *Economizers*
- *Outside Air Dampers*
- *Sizing*
- *Quality Installation*
- *Quality Maintenance*

Clause: RTU Usage and Operation

Landlord shall provide HVAC systems required to maintain conditions within a reasonable temperature range in the premises during business hours. The HVAC systems shall maintain the occupied temperature and humidity setpoints of 75°F cooling, 70°F heating, less

than 60% relative humidity; and the unoccupied temperature setpoints of 85°F and 60°F. The occupied temperature and relative humidity setpoints shall be maintained 30 minutes prior to opening business hours. The cooling and heating capacities shall be determined by a qualified engineer or contractor in accordance with ACCA Manual N^{xiv} or ASHRAE Standard 183^{xv}. HVAC system operation shall meet the ventilation requirements of ASHRAE Standard 62.1. Engineering staff shall have the capability to adjust RTU setpoints manually to optimize the RTUs and increase overall efficiency in unusual occupancy circumstances. Prior to space turnover, Landlord shall conduct and document testing and balancing of existing RTUs to ensure the units meet Tenant requirements.

Clause: Quality of Maintenance and Frequency of Inspections

Tenant is responsible for maintenance of the units, and will follow the ANSI/ASHRAE/ACCA Standard 180, Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems^{xvi} for all RTU maintenance activities.

Clause: Improvements to RTU Efficiency Mid-Life

Update as needed based on recent technology advancements and Landlord/Tenant cost share agreements:

If RTU is over 7 tons in size, has over 5 years of expected useful service life left, and units do not have advanced controls (e.g. economizer, variable fan drives), Tenant may choose to fund an RTU efficiency improvement following the Advanced RTU Campaign specification for advanced control retrofits^{xvii}. Essential advanced retrofit control features include:

- *Multi-speed or variable speed supply fan control with, at a minimum, reduced fan speed operation for first stage cooling and ventilation modes*
- *Modulating outdoor air damper control to maintain proper ventilation rates according to ASHRAE Standard 62.1 under different fan speeds*

1.5 Enforcing Lease Provisions

Even when leases specifically require certain efficiency measures or activities, they are not always implemented, nor are they enforced consistently. It is a challenge to ensure that requirements are met so that Tenants and Landlords both get what they ask for.

To address this, lease clauses can include language that reinforces confirmation and review of RTU efficiency measures and activities. Examples include engineer verification, documentation for RTUs as

part of the fit-out, commissioning requirements, and alignment of monetary incentives with the party who is investing in the space.

Clause: Engineer Verification

The engineer of record must verify that the Tenant fit-out design meets the specified requirements.

Clause: Fit-Out RTU Documentation

Documentation cut-sheets are required for all RTU equipment as part of the documentation package provided for Tenant build-out.

Clause: Tenant Space Commissioning

Parties are required to engage a third party mutually-agreed-upon commissioning authority to confirm that the installed RTU systems are functioning optimally as designed via such activities as testing and balancing. The report of the commissioning authority shall be issued jointly to Landlord and Tenant. Landlord must make adjustments to correct any errors identified from the commissioning process.

Clause: Aligning Monetary Incentives for RTU Expenses with the Investing Party

Incentives of any type (government, utility, etc.) conferred to the Building due to green improvements performed by the Landlord will accrue to the Landlord, excepting property tax reductions that reduce Tenant's Proportional Share of the Property Tax Cost. Similarly, incentives of any type conferred to the Building due to green improvements performed by Tenant will accrue to Tenant.^{xviii}

1.6 Sequencing Lease Language Finalization and TI Design Finalization

Lease vs. design sequencing is a challenge in that tenants are not easily able to negotiate something that isn't a finished design yet. Tenants don't often complete their final vetted interior space design before the lease itself has completed negotiations. While they can estimate a basic idea of capacity (average cooling tonnage per square foot) and other RTU needs, tenants may not have finalized HVAC zones and heat maps before the lease is signed. As such, it is difficult to ask for specific RTU elements in lease language before knowing exactly what RTU requirements are needed (e.g. RTU zone location, RTU tonnage breakout, or RTU controls).

To address this, tenants and landlords can encourage consistent and regular discussions between brokers and architects that will help create a feedback loop to inform optimal RTU efficiency needs for the space.

Clause: Communication and Flexibility between Brokers and Designers

RTU efficiency, cooling capacity, and operational details shall be determined by Tenant upon completion of architectural and engineering designs, and reported to Landlord in the Work Letter. Such details may include but are not limited to: required minimum cooling tonnage per sq. ft., and required number of cooling zones.

EndNotes

- ⁱ Institute for Market Transformation (IMT), "[Retail Green Leasing](#)"
- ⁱⁱ IMT, "[Retail Green Leasing](#)"
- ⁱⁱⁱ U.S. Department of Energy, "[Brandywine Realty Trust Overcomes the Split Incentive Barrier and Obtains Tenant Utility Data](#)"
- ^{iv} U.S. Environmental Protection Agency, "[ENERGY STAR Portfolio Manager Data Trends, Energy Use in Retail Stores](#)"
- ^v Sachs, Harvey; Christopher Russel; Ethan Rogers; Steven Nadel, American Council for an Energy-Efficient Economy, "[Depreciation: Impacts of Tax Policy](#)," April 12, 2012
- ^{vi} U.S. DOE, "[Business Case for Proactive Rooftop unity \(RTU\) Replacement](#)," November 20, 2015
- ^{vii} U.S. Department of Energy, "[Brandywine Realty Trust Overcomes the Split Incentive Barrier and Obtains Tenant Utility Data](#)"
- ^{viii} IMT, "[Retail Green Leasing](#)"
- ^{ix} Retail Industry Leaders Association (RILA) and IMT, "[Retail Green Lease Primer](#)"
- ^x U.S. Department of Energy, "[Brandywine Realty Trust Overcomes the Split Incentive Barrier and Obtains Tenant Utility Data](#)"
- ^{xi} New York City Mayor's Office of Sustainability, "[Energy Aligned Clause](#)"
- ^{xii} ANSI/ACCA Standard 5 "[HVAC Quality Installation Specification](#)"
- ^{xiii} DOE Better Buildings Alliance, "[High-Efficiency RTU Specification](#)," Version 0.1, September 18, 2014
- ^{xiv} ACCA, "[ACCA Technical Manual N \(Commercial Load Calculation\)](#)"
- ^{xv} [ANSI/ASHRAE/ACCA Standard 183-2007 \(RA 2014\), Peak Cooling and Heating Load Calculations in Buildings Except Low-Rise Residential Buildings](#)
- ^{xvi} [ANSI/ACCA/ASHRAE Standard 180, Commercial Quality Maintenance Checklist](#)
- ^{xvii} DOE Better Buildings Alliance, "[Advanced RTU Controller Specification](#)," Version 0.3, January 7, 2015
- ^{xviii} RILA and IMT, "[Retail Green Lease Primer](#)"

Additional References

- [A Better City, "Green Leasing: An Effective Tenant/Landlord Strategy for Energy Efficiency," December 2014](#)

-
- [Better Bricks, “The Greenest Lease Around: NEEA and Unico Collaborate on a Win-Win”](#)
 - [Business Council on Climate Change, “Green Tenant Toolkit”](#)
 - [California Sustainability Alliance, “Green Leases Toolkit”](#)
 - [Institute for Market Transformation, “Building the Case for Green Leases: Jamestown L.P.”](#)
 - Interview with Starbucks Coffee Company, December 16, 2015
 - Interview with Whole Foods Market, December 14, 2015
 - [U.S. Department of Energy Better Buildings, “Implementation Model: Leveraging Green Leases to Reduce Energy and Water Use”](#)