# The Tax Aspects of HVAC Package Unit Replacement Programs

*By Charles Goulding, Jacob Goldman and Nicole DiMarino*

Charles Goulding, Jacob Goldman and Nicole DiMarino describe several tax benefits and additional costs saving advantages for property owners that implement HVAC package unit replacement programs. They also discuss related cost segregation opportunities and Code Sec. 199 considerations.

The majority of those ubiquitous metal boxes on the top of buildings everywhere are heating, ventilation and air conditioning (HVAC) systems, commonly called package units. Package units generally have a product life of 14 or so years. It is estimated, based on Air Conditioning and Refrigeration Institute (ARI) industry shipment data, that nine billion dollars worth of these units installed in the early 1990s will soon need replacing. Numerous leading manufacturers manufacture package units, including, but not limited to Carrier, Lennox, McQuay, Trane and York.

## Up on the Roof

To help the company's tax department better understand package units, the energy manager at one major retailer recently asked the tax department to meet on the top of the roof at a facility near their corporate office. This exercise greatly assisted the tax department in understanding the nature and functionality of package units. This process also enabled the tax department to see how the package units were affixed to the building, in that they are curb mounted to the roof, aligned with roof aperture and connected to the building and other mechanical systems *via* electrical, piping and ductwork connections.

## Package Unit Replacement Programs

Historically, many property owners waited until a deteriorating package unit completely broke down. Then these property owners would scramble to get any replacement unit that worked from a local HVAC dealer. This can be risky behavior that can result in the building temporarily being without heat and air conditioning.

## The New Managed Approach

Increasingly, property owners are obtaining substantial economic benefits by entering into formalized package unit replacement (PUR) programs. PUR programs are a building management technique that offers numerous cost savings including:

- energy cost savings from increased efficiency,
- purchasing price efficiencies,
- more efficient product energy cost savings,
- repair part savings,
- service call maintenance savings,
- rebate realization and higher rebates,
- demand response savings, and
- federal and state tax savings.

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## Energy Cost Savings and Purchasing Efficiencies

Package units have become increasingly more energy efficient over the last decade. Merely replacing an older unit with today's legally required minimum energy efficiency units will often result in energy cost savings exceeding 20 percent from the prior generation unit.

Everyone in the installed package unit supply chain, including manufacturers, dealers and installers, can offer more favorable per unit pricing related to obtaining all of particular company's business for a fixed period of time, resulting from volume pricing and the ability to systematically schedule manufacturing, production, delivery and installation.

Numerous utilities offer substantial rebates for purchasing more energy efficient package units, and often the rebates for high efficiency units are set at the highest percentage, or fixed level. Frequently, property owners who wait until the last minute do not even qualify for these valuable utility rebates since many rebate programs require pre-approvals.

## Additional Energy Cost Savings from Advanced Ordering

One of the biggest saving opportunities from PUR programs is the ability to prearrange delivery of much more energy efficient units. Based on traditional product demand, package unit HVAC dealers tend to stock the minimum energy efficient units and back order the more energy efficient units. Accordingly, waiting until an existing unit is inoperable usually forecloses the ability to purchase the more energy efficient units that require six to 12 weeks advance ordering.

Once the age of package units begins to exceed normal product life, they typically begin to require replacement of relatively expensive component parts, in particular, expensive compressors.

Old package units require constant maintenance and higher fees are incurred for repetitive service calls. HVAC service companies know how to tweak and patch old units so they continue operating for limited time intervals. Although this can be a lucrative business for the service provider, it is really not a productive use of an experienced HVAC mechanic's work time.

## Rebate Capture and Higher Rebates

Numerous utilities offer substantial rebates for purchasing more energy efficient package units, and often the rebates for high efficiency units are set at the highest percentage, or fixed level. Frequently, property owners who wait until the last minute do not even qualify for these valuable utility rebates since many rebate programs require pre-approvals, which administratively cannot be accomplished on an immediate basis. Moreover, many utility programs logically offer higher rebates for purchasing higher energy efficient units, but, as indicated above, those units are generally not available with a last minute equipment purchase.

In addition to utility rebates, in states with demand response programs there is often an additional economic benefit for payments available from the permanent electric grid demand reduction related to purchasing the new, more energy efficient package units. HVAC units are one of the biggest building equipment electricity users.

## Tax Savings

Normally package units are capitalized and depreciated for tax purposes as buildings over 39 years. This is actually a very onerous tax depreciation life period for equipment that clearly is not going to last 39 years and, in most, cases has a useful economic life that is less than 20 years and less than 50 percent of the tax prescribed useful life.

Package units purchased pursuant to PUR programs can potentially qualify for qualified package unit replacement expense (Q-PURE) tax deductions depending on facts and circumstances, when properly documented. For Federal tax purposes, the tax aspects of repair and replacement of building equipment is largely governed by a long line of leading court cases including *Plainfield-Union Water Co.*[1] This frequently cited case established the so-called *Plainfield-Union* test regarding wear and tear measurement points.

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*FedEx Corp.*[2] concluded that an aircraft, and not the aircraft engine, was the appropriate unit of property. By analogy, this "appropriate unit" approach should apply to HVAC systems. These court cases and recent IRS guidance, including proposed regulations under Code Sec. 263 that were released in March 2008 and corrected in April 2008,[3] set out a series of bright line tests applicable to determining whether replaced building equipment is entitled to an immediate tax deduction.

## Cost Segregation Interface

As a general rule, when installed in new buildings, package units are considered building property subject to 39 year depreciation. In certain special situations replacement package units may be installed with added task HVAC that is eligible for shorter depreciation, typically seven years under the cost segregation rules. Examples of task HVAC may be data center HVAC, HVAC for manufacturing processes, specialized ventilation systems and heat recovery systems where process heat may be used to service the building. With larger HVAC equipment installations, taxpayers should consider both repair expense opportunities and cost segregation opportunities. If the HVAC replacement/task HVAC combination arises to a betterment, disqualifying repair treatment, the default may be to cost segregation as the exclusive tax opportunity.

## Package Unit Tax Repair Expense Analysis

### Four "Unit of Property" Tests

One of the most important criteria for determining whether a building product is considered a repair replacement item is the so-called "four unit of property" tests.

There are four subparts to "the unit of property" tests:

- The first test asks how the taxpayer and industry treats the component part in relation to the larger unit of property for regulatory, market, management and accounting purposes.
- The second test asks if the economic useful life is co-extensive with the economic useful life of the larger unit of property.
- The third test concerns whether or not the larger unit of property and the smaller unit can function without each other.
- Lastly, test four asks whether the component part is or can be maintained while affixed to the larger unit of property.

Recently released Proposed Reg. §1.263(a)-3(d) requires capitalization if:

- the new investment results in a "betterment,"
- the new improvement restores the unit of property, or
- the new investment adapts a unit of property to a new or different use.

### Worn Standard

It is important to provide worn documentation, meaning the replaced property must have completed its useful life. The facilities and tax departments should begin this analysis by first identifying all package units considered worn by applying a bright-line useful life standard. Geography impacts HVAC package unit life and certain seaside regions of the country require HVAC coastal units that have a shorter economic life.

### Betterment Test

The facilities and tax departments should agree on a bright-line betterment criteria. Based on tax precepts, the replacement unit cannot be considered a betterment. The selected betterment standards should reflect current package unit regulatory and technology standards. Although the recently released proposed regulations withdraw the so-called value test, the betterment test does involve a materiality threshold. Accordingly, the new unit cannot result in a material increase in overall building value. The age or performance characteristics of HVAC systems generally have little or no impact on total realistic value.

### Restoration

The new unit cannot serve to restore a unit of property, meaning it cannot prolong the useful life of the building. The general consensus is that installing a new package unit is not going to extend the useful life of a building.

### Addition to New or Different Use

The replacement unit cannot result in a material change in building function, including a building extension. Accordingly, installing a unit that enables the building itself to serve an entirely different purpose would be problematic for tax repair expensing. The new unit cannot result in an increase in the capacity, productivity, efficiency, strength or quality of the unit of property or its output.

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## Code Sec. 199 Interface

The Code Sec. 199 deduction for qualified production activity income involves various complex tax issues related to construction projects. A discussion of those issues is outside the scope of this article.[4] Construction activities include activities performed in connection with a project to erect or substantially renovate real property. The 2008 proposed regulations under Code Sec. 263 require capitalization of amounts paid to replace a major component or substantial structural part of a unit of property.

Accordingly, sellers of roof top package units that also engage in installation may need to reconcile their own use of Code Sec. 199 with the customer's use of the repair expense provisions, which may conflict with each other.

## Conclusion

The practical problem for building owners and facility managers is that they may not know how to apply and document compliance with the various repair and replacement tax expense tests. The advantage with implementing a new PUR program is that the property owner can simultaneously justify engaging a tax advisor knowledgeable about the Q-PURE repair expense tax rules and their application to PUR practices. The taxpayer's documentation should demonstrate compliance with all of the repair versus capitalization standards. Waiting until the last minute to complete an obligatory task is normally never sensible and with package unit replacements may be financially indefensible. With nine billion dollars in prospective package unit replacements, building operators can benefit from substantial cost savings by planning in advance, and should carefully consider the potential tax opportunities as well.

### Endnotes

1 *Plainfield-Union Water Co.,* 39 TC 333, Dec. 25,740 (1962).

2 *FedEx Corp.,* DC Tenn., 2003-2 USTC ¶ 50,697, 291 FSupp2d 699. *Aff'd* CA-6 (unpublished opintion), 2005-1 USTC ¶ 50,186.

3 Guidance Regarding Deduction and Capitalization of Expenditures Related to Tangible Personal Property, 73 FR. 12,838 (Mar. 10, 2008), 73 FR. 19,451 (Apr. 9, 2008) (to be codified at 26 CFR pt. 1).

4 *See* Robert Feinschreiber and Margaret Kent, *Vagaries of the Section 199 Construction Incentive,* J. Int'l Tax'n, July 2007, at 30, *available at ProductionIncentive.com.*

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