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# Energy Upgrades at City-Owned Facilities: Understanding Accounting for Energy Efficiency Financing Options

## City of Dubuque Case Study

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*Dubuque, Iowa (population approximately 60,000), is establishing a revolving loan fund to finance energy retrofits for city buildings. Dubuque's leadership illustrates how small cities can invest in opportunities to save energy costs and meet other goals.*

## Overview

The city of Dubuque, Iowa, aimed for a twofer — lower energy costs for public facilities and reduced air emissions. To achieve that goal, the city partnered with the Iowa Economic Development Authority to establish a revolving loan fund to finance energy efficiency and other energy projects at city facilities. But the city needed to understand approaches for financing energy projects to achieve both of their goals in a manner that would not be considered debt — in this case, obligations booked as a liability on the city's balance sheet. With funding from the U.S. Department of Energy's Climate Action Champions Initiative, Lawrence Berkeley National Laboratory (Berkeley Lab) provided technical assistance to the city to identify strategies to achieve these goals.

*Retrofitting city-owned buildings can decrease municipal energy bills, reduce operating costs, increase worker productivity and comfort, and contribute toward meeting local government goals for reducing air pollution. This fact sheet provides information that may be valuable for all cities and other government entities interested in financing energy improvements but constrained by debt limitations.*

**This fact sheet does not constitute accounting or legal advice. Issues presented in this document may be relevant to the question of whether a financing arrangement can appropriately be treated as non-debt. Local governments should consult with accountants and legal advisors to make any determinations on debt categorization and other financing issues.**

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Revolving loans use a source of money to fund initial cost-saving projects, such as energy efficiency investments, then use the repayments and interest from these loans to support subsequent projects. Berkeley Lab and the city examined two approaches to explore whether revolving loans could potentially be treated as non-debt: 1) financing arrangements containing a non-appropriation clause and 2) shared savings agreements. This fact sheet discusses both, including considerations that may factor into their treatment as debt from an accounting perspective.

## What are non-appropriations clauses and shared savings agreements?

A financing agreement that contains a "**non-appropriations clause**" (sometimes referred to as a "fiscal funding" clause) states that the government entity agrees to repay its obligation unless it is unable to appropriate the funds to do so. Many municipal financing arrangements contain such clauses, though investors typically assume that there is very little risk that such funds will not be repaid.[1]

A **Shared Savings Agreement** is a less common arrangement in which the repayment obligation is dependent on the realization of energy savings or energy cost savings, with part of the savings going to the investor and part of the savings kept by the facility owner — in this case, the city.[2]
Both of these types of arrangements are sometimes called "non-debt" financing solutions. Non-debt solutions would generally not need to be accounted for as long-term liabilities on a municipality's balance sheet. Instead, these arrangements could be booked on an operating statement only if and when they come due. However, the proper accounting treatment of such arrangements may be complex.

## Can such arrangements be considered non-debt?

### *Non-Appropriations Clauses*

Some government financing organizations have suggested that non-appropriations clauses can be used to allow financing arrangements to be treated as non-debt. For example, the Association for Governmental Leasing and Finance (AGLF), which represents the government leasing industry, appears to suggest that non-appropriations clauses can be used to create a non-debt arrangement.[3] AGLF notes that, since the "clause enables the lessee to terminate the lease agreement at the end of the current appropriation period without further obligation or penalty…[it] enables the lessee to account for the lease obligation as a current expense instead of debt."[4]

However, the Governmental Accounting Standards Board (GASB), which sets accounting guidelines for state and local governments, recently clarified its position on fiscal funding clauses. GASB advised that a non-appropriations clause would not garner non-debt treatment for an arrangement "unless it

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[1] "Capital and Operating Leases: A Research Report," Prepared by Susan S. K. Lee, Federal Accounting Standards Advisory Board, October 2003. http://www.fasab.gov/pdffiles/combinedleasev4.pdf

[2] Shared savings agreements differ from guaranteed savings Energy Savings Performance Contracts (ESPCs) that are often used by Energy Service Companies (ESCOs). If an ESCO meets their guaranteed savings target for an ESPC, they have fulfilled their contract and will be paid the amount agreed to in the contract. They do not earn more money for realized savings that exceed their target amount. In a shared savings agreement, they would.

[3] AGLF, a nonprofit association, engages in issues related to governmental and non-profit leasing and financing (AGLF n.d.).

[4] Association for Governmental Leasing and Finance (2014).

is *reasonably certain* that the option will be exercised (funds will not be appropriated)" (emphasis added).[5] This suggests that, in most cases in which lessees do not anticipate invoking the clause, the arrangement should be accounted for as debt.

### *Shared Savings Agreements*

Certain types of financial arrangements, known as "executory contracts," do not need to be booked on the balance sheet because they require ongoing performance on the part of the provider in order to trigger ongoing payment obligations (Governmental Accounting Standards Board 2016). The risk that a provider may fail to meet its ongoing obligation, and therefore fail to trigger a future payment obligation, is considered sufficient to refrain from booking such arrangements as long-term liabilities from the outset of the agreement. In order for shared savings agreements to be treated as non-debt, they would potentially need to be viewed as a subset of this broader category of executory contracts. The argument for doing so would presumably be that payment obligations under a shared savings agreement are not triggered unless and until savings are realized. This continuous requirement for savings to materialize could potentially be seen as a type of ongoing "performance" obligation.

However, it is unclear whether this type of "passive" performance requirement is sufficient for non-debt treatment. In order for the entire underlying contract to be treated as non-debt, the underlying service may need to require a more "active" ongoing performance requirement. Certain types of services fundamentally cannot be provided without the service provider showing up to perform them on an ongoing basis (e.g., accounting guidance points to examples such as street sweeping and snow removal) (Governmental Accounting Standards Board 2010). By contrast, energy savings can be realized immediately and continuously after efficiency measures have been installed, even if the installer takes no further action. In general, the risk of one party failing to "actively" perform an ongoing service may create greater uncertainty of payment obligations than a passive savings realization requirement.[6] If a shared savings agreement is not defined as an executory contract, it may instead constitute a lease, which would be treated as debt under recently proposed GASB guidance (Governmental Accounting Standards Board 2016).

Ultimately, the accounting treatment of shared savings agreements may depend on the degree of uncertainty of long-term payment obligations triggered by the risk of savings realization. If there is very little uncertainty — for example, if there is a minimum payment requirement regardless of the level of savings realized, or if the level of savings is predetermined by agreement rather than measured over time — then it is likely that the arrangement would need to be treated as a balance-sheet liability. If there is greater uncertainty, then the proper treatment of the arrangement may be more of an open question.

Even if it is determined that a shared savings agreement does constitute a balance-sheet liability, it is possible that this liability may not need to be *quantified* on the balance sheet if the precise amount of

[5] Governmental Accounting Standards Board (2016).

[6] Even if there is an ongoing requirement to provide maintenance on installed measures, accounting guidance suggests that this aspect of the agreement should be treated separately from payments for the underlying installation (from Governmental Accounting Standards Board (2010)).

the liability is unknown until savings are realized.[7] Whether the amount of the liability is unknown may depend on the structure of the shared savings agreement.[8]

### Practical mechanisms for determining energy savings levels for shared savings

All else equal, the more streamlined the mechanism for determining savings for a shared savings agreement, the simpler and more economical it will be to facilitate energy-saving projects. Straightforward methods for determining savings are also less prone to uncertainty or disputes over savings. For limited size projects with little savings uncertainty, there may be advantages in both parties simply agreeing at the outset that installations, once they are verified to have been properly implemented, are likely to save a stipulated amount of savings, without having to measure and verify actual savings later on.[9] However, measuring savings on an ongoing basis may help build confidence among stakeholders that efficiency projects provide real value, improve savings realization through active monitoring and, in some cases, help point out non-energy benefits such as reduced O&M costs.

**Determining energy savings and energy cost savings for efficiency projects**

*Savings are based on the difference between (a) how much energy is consumed after the efficiency project is implemented and (b) how much energy would have been consumed if the efficiency project did not take place. Choosing a method to determine savings generally involves a tradeoff between accuracy and cost, balanced with the risk of savings uncertainty associated with the project.*

*Typically, shared savings agreements are based on the amount of energy saved, not necessarily the energy costs saved. That's because energy costs depend on the energy rates charged by the servicing utility (and, where applicable, alternative energy suppliers). Energy rates change over time, independent of the performance of the efficiency project. The risk of such changes is not typically accounted for in shared savings agreements. Thus, the project may result in more or less actual cost savings than anticipated.*

The choice between stipulating savings at the outset versus measuring actual savings on an ongoing basis may also have implications for the accounting treatment of a shared savings agreement. In order for payment obligations to depend on savings realization, there must be a method in place for determining savings on an ongoing basis. However, from an accounting perspective, the method may not need to be as complex as methods sometimes used to adjust savings to account for factors that may impact energy usage, such as building occupancy and changes in operations.

Assuming that continued savings realization constitutes "performance" from an accounting perspective, as discussed above, it may be sufficient to ensure that realization is actually dependent on some type of basic ongoing measurement, rather than predetermined values. For more information on measurement and verification of efficiency project savings, see the State and Local

[7] In this case, the existence of the liability could be noted on the financial statements without a precise numerical value.

[8] If payments vary depending on the level of savings realized, then the amount of the liability may not be quantifiable. If payments are fixed (e.g., the borrower pays a fixed amount if savings are realized and keeps any savings above that amount), the amount of the liability may be quantifiable and may need to be listed on the balance sheet.

[9] For establishing stipulated savings for well-defined ("prescriptive") energy efficiency measures, see Steven R. Schiller, Greg Leventis, Tom Eckman, and Sean Murphy. 2017. *Guidance on Establishing and Maintaining Technical Reference Manuals for Energy Efficiency Measures.* Prepared by Lawrence Berkeley National Laboratory for the State and Local Energy Efficiency Action Network. https://emp.lbl.gov/publications.

Energy Efficiency Action Network (SEE Action) Evaluation, Measurement, and Verification (EM&V) Resource Portal.[10]

## Conclusions

This fact sheet examined two types of financial arrangements to explore factors in determining their potential treatment as debt or non-debt from an accounting perspective. Proper accounting of these agreements depends on nuanced accounting guidance. For example, the reasonable certainty that a non-appropriation clause will be invoked may be required in order for such a clause to allow an arrangement to be considered non-debt. Treatment of a shared savings agreement may depend on whether payment is contingent on performance, the definition of performance, and whether the amount of the payment obligation is quantifiable.

Determining the projected energy savings for a shared savings agreement requires a balance between cost, simplicity, and certainty. Further, the method used to determine savings also may have accounting implications. Debt treatment issues are complex and nuanced. Local governments that desire non-debt treatment should consult accounting and legal professionals before entering into a financing arrangement.

### *Take Away Terms and Rules of Thumb for Decision Makers*

#### Definitions

Non-Appropriations Clauses: A clause in a financial agreement that states that the government entity agrees to repay its obligation unless it is unable to appropriate the funds to do so.

Shared Savings Agreements: A less common arrangement in which the repayment obligation is dependent on the realization of energy savings or energy cost savings, with part of the savings going to the investor and part of the savings kept by the facility owner.

#### Is it considered debt? A simplified guide:

Non-Appropriations Clauses
*Under what conditions will the clause by exercised? Is it "reasonably certain" that the clause will be exercised?* If so, accounting guidance suggests it may be appropriate to treat it as non-debt. If not, it may be appropriate to account for it as debt.

Shared Savings Agreements
*Will there be ongoing measurement and verification after installation of equipment to evaluate performance and determine the amount owed?* If so, an accounting professional should review the structure to determine whether it can be considered non-debt. If not, it would likely be considered debt.

**THE ABOVE SUMMARY SHOULD NOT BE CONSIDERED ACCOUNTING ADVICE. READERS SHOULD CONSULT THEIR ACCOUNTING PROFESSIONALS TO DETERMINE THE PROPER TREATMENT OF ANY TRANSACTION.**

[10] https://www4.eere.energy.gov/seeaction/evaluation-measurement-and-verification-resource-portal

## Additional Resources on Government Lease Accounting

Association for Governmental Leasing and Finance. "Frequently Asked Questions About Tax-Exempt Municipal Leasing." 2014.

Financial Accounting Standards Board. "Accounting Standards Update 2016-02--Leases (TOPIC 842) Section C—Background Information and Basis for Conclusions." February 2016.

Governmental Accounting Standards Board. "Exposure Draft--Leases." January 25, 2016.

—. "Statement No. 60: Accounting and Financial Reporting for Service Concession Arrangements." 2010.

## For More Information and Technical Assistance

U.S. Department of Energy's State and Local Solutions Center: https://energy.gov/eere/slsc/state-and-local-solution-center; Technical Assistance Gateway: https://energy.gov/ta/state-local-and-tribal-technical-assistance-gateway
Berkeley Lab Electricity Markets and Policy Group's energy efficiency website: https://emp.lbl.gov/research/energy-efficiency; technical assistance website: https://emp.lbl.gov/research/technical-assistance-states

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