

Memorandum

To: Chicago Infrastructure Trust

From: Phoenix Capital Partners, LLP

Date: December 26, 2013

Re: Assessment of Proposed Transaction

Summary of the Project

The Chicago Infrastructure Trust (“Trust or CIT”) was established by the City of Chicago (“City”) in April 2012 with the goal to identify municipal and private infrastructure projects that would not otherwise get funded, using innovative, private capital sourcing approaches. Last month, the CIT Board approved and announced the retrofitting of approximately 62 buildings in the City to reduce energy usage and consumption, while potentially generating excess annual savings in corresponding utility costs.

The Retrofit One Infrastructure Project consists of the following:

- Upgrades to 62 buildings covering 5.9 million square feet at a total project and equipment cost of up to \$13 million dollars. These buildings are comprised of the following public and essential purpose projects:
 - 23 libraries
 - 15 police stations and buildings used primarily by police
 - 8 facilities that provide health care, community centers and facilities for the disabled and aging, including health centers in West Town, Englewood, Uptown, and Roseland
 - Many unique city properties including City Hall, the Cultural Center, the 311 center, the 911 center, the juvenile detention facility, the police academy and fire academy, among others
- Projects spanning 38 different wards throughout the City.
- The majority of the retrofit energy work will focus on:
 - Lighting retrofits
 - HVAC improvements
 - Digital controls
 - Building envelope weatherization
- Buildings will become not only more energy efficient, but will also provide a more comfortable environment for the users of those facilities
- If all upgrades are completed, it is estimated that the City’s energy bill will be reduced by ~\$1.4 million per year, but the majority of the savings will be used to pay back the project costs; thus, the initiative and transaction will be revenue-neutral for the City
- This undertaking is projected to deliver annual utility usage reductions of ~18% of the energy used in the buildings included in the program
- The energy saved is equivalent to taking 3,030 cars off the road annually
- These retrofit projects will combine to create approximately 117 jobs; while some of these will only last through the construction period, others will continue until the end of the contract term.

Selection Process

In 2012, the City asked the Public Building Commission (PBC) to engage three Energy Service Corporations (“ESCOs”) to perform a Investment Grade Audit of 110 City buildings. The Investment Grade Audit Reports from each of the firms provided detailed strategies including project descriptions and savings projections for the retrofitting of the selected facilities. These submissions also included recommended groupings of buildings and projects along with estimated savings based on various interest rate assumptions and loan repayment periods associated with the financing of the Project.

Subsequently, the Trust issued a Request for Qualifications (“RFQ”) to determine the interest and qualifications of potential financial partners. The RFQ was issued on January 29, 2013 and the Trust received responses from 13 firms on March 6, 2013.

To select the optimal financing platform and placement agent for the Retrofit One project, the Trust later issued a Request for Proposals (“RFP”) in August 2013. Pursuant to this RFP and several addenda in September 2013, the Trust selected Piper Jaffray to place an Energy Services Agreement (“ESA”) which, along with the Guaranteed Energy Performance Contract (“GEPC”), guarantees the annual savings to the City as a result of the Project. The Trust and Piper Jaffray are currently completing final negotiations with Bank of America Public Capital Corporation, which has been selected as lender for the ESA transaction.

Financing Structure Selected

After review and deliberation of various financing options as described below, the Trust ultimately selected the Energy Services Agreement (“ESA”) method for financing and the implementation of the Retrofit One project. The ESA model can be taxable or tax-exempt and involves the issuance of financial instruments backed by both a Guaranteed Energy Performance Contract (i.e., savings guarantee) combined with an ESA (Energy Savings Agreement), which together, form a consistent annuity stream for lending entities. The ESA creates a contingent payment obligation per unit of energy savings generated via the installation and use of either unspecified assets or assets for which the end user does not exclusively control use.

An ESA doesn’t require up-front cost to the City, just the agreement to provide a payment per unit of energy saved. If the City saves nothing from the upgrades installed, it pays nothing. This eliminates the project performance risk for the City. Additionally, ESAs are treated as “off credit” by the credit ratings agencies, and preserve borrowing capacity for projects that do not provide a return on their investment. Unlike a bond sold to investors, it requires no guarantee or reserve fund, just a UCC 9 Fixture Filing to secure lenders in case of default on proven savings. If savings are realized and the City pays the ESA bill, ownership can transfer back to the City under the terms of the ESA agreement, which has a term of 15 years. If savings are not realized, again, the City owes nothing.

Similar to a revenue bond, creditors’ claims, in this case, are only on the particular savings associated with the project:

- If less than 100% of guaranteed savings are realized, the City only owes the realized savings and the ESCO covers the remainder owed to the lender
- If 100% of forecasted savings are realized, the City owes 100% of the savings and investors receive all the savings
- If more than 100% of forecasted savings are realized, the City owes the Trust the total realized savings above the forecasted savings, while the lender is only owed the forecasted savings, so the City/Trust retains any upside in this scenario, not the lender.

In every case it is important to note, the City continues to pay its utility bill (which should be lower because of the installed conservation measures), as well as the total of ESA payments. These total payments in aggregate should be lower than the utility bill would have otherwise been, had no ESA existed.

Financing Options Considered

The Trust considered and reviewed the following additional options to finance the project:

- General Obligation Bond
 - Taxable or tax-exempt financial instrument that guarantees a set annuity backed by the tax-collection and appropriation power of the City
 - Not selected because it impacts credit ratings, can constrain borrowing capacity and should be avoided for projects where an ROI exists

- Capital Lease
 - Taxable or tax-exempt financial instrument that creates a long term payment obligation in exchange for the provision of specified assets for which the user controls use and that are generally transferred to the lessee at the end of the period. Unlike an operating lease, the lessee assumes some of the risks of ownership and enjoys some of the benefits. Consequently, lease payments are recognized as both an asset and a liability on the balance sheet. The lessee gets to claim depreciation on the asset each year and also deducts the interest expense component of the lease payment each year.
 - Not selected, as long-term leases may be viewed as debt and require annual appropriation, therefore impacting credit
- Operating Lease
 - Taxable or tax-exempt financial instrument that creates a contingent payment obligation for the provision of specified assets, for which the user controls use. At the end of the lease period, the lessee returns the property to the lessor. Since the lessee does not assume the risk of ownership, the lease expense is treated as an operating expense in the income statement and the lease does not affect the balance sheet
 - Not selected because it may impact balance sheet and credit ratings under forthcoming FASB rule changes requiring full disclosure on the balance sheet. The GASB often follows similar policies.
- Grantor Trust
 - Taxable or tax-exempt model that involves the City relinquishing to a grantor trust title to assets that backstop financial instrument issuances that still create a long-term payment obligation by the City to the Trust
 - Not selected because it is on-credit, requires transfer of title, and is novel and potentially not replicable
- ESCO Model
 - Taxable or tax-exempt model that involves the issuance of a financial instrument that is supported by an Energy Performance Contract (i.e., savings guarantee) to the end user
 - Not selected because it is on-credit and might limit other financing capacity

Project and Financing Structure Assessment

The Retrofit One project and the proposed financing structure may introduce the City and the Trust to various risks as well as both intended and unintended costs. Below we identify those risks and costs and describe what impact, if any, will affect the City and/or the Trust:

1) Risk analysis:

a. **Interest rate risk** – The ESA structure does not expose the City to interest rate risk after the deal is closed. However, before the transaction is closed, the City is exposed to interest rate and credit rating fluctuations, which will affect the long term interest rate. However, a locked rate of 4.95% has been secured from the lender (Bank of America Public Capital Corporation) so that project economics and scope can be assured. Given the average life of the loan, the interest rate is approximately 220 basis points over the comparable Municipal Market Data (“MMD”) Index based on interest rates as of December 20, 2013. MMD is often used as the benchmark for municipal bonds. The City’s general obligation bonds trade at approximately 200 basis points over the MMD Index. This loan rate is approximately 20 basis points higher than a comparable GO level, but has additional risk for the lender such as appropriation risk, illiquidity risk, no public rating provided and others. Given these factors, the interest rate is reasonable and below the level offered by other lenders based on results provided by Piper Jaffray.

b. **Revenue risk** – The ESA structure does not expose the City to revenue risk, since it only pays debt service if and when savings are realized. If there are no savings as a result of the installation of the energy

conservation measures (“ECMs”), the City owes nothing. The ESCOs’ Guaranteed Energy Performance Contracts (“GEPC”) ensure that the Trust’s debt to financiers is repaid, regardless of whether savings are realized by the City.

c. Long-term operating risk – The City will commit to standard operating and maintenance procedures in order to ensure that the ESCOs’ GEPCs remain valid. Normal equipment and manufacturers’ warranties apply to all installed equipment, and the City will be required to replace any ECMs with shorter lifetimes than the 15-year ESA contract term.

d. Risk of renegotiation at a future time – As long as all three ESCOs’ financial health remains strong and their GEPCs remain valid (or are transferred to third-party energy project performance insurers such as Energi, a company which backstops the savings guarantee an ESCO offers to protect owners), there is no foreseeable risk of renegotiation at a future time.

e. Risk associated with not proceeding with the transaction – Sunk costs of ~\$0.4M in professional fees and \$1M in the Investment Grade Audit would be lost. The City would stand to lose ~\$1.4M in net energy savings per year after the ESA contract term is completed. The Trust would lose the value of any energy savings in excess of the GEPC guaranteed savings amount. The City would not achieve its 2015 sustainability policy goal of reducing energy consumption in City buildings by at least 10%.

2) Cost to the participating government, measured in terms of:

a. Financing costs – If and when the transaction closes, professional fees and costs are covered by the annual savings amount. The Trust would incur ~\$0.4M in professional fees. These fees are comparable or lower than other forms of financings. All project-related costs will be less than the amount of energy saved per year, such that the ECMs will pay for themselves with the savings they create.

Phoenix capital compared the potential interest costs of financing through the CIT to various scenarios as described above, which included more traditional bond financing options, such as a G.O. credit scenario and an appropriation based credit scenario, which would be subject to annual appropriation by City Council. We analyzed market trends, the City’s G.O. credit, and other considerations in selection of a spread to the MMD scale. Based on market conditions as of December 20, 2013, there is a credit “spread” or differential between the various gradations of G.O. bonds. The difference between the 20-Yr AAA rate of 3.81% and a 20-Yr A rate as of December 20, 2013 was 80 bps; however it should be noted that the City’s ratings from Moody’s and Fitch are at the lowest rung of the “A” category and that all three ratings are on negative outlook. As such, we considered the BBB scale as the baseline to better reflect the City’s credit spread, although this scale is less reliable than the AAA scale due to the relative lack of BBB credits and investor perception of the credit factors that make up the wide variety of BBB credits. The overall differential to the 20-Yr BBB scale was approximately 135 bps at a national level.

Tax Exempt Credit Yield Curves as of December 20, 2013	
Years to Maturity	AAA G.O.
1	0.17%
5	1.22%
10	2.75%
20	3.81%
30	4.18%

Source: Thompson Municipal Market Monitor

In addition to the analysis of national market trends, there is a trading differential that has been observed in the market for Illinois debt given the serious fiscal challenges facing the State of Illinois and many of the local units of government including the City. As a result, Phoenix selected a spread for the comparative G.O. scenario at a spread of 200 bps over MMD as referenced above, which reflects the estimated impact of recent rating downgrades and recent trading levels. For the appropriation based credit, assuming that this credit will be rated at least one rating level below that of the applicable G.O. rating, Phoenix utilized an interest rate scale that is 215 bps over the MMD for this scenario.

A summary of the comparison of the proposed CIT financing to a potential G.O. and appropriation backed financing options, neither of which is desired by the City due to credit considerations, is provided below for illustrative purposes:

Comparison of Proposed \$13 Million CIT Financing to GO Bonds and Appropriation-based Financing			
	CIT Financing	G.O. Bonds	Appropriation Bonds
Project Fund	\$13,000,000	\$13,000,000	\$13,000,000
Term	15 Years	15 Years	15 Years
Average Life	10 Years	10 Years	10 Years
Interest Rate	4.95%	4.75%	4.90%

b. **Operating costs** – According to 2FM (Department of Fleet and Facility Management) and the PBC, there will be no net new operating costs for the City, but it will need to retain records of its adherence to operations and maintenance procedures on all ECMs to ensure the GEPC remains valid.

c. **Financial liability** (e.g., for cost overruns, revenue shortfalls, etc.) – Under the ESA structure, the City is not liable for any shortfall in projected energy savings. Also, the City is not liable for cost overruns incurred by the ESCOs in the installation of the ECMs. It cannot, however, request that the ESCOs install whatever the City wants, since the ESCOs’ list of ECMs was precisely calculated by underlying energy economics and measured prices.

d. **Lifecycle maintenance costs compared with alternative financing structures** – According to 2FM and the PBC, no additional maintenance costs are associated with the ESA, but the City must adhere to agreed-upon maintenance policies and retain accurate records.

3) Economic benefit to the City and the Chicago metropolitan region from the transaction

a. **Impact on job creation and retention** – If all the projects are completed, an estimated 117 jobs (~\$13M * 9 jobs per million spent) will be created in 38 different wards over the course of the 1-2 year construction period, and 2-5 additional jobs will be created for the lifetime of the ESA agreement.

b. **Energy bill savings** - The City’s energy bill will be reduced by ~\$1.4 million per year, but the majority of the savings will be used to pay back the project costs during the contract term, keeping the transaction essentially revenue-neutral for the City during the ~15 year term and revenue positive (by ~\$1.4M) after the contract term is completed.

c. **Carbon and energy price impact** – The Retrofit One projects will deliver annual reductions in energy usage of ~18% of the energy used in the buildings included in the program. This will reduce the City’s exposure to increases in energy prices going forward, whether as a result of natural market economics or carbon regulation.



Future Assessment

In accordance with Executive Order No. 2012-1, this project should be included in the annual evaluation by an independent advisor responsible for assessing the impact of the Trust and its projects. We recommend the next evaluation occur at the end of the construction phase, in approximately one year.

Conclusion

Our overall assessment is based on information provided by the City and the Trust related to actions initiated and completed prior to our engagement. The Project, once completed, should provide cost and economic benefit to the City via job creation over a 15 year period and a reduction in energy costs on an annual and ongoing basis. With the financing provided by Bank of America Public Capital Corporation at a locked rate of 4.95%, the ESA platform selected by the Trust should provide the lowest overall credit, balance sheet and revenue risk to the City and allow the Trust to create consistent economic benefit for the City and the region.