Union Water Supply System

P.O. Box 340, 1615 Union Avenue, Ruthven, Ontario, N0P 2G0
Tele: 519-326-1668 Fax: 519-326-3490
Email: rbouchard@unionwater.ca
www.unionwater.ca

RE: Business Case – UWSS Incorporation

I. Purpose

This document (the "**Business Case**") was prepared in satisfaction of certain obligations requiring a municipality to adopt a business case study before it establishes a corporation either alone or with one or more other public sector entities.[1]

II. Background

Union Water Supply System ("**UWSS**") was established by the Ontario Water Resources Commission (the predecessor of the Ontario Clean Water Agency ("**OCWA**")) in 1959, and supplies treated potable water to the municipalities of Leamington, Kingsville, Essex, and Lakeshore (collectively, the "**Municipalities**"). As evidenced by Transfer Order Union W1/1999, issued by the Ministry of Environment on January 8, 2001 (the "**Transfer Order**"), the Municipalities own UWSS as tenants in common, with each municipality owning an interest proportionate to its water consumption.

UWSS is an unincorporated collection of assets owned in common and used collectively by the Municipalities. The owners have agreed to share their joint property by voting on decisions through a group of appointed representatives (the "**Board**"). Neither UWSS nor the Board is a legal entity with all the rights and protections that come with that status. Although the Board has the power to budget, plan expenditures, and collect revenue, ultimately all decision-making authority comes from the Municipalities.

Recently, the legal structure of UWSS has been the subject of examination by the Municipalities. For the reasons that follow, the Municipalities have determined that it is advantageous to incorporate UWSS, and prepare this Business Case in support of such decision.

III. Key Legal Justifications

1. Separate Legal Entity

As indicated above, UWSS is presently unincorporated. In law, neither UWSS nor the Board is a legal entity, and lack the rights and protections that come with that status. As an unincorporated entity, UWSS is unable to issue or assume debt, and lacks the standing to sue and/or be sued in its own name. Due to these restraints, the substantial legal powers that UWSS has – such as

[1] See *O. Reg. 599/06: Municipal Services Corporations* at s. 6, made pursuant to the *Municipal Act, 2001,* SO 2001, c. 25.

contracting, buying property, and determining capital projects – are severely restricted, since UWSS cannot itself finance its own plans.

The practical impact is that the Board itself is very limited in the independent decisions it can make and implement. The essential decision-making power resides with the Municipalities, either directly through the need for financing or indirectly through the Board members appointed from their respective councils.

2. Liability

When a municipal water system is owned by a corporation other than a municipality, liability for a breach of section 19 of the *Safe Drinking Water Act* should (in theory at least) fall to the corporation as the owner of the system and its officers and directors. This should (in theory at least) protect the municipalities and their councillors from liability, except for those councilors actually on the Board of the corporation.

3. Ownership of Assets

Under the current structure, the Municipalities have a collection of assets that are used collectively, creating a number of municipal interests and financial obligations that reoccur on a regular basis, every time a financial decision must be made. Under the current structure, it is often unclear who owns and is responsible for which assets.

If UWSS were to incorporate, all assets would be owned and managed by UWSS Inc. The myriad of current municipal interests and financial obligations will need to be dealt with only once, to transfer the assets, rather than recurring every time a financial decision must be made. Thereafter the assets will be repaired, renovated, or replaced using UWSS Inc. funds and according to the priorities of the water system as determined by its officers and directors. This addresses the complex ownership issues.

Same Governance Structure

It is contemplated that the governance structure of UWSS Inc. would, to the extent that it is both legally possible and logical to do so, be modeled largely after the Transfer Order currently in place today.

The contemplated governance structure would be premised upon the following:

- “Tracking Shares” would be used to provide for each municipality ownership interest to be equal to its percentage of total water consumption as determined every four (4) years;

- Each municipality will be entitled to appoint one (1) representative to the Board, and a municipality will be able to appoint an additional representative for every 10% of the total water consumption (a municipality cannot have more than 50% of the Board positions regardless of its water consumption).

IV. Financial Justifications

Under the current structure, UWSS faces several financial challenges including:

- The inability to access grants and other types of funding available for water infrastructure from senior levels of government independent of the Municipalities;

- The inability to raise its own debt independent of the Municipalities;

- A revenue model which, absent additional Municipal debt, does not accommodate large-scale capital programs; and

- The attribution of UWSS debt to the Municipalities.

Many of the above captioned financial challenges are likely to be resolved by incorporating UWSS. By incorporating, UWSS Inc. would, among other things:

- Shift volume and credit risk to UWSS's account, not that of the Municipalities;

- With the agreement of Municipal auditors, attract Government Business Entity treatment and not be fully consolidated on the Municipal accounts;

- Have capital expenditures funded by capital reserves, funds from operations and new (not the existing Sun Life) debt; and

- Set rate revenue at the greater of:

    - that which results in zero net income – no loss – for UWSS according to Generally Accepted Accounting Principles; and

    - that which enables UWSS to meet the Debt Service Coverage Ratio as agreed upon with UWSS's lenders.

Further, financial analysis indicates that:

- The proposed financial structure offers potential rate savings to municipal ratepayers, compared to rates approved for 2017 and 2018 (adjusted for inflation);
- UWSS financial metrics – in particular, those related to new debt – are projected to be robust over a 50-year projection period under the proposed financial structure; and

- Obtaining stand-alone credit-worthiness is achievable for UWSS Inc. – something critical for the success of UWSS on a go-forward basis.

V. <u>Conclusion</u>

For all of the reasons given above, there is a strong business case to be made in favour of incorporating UWSS. Incorporating UWSS is arguably the most effective way to mitigate the associated legal and financial risks associated with the current unincorporated structure. For these reasons, it is recommended that each municipality adopt this business case study in order to establish UWSS as a corporation.

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Union Water Supply System

Financial Structuring Business Case

April 2018

For Municipal Consultation With The Public

pwc

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This report as well as the analyses and conclusions that are presented are based on information provided by Union Water Supply System as well as industry benchmarks and data available to PwC. We did not audit the accuracy or completeness of the above financial information. PwC reserves the right, without any obligation on our part, to revise the calculations contained herein or those to which we refer and, if we judge it necessary, to revise our conclusion in light of information which existed at the date of issuance, but which is brought to our attention subsequent to the issuance of this report.

In accordance with the conditions of our mandate, our findings cannot be interpreted as estimation or as an opinion on the fair market value of Union Water Supply System. This report must be considered as a whole. Selecting portions of the report or factors considered in it without considering all factors together could create a misleading view of the process underlying our conclusions.

The individuals who prepared the report did so to the best of their knowledge, acting independently and objectively. PwC's compensation is not contingent on an action or event resulting from the use of the report.

PricewaterhouseCoopers LLP
PwC Tower, 18 York Street, Suite 2600, Toronto, Ontario, Canada M5J 0B2
T: +1 416 863 1133, F: +1 416 365 8215, www.pwc.com/ca

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1. Executive summary

Summary of Conclusions

Union Water Supply System ("UWSS") has operated as a bulk water supply utility owned on a "tenants in common" basis by the Towns of Leamington, Kingsville, Essex, and Lakeshore (the "Municipalities") since a 2001 Transfer Order was issued by the Ontario Ministry of the Environment (now the Ministry of Environment and Climate Change). UWSS has no corporate existence; it cannot conduct business independent of the Municipalities. This structure gives rise to several financial challenges including:

- The inability to access grants and other types of funding available for water infrastructure from senior levels of government independent of the Municipalities;
- The inability to raise its own debt independent of the Municipalities;
- A revenue model which, absent additional Municipal debt, does not accommodate large-scale capital programs; and
- Attribution of UWSS debt to the Municipalities.

This Business Case addresses the financial challenges and proposes a new financial structure for UWSS. Legal analysis and other matters not discussed in this report are outside the scope of this Business Case. The Business Case is premised on the Municipalities establishing UWSS as a corporate entity.

In order for a new financial structure to be successful for UWSS and the Municipalities, UWSS must be credit-worthy on a stand-alone basis. Our analysis of potential credit-worthiness indicates that such stand-alone credit-worthiness is achievable for UWSS.

Also, in order for a new financial structure to be successful for UWSS and the Municipalities, UWSS and the Municipalities must achieve a commercial structure under which UWSS debt is properly accounted for as non-recourse to the Municipalities. Our accounting analysis indicates that this too is achievable.

The proposed commercial structure has the following features:

- The essential commercial relationship would be between UWSS and end-use water customers in the Municipalities (who receive UWSS bulk water);
- The Municipalities would act as agents of UWSS in facilitating this relationship;
- The Municipalities would provide billing services as agreed upon with UWSS;
- Volume and credit risk would be to UWSS's account, not that of the Municipalities; and
- UWSS would, with the agreement of Municipal auditors, attract "Government Business Entity" ("GBE") treatment and not be fully consolidated on the Municipal accounts.

The proposed financial structure has the following features:

- Initial capitalization: The Municipalities would convey the UWSS assets to an incorporated UWSS in return for shares in UWSS. UWSS is contemplating a share structure whereby each Municipality's ownership will continue to be based on its consumption through the use of tracking shares. To preserve the existing UWSS ownership model under this structure, tracking shares can be incorporated into the corporate framework, and provide for each Municipality's ownership interest to be equal to its percentage of total water consumption, adjusted every 4 years, much like the current framework;
- Approved capital expenditures would be funded by capital reserves, funds from operations and new (not the existing Sun Life) debt;
- The UWSS revenue model would set rate revenue at the greater of:
    - That which results in zero net income – no loss – for UWSS according to Generally Accepted Accounting Principles; and

    - That which enables UWSS to meet the Debt Service Coverage Ratio (DSCR") as agreed upon with UWSS's lenders;
- UWSS operations would continue as at present, or otherwise as determined by the UWSS Board; and
- Both "source to tap" (integration of UWSS bulk water services with Municipal water distribution) and rate structures other than a uniform rate per unit volume are achievable under the proposed financial structure at the discretion of the Municipalities.

Financial analysis indicates that the proposed financial structure offers potential rate savings to Municipal ratepayers, compared to rates approved for 2017 and 2018 (adjusted for inflation). This financial analysis also indicates that UWSS financial metrics – in particular, those related to new debt – are projected to be robust over a 50-year projection period under the proposed financial structure.

Recommendations

This Business Case recommends that, if the Municipalities establish UWSS as a corporate entity, UWSS and the Municipalities:

- Adopt the proposed financial structure as set out in Sections 6 and 9;
- Adopt the proposed commercial structure as set out in Section 5; and
- Proceed to implementation as set out in Section 10.

Task or Milestone	Preliminary Timing
Financial market sounding – gauging lender interest and most likely lenders; and gaining detailed insight into the required/available provisions of key agreements	• Q1-Q2 2018
Discussion and agreement with Municipal auditors concerning commercial structure and GBE treatment; adjust commercial model if required	• Q1-Q2 2018
Development of the agreement between UWSS and the Municipalities	• Q1-Q2 2018
Development of a Master Trust Indenture, a document which will govern all new debt upon implementation. This will likely involve negotiations with key prospective lenders	• Q2-Q3 2018
Exploration (and potentially negotiation) with Sun Life concerning transfer of obligation to UWSS	• Q2-Q3 2018
Design and organization of new billing and other administrative measures required for new commercial structure	• Q2 – Q4 2018
Decision on management of Windsor Family Credit Union funds – leave invested to maturity or redeem early (possibly with an interest penalty)	• Q3 2018 or after
Updating of UWSS financial projections based on latest information (including volume outlook, investment, and debt requirements)	• Q3 2018
Development and negotiation of lending agreements for initial new debt to be issued	• Q3 2018
Execution of agreements: • UWSS agreement with Municipalities	• Q4 2018

• Supporting service agreements between UWSS and Municipalities (as determined by final commercial structure) • Master Trust Indenture • Initial lending agreements • (Possibly) agreement concerning existing Sun Life debt	
Funds available – new debt	• January 2019
Go-live for new commercial structure including billing and other administration	• January 2019 or before
New revenue and rate model active	• 2019 fiscal year

2. Background and Current Situation

This section reviews the history of Union Water Supply System ("UWSS"), and highlights the challenges faced by UWSS and its owner municipalities (Leamington, Kingsville, Essex, and Lakeshore, collectively the "Municipalities").

Historical and Early 1990's

Historically, the Province of Ontario (the "Province") constructed, owned and operated selected municipal water systems, directly through the Ontario Water Resources Commission (OWRC). The Union Water System (now the Union Water Supply System, "UWSS") was originated by the OWRC in 1960. In 1974 the Province of Ontario created the Ministry of the Environment ("MOE", now the Ministry of the Environment and Climate Change). All assets owned and operated by the OWRC, including UWSS, were transferred to the MOE and the OWRC was subsequently dissolved.

In 1993, the Province created the Ontario Clean Water Agency ("OCWA") to assume its water and wastewater responsibilities. In 1994, OCWA signed an agreement with the then municipalities of Essex, Gosfield North, Gosfield South, Leamington, Maidstone, Mersea, Kingsville, and Rochester; and with H. J. Heinz Company of Canada Ltd ("Heinz"). This agreement provides for matters including:

- An expansion to the shared water supply system (identified as the Union Water System);
- Ownership by OWCA and OCWA's water supply responsibilities; and
- Rate-setting and rate payment by the signatory municipalities.

The agreement provided for an initial five year term with three optional renewals taking effect absent termination by the signatories.

The Transfer Order

The Province elected to exit ownership (but not operation) of water and wastewater systems according to a policy adopted in the late 1990's.

Ownership of UWSS was conveyed to the Municipalities on January 8, 2001. UWSS ownership was on a "tenants in common" basis; UWSS did not and does not have a corporate existence. OCWA operates the UWSS system under contract to the Municipalities; rate-setting and budgeting for capital and operations are the responsibility of UWSS subject to Board approval.

Supply to Heinz continued according to the 1994 agreement described above.

The framework for governance of UWSS was set out in this order, and continues to the present. Ownership of UWSS was and is according to respective shares of UWSS consumption, and is reset every four years. A 12-person Board structure was established, with Board seats allocated according to ownership (with a 6-seat cap for any individual Municipality).

The UWSS rates were and are set (and approved by the UWSS Board) based on:

- Operating costs;
- Capital costs and contributions to capital reserves;
- Debt service (interest and principal); and
- Other Board-approved costs.

A special Heinz rate and area-specific rates were provided for.

Initial Financing

Ownership of UWSS was not free to the Municipalities. In order to pay OCWA for the UWSS assets, the Municipalities incurred debt of approximately $18.5 million. This debt was arranged by MFP Structured Finance Ltd. ("MFP"), and purchased by Mutual Life Assurance of Canada (now part of Sun Life).

MFP was later found to have misrepresented the cost of this debt. In a 2006 settlement, the Municipalities received approximately $10 million. This amount is still held for UWSS in a deposit instrument at the Windsor Family Credit Union. Debt service payments were renegotiated with Sun Life; these payments are approximately $2.5 million per annum and the debt matures in 2026. UWSS funds the debt service.

The Municipalities have, since 2001, issued debt on behalf of UWSS, and UWSS has funded debt service. As at the end of 2016, approximately $14.5 million of Sun Life debt is outstanding; the Municipalities have no other debt or cash related to UWSS.

Portrait of UWSS in 2016

At the end of 2016, UWSS had the following characteristics:

Characteristic	UWSS as at the end of 2016
People served	• Approximately 65,000 across the four Municipalities
System connections	• The Municipal water systems of Leamington, Kingsville, Essex, and Lakeshore
Principal assets	• Non-linear assets: water treatment plant, low-lift pumping station, booster pumping station, in-ground reservoir, four water towers • Linear assets: approximately 125 km of "transmission" water main
Board seats[1]	• Leamington: 6 • Kingsville: 4 • Essex: 1 • Lakeshore: 1
Staff	• Two full time (General Manager and Executive Assistant) • Legally, these staff are employed by the Town of Leamington
Operations and maintenance	• OCWA, under contract
Asset value	• Net book value $41 million • Replacement cost: $112 million
System Flow	• Approximately 3.3 billion gallons
Sector share of flow (2013, most recent available)	• Residential: 33% • Commercial: 13%

[1] We understand that, as of January 1, 2017, Kingsville obtained one additional Board seat, for a total of five.

	• Greenhouses: 37% • Canneries and other: 17%
Revenues	• Rate revenue: $8.9 million • Interest income: $0.4 million • Ancillary revenue: <$0.1 million
Capital accounts	• Depreciation: $1.2 million • Capital expenditure: $0.6 million
Debt service	• Interest expense: $1.6 million • Principal repayment: $0.7 million • Total debt service: $2.3 million
Rate revenue model	• Operations, maintenance and administrative costs; plus • Debt service (principal and interest); plus • Approved capital expenditures

Challenges

UWSS and the Municipalities face a number of challenges going forward.

The Capital Program

The UWSS approved 6-Year Capital Plan calls for over $26 million in expenditures. This amount is thought by UWSS to exceed available cash reserves, plus the amount that could be included in annual revenue without causing "rate shock" (a sharp increase in rates from one year to the next).

Longer Term Capital Replacement and Reserves

In a water utility, assets are long-lived – a "short" life may be 15 years, while a "long" life may be 75 years. UWSS's linear assets have an assigned life of 75 years.

At some point, all assets require replacement or renewal. If a utility has cash reserves –in Ontario, some municipal water systems do and some do not – these reserves may be used to fund renewal or replacement. If reserves are nil or insufficient, funds must be provided from another source, such as grant funding (which may not be available when needed) or municipal borrowing (recovered in rates over a period of time).

UWSS does have cash reserves:

- $10 million in a deposit instrument maturing in 2021;
- An operating fund of $1.7 million; and
- Approximately $4 million in other cash capital reserves.

However, given the UWSS short-term capital plan described above, UWSS cash capital reserves will be fully depleted by the early 2030s.[2]

Grant Funding

As UWSS does not have a corporate existence, it cannot apply for grant funding from senior levels of government. The Municipalities must apply on UWSS's behalf. This can be a cumbersome process, and UWSS requirements would compete with other Municipal projects for available grant funding.

While this Business Case does not assume the availability of any grant funding (in the interests of conservatism, and as the availability of grant funding is unpredictable), the ability of UWSS to access available grant funding in the future is an important objective.

It is important to note that UWSS, if incorporated, could access grant funding with no change to the financial structure.

Required Revenue Determination and Rates

The revenue model of UWSS directly includes capital expenditure. This is in contrast to, for example, electrical Local Distribution Companies ("LDCs") which recover capital costs in arrears (in the case of LDCs, with a return to debt and equity).

In years in which cash reserves are not available, this model is not compatible with a large capital program in a single year – this would result in a sharp increase in required revenue and therefore rates (this is commonly referred to as "rate shock"). The nature of UWSS's business is that such large capital expenditures are required on occasion; for example, the UWSS 6-Year Capital Plan calls for expenditures of approximately $7 million in 2019, and the same amount again in 2021.

From a rate-making standpoint, UWSS currently has a largely uniform rate per unit volume (measured at the perimeter of the UWSS system). In the past, there have been rate structures under which different users bore different costs, depending in part on what assets served each user.

Debt and Debt Attribution

As UWSS does not have a separate corporate existence, its debt is consolidated on the accounts of the Municipalities (in proportion to ownership). As Ontario municipalities have a provincially-mandated maximum debt amount (relative to receipts), debt capacity has value to municipalities.

Our consultations indicate that the existing UWSS debt is not an immediate concern for the Municipalities; however, having the existing UWSS debt attributed solely to UWSS would be desirable.

With respect to debt which may be required in the future (projections indicate this could be as early as 2019), the existing process among UWSS and the Municipalities calls for:

- Approval of the UWSS capital plan and resulting requirement for new debt;
- Approval for the new debt by each Municipality, for the applicable proportional share;
- Issuing the new debt; and
- Servicing the debt by UWSS, with cash flow to each Municipality according to its proportional share.

[2] A working capital and operating cash reserve of approximately $2 million is maintained.

Consultations indicate that the potential new debt in the short term is feasible from the standpoint of the Municipalities (from a debt capacity standpoint); however, UWSS having the ability to issue new debt with recourse only to UWSS would be desirable.

Potential complexities may arise should a capital project not benefit all Municipalities equally (or at all); in this case, reaching agreement to undertake new debt may be challenging under the existing model.

"Source to Tap"

As described above, UWSS is a bulk water system with no responsibility for distribution of water to end customers. UWSS and the Municipalities have considered and rejected the potential for UWSS to assume responsibility for the Municipal water distribution systems as well as bulk supply. This is known as the "source to tap" option. UWSS and the Municipalities have required that any change to the UWSS financial structure not impede development and implementation of "source to tap" should this option be considered in the future.

The Legal Analysis

In 2015, UWSS had a legal analysis undertaken by William Willis, now the founding partner at Willis Law in Windsor. This analysis examined the option of an incorporated legal structure for UWSS and addressed such matters as:

- Liability of the Municipalities and UWSS Board members;
- Feasibility of an incorporated UWSS from a licencing standpoint;
- UWSS's inability to issue debt and therefore finance its own operations;
- Governance and decision-making;
- Potential risks associated with separate ownership and operation of UWSS and the Municipal water systems; and
- How an incorporated Municipal Services Corporation (MSC) which would succeed UWSS – potentially "UWSS Inc." – may be established, including the initial capitalization by conveyance of existing UWSS assets to the successor in return for shares in the new corporation.

The recommendations of this analysis were that the Municipalities:

- Establish UWSS as a Municipal Services Corporation as this is defined in Ontario legislation;
- Transfer the UWSS assets held on a "tenants in common" basis by the Municipalities to the UWSS corporate entity in return for shares;
- Consider the inclusion on the Board of industry experts as well as Municipal appointees;
- Establish UWSS's mandate, and its delegated authority to conduct its business under Board supervision and within the Ontario legislated and regulatory environment; and
- Consider the "source to tap" option as described above.

Premise for This Business Case

The premise for this Business Case is:

- IF the UWSS shareholders undertake the adoption of a corporate structure for UWSS, broadly as set out in the legal analysis of 2015 as modified by the UWSS Board and Municipalities;
- AND if UWSS shareholders wish to explore financial structuring options to address the financial challenges described above;

- THEN this Business Case may be considered as a potential path forward with respect to financial structure.

3. Financial Structuring Objectives

This section describes the objectives we set in designing the proposed financial structure for UWSS.

Objectives

Given the background and challenges set out in Section 2, we set the following objectives for design of a potential new financial structure for UWSS[3].

Ability to Issue New Debt

UWSS must, under a proposed financial structure, be able to issue debt to finance its operations (according to plans and budgets approved by its Board). This in turn requires that UWSS be credit-worthy – that is, its debt is attractive to lenders in the financial markets, so that UWSS may borrow as needed on reasonable terms (notably interest rates and principal repayment term).

Attribution of Debt Solely to UWSS

A proposed financial structure must support the attribution of UWSS debt solely to UWSS and not to the Municipalities:

- New debt; and if possible
- The Sun Life debt as well.

Ability to Accept Grant Funding

A proposed financial structure must be able to access grant funding if it is available. UWSS indicates that infrastructure grants from senior levels of government are available to municipalities directly, and to Municipal Services Corporations, but not to UWSS as an entity without corporate existence. At present, a grant application for UWSS would have to come from the Municipalities; this s complex and may put UWSS priorities in conflict with Municipal infrastructure grant priorities.

"Source to Tap"

A proposed structure must be compatible with "source to tap" should the Municipalities elect to take up this option in the future.

No "Rate Shock"

A proposed financial structure must minimize required rates, and avoid "rate shock" to the extent possible given the costs to be borne by UWSS in the future.

Non-Uniform Rate Structures

For purposes of this Business Case analysis, a uniform rate per unit water volume is assumed. However, a proposed financial structure must be compatible with non-uniform rate structures should UWSS and the Municipalities elect to go this route.

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[3] For the balance of this Business Case, UWSS will refer to an incorporated entity succeeding the existing UWSS.

Summary

The objectives described above formed the basis for design of the proposed financial structure. Achieving these objectives requires the support of two principal attributes for UWSS:

- Credit-worthiness on a stand-alone basis (as described in Section 4); and
- Commercial structuring to achieve accounting treatment as a Government Business Entity (as described in Section 5).

One potential objective is notable by its absence – a profit flow for the Municipalities. The Municipalities have never earned a return on their share of UWSS, and consultations indicate that earning a return (funds from ratepayers that would accrue to the tax base) is not an objective for a new financial structure. Accordingly, Municipal profit is not an objective driving the design of the proposed financial structure.

4. Credit-Worthiness

This section defines credit-worthiness for the purpose of this Business Case, and sets out the requirements for credit-worthiness which the financial markets will likely apply to UWSS.

What Is Credit-Worthiness for UWSS?

An entity may be considered credit-worthy if:

- It can borrow as it needs to, in order to finance its operations (and specifically its approved capital plans), under most market conditions[4];
- The terms and conditions (notably the interest rate and principal repayment provisions) are reasonable – broadly equivalent to terms and conditions available in to comparable borrowers, and stable over time in most financial market conditions.

At present, lenders for UWSS look directly to the Municipalities for assurance that debt principal and interest (together, debt service) will be paid according to the lending agreements. Municipalities are credit-worthy to the extent that their ability to realize tax and other revenue is sufficient to fund all municipal obligations including debt service, with a safety factor. Ontario legislation caps municipal borrowing at levels viewed as prudent by the financial markets.

In order for the objectives described in Section 3 to be achieved, UWSS must be credit-worthy on a stand-alone basis. For lending to utilities such as UWSS, lenders can only look to the sufficiency and reliability of revenues for assurance of debt service – in a default situation, the assets (unlike, say a vehicle) cannot be seized and sold to other buyers.

Credit Positives for UWSS

It is reasonable for UWSS to expect a positive reception from the financial markets as a stand-alone borrower, if properly structured and operated.

A Utility with Monopoly Access to Customers

Utilities are generally attractive to lenders as they have monopoly access to their customers – they do not face competition (although they are constrained by regulation or other means). Although actual consumption (in UWSS's case, bulk water) may vary, utilities generally recover their costs in the form of a required revenue (that is, the revenue that achieves the regulatory or otherwise agreed-to conditions), which is then converted into rate(s) per unit volume – ratepayers bear the risk of volume variations over time.

Defined Pricing Power

Utilities have defined pricing power – that is, the power to recover costs and set rates constrained by a predictable set of rules, at a level sufficient to meet all obligations, without the prospect of external interference (but of course subject to Board oversight).

UWSS at present recovers costs as described in Section 2:

- Operations, maintenance and administrative costs; plus

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[4] During periods of financial market turmoil, such as experienced in 2007 – 2009, many borrowers had difficulty accessing new debt.

- Debt service (principal and interest); plus
- Approved capital expenditures

As set out in Section 6, the proposed financial structure will incorporate a different, but equally defined, required revenue model. The proposed revenue model would be established contractually as described in Section 9.

LDCs recover costs according to a different formula:

- Operations, maintenance and administrative costs; plus
- Depreciation expense; plus
- Interest expense; plus
- A return to equity calculated according to regulated parameters; plus (if applicable)
- An allowance for cash taxes paid

The formula is different, but it is defined and reliable over time. In the case of LDCs, credit ratings (DBRS in this case) range from A (low) to A (high) for major bond-issuer LDCs[5].

Conservative Capital Structure

UWSS had, at the end of 2016, a debt : equity ratio of 25% debt : 75% equity. The regulated debt : equity ratio for Ontario LDCs is 60% debt: 40% equity.

As described in Section 6, the proposed financial structure does not include a covenant concerning capital structure. However, long-term financial projections described in Section 7 indicate a UWSS capital structure with less debt than specified for Ontario LDCs.

Strong Debt Service Coverage

As described above, lenders require a "safety factor" between a borrower's debt service obligations, and the borrower's means to make debt service payments. This safety factor is "debt service coverage", and it expressed as a ratio referred to as the Debt Service Coverage Ratio ("DSCR").

In 2016, UWSS (having only the Sun Life debt to service) had a DSCR of approximately 1.9x. This is calculated as:

- "Cash Available for Debt Service":
  - Revenues; less
  - Operations, maintenance and administrative costs; divided by
- Debt service:
  - Interest; and
  - Required principal repayment.

[5] DBRS, May 2017

This level of DSCR is more than the market requires, in PwC experience. DSCR of 1.25 to 1.50 will support investment-grade treatment in the financial markets; we have used 1.50 in our analysis in the interest of conservatism.

Priorities for Credit-Worthiness

In designing the proposed financial structure, we have considered two principal attributes:

- UWSS must, in all periods, be able to earn required revenue which enables it to at least break even on a "Generally Accepted Accounting Principles" ("GAAP") basis – this includes recovery of depreciation expense (which the current UWSS revenue model does not); and
- UWSS must, in all periods, be able to earn required revenue which enables UWSS to achieve a market-appropriate DSCR (for which we have used 1.50 in our analysis).

These conditions respond to lenders' most pressing requirements:

- High-quality borrowers do not lose money; and
- Borrowers always have the capability to pay debt service – interest and required principal repayment – with a safety factor.

The manner in which these requirements are incorporated into the proposed financial structure is set out in Sections 6 and 9.

5. Accounting Considerations

An important objective of UWSS's for the Municipalities is that UWSS debt be considered an obligation solely of UWSS, and not be consolidated on the accounts of the Municipalities.

This section addresses the requirements for achieving this accounting treatment and discusses the commercial structure of UWSS, and its relationship with the Municipalities and with end customers is such that UWSS debt is properly accounted for as recourse only to UWSS and not consolidated (on a line-by-line basis) in Municipal accounts.

Accounting Principles

Canadian accounting principles contain guidance in the areas of consolidation, reporting relationships and government entity types which can assist in determining the accounting treatment with respect to the attribution of debt in circumstances similar to those of UWSS. In particular, guidance is provided concerning:

- "Government Business Entity" (or "GBE") treatment and the requirements to achieve this treatment; and
- "Agent versus principal" relationships

Government Business Entity

A Government Business Entity (or "GBE") is a business owned by government which is financially self-supporting. GBEs are accounted for by its government owner(s) on an "equity" basis – that is, the value of the equity ownership (i.e. net assets) stake in the GBE is recorded as an asset in the balance sheet. As a result, the debt of the GBE is not classified as debt in the government owner(s) balance sheet but rather is included as part of the governments net investment of the GBE (reducing the net asset value). Therefore, GBE treatment would achieve the objective of the Municipalities with respect to accounting treatment/classification of UWSS debt.

Guidance for qualification as a GBE is set out (in part) below:

28 A government business enterprise is an organization that has all of the following characteristics:

(a) it is a separate legal entity with the power to contract in its own name and that can sue and be sued;

(b) it has been delegated the financial and operational authority to carry on a business;

(c) it sells goods and services to individuals and organizations outside of the government reporting entity as its principal activity; and

(d) it can, in the normal course of its operations, maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity.

In the electricity market, municipally-owned local distribution companies ("LDCs") are commonly treated as GBEs.

Agent versus Principal

In assessing the relationship for financial reporting purposes between UWSS and the Municipalities (i.e. whether or not UWSS is a GBE to the Municipalities) an important consideration is the relationship among UWSS, the Municipalities, and the end customers using UWSS-supplied water. Specifically, are the Municipalities customers of UWSS, or agents of UWSS in a commercial relationship essentially between UWSS and end water customers?

If the Municipalities are agents of UWSS, then they may qualify for "Net Revenue Reporting", and would record only the net revenue (if any) from sales of UWSS water to end customers. UWSS would be considered a supplier to end customers, not the Municipalities.

Key requirements[6] for the Municipalities to be considered for treatment as an agent of UWSS include:

- UWSS (not a Municipality) is the "obligor" – that is, responsible for providing the product or service (in the case of UWSS, bulk water);
- The Municipalities earn a fixed amount (not mandatory) – a fixed amount per account, per year, or other unit of measure in exchange for acting as agent of UWSS. The municipalities do not bear the risks of profit and loss related to the product or service being provided; and
- Credit risk related to the provision of bulk water is not borne by the Municipalities. Bad debt risk is ultimately borne by UWSS.

Conversely, UWSS would be considered the principal provider (as desired) if it has:

- The primary responsibility for providing bulk water to its customers (local delivery being considered a separately billed service);
- Inventory risk – the risk that end customers may or may not order or use a given volume of product;
- Latitude in setting prices (and not be directed concerning pricing by the Municipalities[7]); and
- Exposure to credit and collection risk.

Options for Commercial Structure

UWSS and the Municipalities may structure their affairs in several different ways, with varying potential accounting treatment.

Option #1: Current Structure

In this structure:

- UWSS sells bulk water to the Municipalities according to the existing bulk metered volume measurements;
- The municipalities take title to the bulk water, and resell to their end water customers according to residential and business metered volume measurements. UWSS charges are not shown as a separate billed item to end customers;
- Credit and collection risk is borne by the Municipalities; UWSS is paid according to the bulk metered measurements and has no commercial relationship with end water customers.

Option #2: "LDC" Structure

In this option:

- UWSS has a direct relationship with individual metered end customers. A supply agreement with these customers may be required;
- UWSS bills each end customer according to residential and business meters (rather than the existing bulk meters);

[7] Municipal representation on the UWSS Board would not compromise UWSS's latitude in setting prices; an established revenue determination mechanism as set out in Sections 6 and 8 would reinforce UWSS pricing authority

- Accounts Receivable ledgers are maintained (perhaps by Municipalities as a service to UWSS);
- Billing may be done (for a fee which would be a recoverable cost for UWSS) by Municipalities on behalf of UWSS. UWSS charges would show separately from other Municipal billed items (such as water distribution or perhaps electricity if this is billed with water);
- As UWSS charges are collected, collected funds are remitted to UWSS. The Municipalities do not guarantee UWSS collections.

Option #3: Municipalities as Agents of UWSS

In this option:

- UWSS has a direct relationship with individual metered end customers. A supply agreement with these customers may be required (potentially a significant challenge given the number of customers);
- End customer volumes (which will be different than bulk water metered volumes due to system losses) are the basis for billing based on end user metered volumes. These volumes are shared between UWSS and the Municipalities;
- The Municipalities bill individual end users according these end user metered volumes, with UWSS charges being an item separate from other billed charges;
- UWSS invoices the Municipalities for bulk water according to end user metered volumes, and the Municipalities pay such invoices;
- Municipalities charge back UWSS for any UWSS end customer charges which prove to be uncollectible according to Municipal policy;
- Municipalities charge UWSS for services provided including:
    - Billing;
    - Administration of collections;
    - The time value of money between the UWSS billing date and the anticipated date of collection from end customers; and
    - Other items as agreed upon by UWSS and the Municipalities;
- UWSS includes these charges in its cost base to be recovered from its end customers.

Potential Qualification for GBE Treatment

The potential for these options to qualify for GBE treatment is as follows:

Scenario	Separate Corporate Entity	Delegated Financial and Operational Authority	Goods and Services Provided Principally to Customers Other Than Government	Maintain Operations and Meet Liabilities from Revenues Other Than Government	Comments and Cautions
Option #1: Current Structure	OK	OK	Fail – Municipalities are only customers	Fail – revenue source is only from Municipalities	Easiest implementation but does not achieve a key objective

Scenario	Separate Corporate Entity	Delegated Financial and Operational Authority	Goods and Services Provided Principally to Customers Other Than Government	Maintain Operations and Meet Liabilities from Revenues Other Than Government	Comments and Cautions
Option # 2: "LDC" Structure	OK	OK	OK: UWSS bills to and collects from end customers directly	OK: No direct financial relationship with Municipalities, other than as normal course billed customers	Greatest available assurance of GBE treatment; however, potentially significant administrative load on UWSS (and possibly Municipalities as service providers)
Option #3: Municipalities as agents of UWSS	OK	OK	OK: Essential commercial relationship is with end customers	OK: Key risks are to the account of UWSS	Some administrative changes, but less than in Option #2.

Other Considerations

Under any structure, if UWSS requires investment of Municipal equity it may fail the test of "Maintain Operations and Meet Liabilities from Revenues Other Than Government". The financial structure and financial projections in this Business Case (see Sections 6 - 9) do not anticipate this need for equity investment; however, the Municipalities should keep this consideration in mind going forward.

Summary

At this Business Case stage, it appears that Option #3 is a leading candidate for investigation and adoption. As a practical matter, one option should be implemented for all Municipalities.

Both Options #2 and #3 will require socialization of the new structure with end customers, and (potentially) the execution of connection agreements between UWSS and end customers.

Requirements to Achieve Proposed Commercial Structure

In the end, the determination of whether or not a structure meets the requirement for GBE treatment will be that of the Municipalities' auditors. Therefore, if the Municipalities elect to proceed on a course indicated by this Business Case, the following will be required:

- The Municipalities engage their auditors concerning the selected structural option and GBE treatment;
- The need for a connection agreement between UWSS and end customers be determined, and (if required) the form of this agreement be developed;
- Planning be undertaken to socialize the new commercial structure with end customers, and (ultimately if required) achieve execution of these agreements; and
- UWSS maintain a forward financial plan that will highlight the potential need for Municipal equity investment in advance, with a view to advance planning to avoid a situation in which GBE qualification fails.

6. Financial Structure

This section develops the financial structure recommended in this Business Case.

It is assumed that UWSS and the Municipalities will obtain advice concerning legal structure, ownership, governance, liability and related matters from counsel. This Business Case and this section address only financial structuring.

Drivers of the Financial Structure

The proposed financial structure is designed to achieve objectives in two areas:

- Credit-worthiness (Section 4); and
- GBE treatment (Section 5).

Recommended Financial Structure

The financial structure proposed in this Business Case is as follows:

Opening Assets

Upon the establishment of UWSS under a corporate structure, the Municipalities will transfer all UWSS-related assets to UWSS in return for shares. UWSS is contemplating a share structure whereby each Municipality's ownership will continue to be based on its consumption through the use of tracking shares. To preserve the existing UWSS ownership model under this structure, tracking shares can be incorporated into the corporate framework, and provide for each Municipality's ownership interest to be equal to its percentage of total water consumption, adjusted every 4 years, much like the current framework.

Opening Liabilities

If achievable, UWSS will assume legal liability for the Sun Life debt; this will require negotiation with Sun Life and may or may not be achievable.

Other (current) liabilities such as accounts payable would also be assumed by UWSS.

Other Undertakings

UWSS would assume legal responsibility for the OCWA contract and other undertakings.

The existing two employees of OWSS (who are currently formally employed by Leamington) would be employed by UWSS directly.

UWSS and the Municipalities would enter into an agreement as set out in Section 9.

Revenue and Rate Model

The required revenue to which UWSS will be entitled according to its agreement with the Municipalities would be the greater of that which results in:

- A break-even net income under GAAP (the "break-even test"); and
- A DSCR equal to that agreed to with UWSS lenders (the "DSCR test").

A uniform rate would be constructed as at present – required revenue divided by flow – however, the flow would be at the end user point, not the UWSS-Municipality billing points as at present. This is to facilitate the commercial structure according to Option #3 in Section 5.

The UWSS Board may, at its option, also set rates higher than those described above, in the interests of avoiding fluctuating rates. An example may be rates which are equal to the prior year plus inflation. In the proposed structure, UWSS would not have the latitude to set rates lower than those which meet both the "break-even test" and the "DSCR test" without explicit permission of its lenders.

Funding of Capital Expenditures

The capital program will at all times be approved by the UWSS Board, as at present.

Funding of the capital program would be:

- First from cash from operations;
- Then from available capital reserves;
- Then by issuance of new debt.

Capital investment gives rise to depreciation expense regardless of how the investment is financed (reserves or debt). This depreciation expense is recovered in revenue (according to the "break-even" test) over the life of the asset.

New debt gives rise to debt service – interest and principal. This debt service, multiplied by the applicable DSCR, gives rise to a recoverable cost according to the "DSCR test".

Ongoing Operations

The principal operating relationship with OCWA would continue essentially unchanged, but the OCWA contract would be with UWSS as a stand-alone contracting entity.

Any services provided by the Municipalities to UWSS would continue (until changed by agreement if at all), but would be articulated in formal agreements.

Summary

We have conducted our financial analysis in Section 7 based on the proposed financial structure described above; Section 8 evaluates assesses the achievement of the objectives set out in Section 3 by the proposed financial structure.

7. Financial Analysis

This section sets out the projected financial results should the recommended financial structure be implemented.

Methodology Highlights

A financial modeling analysis was undertaken in support of this Business Case, addressing the following items and incorporating information provided by UWSS:

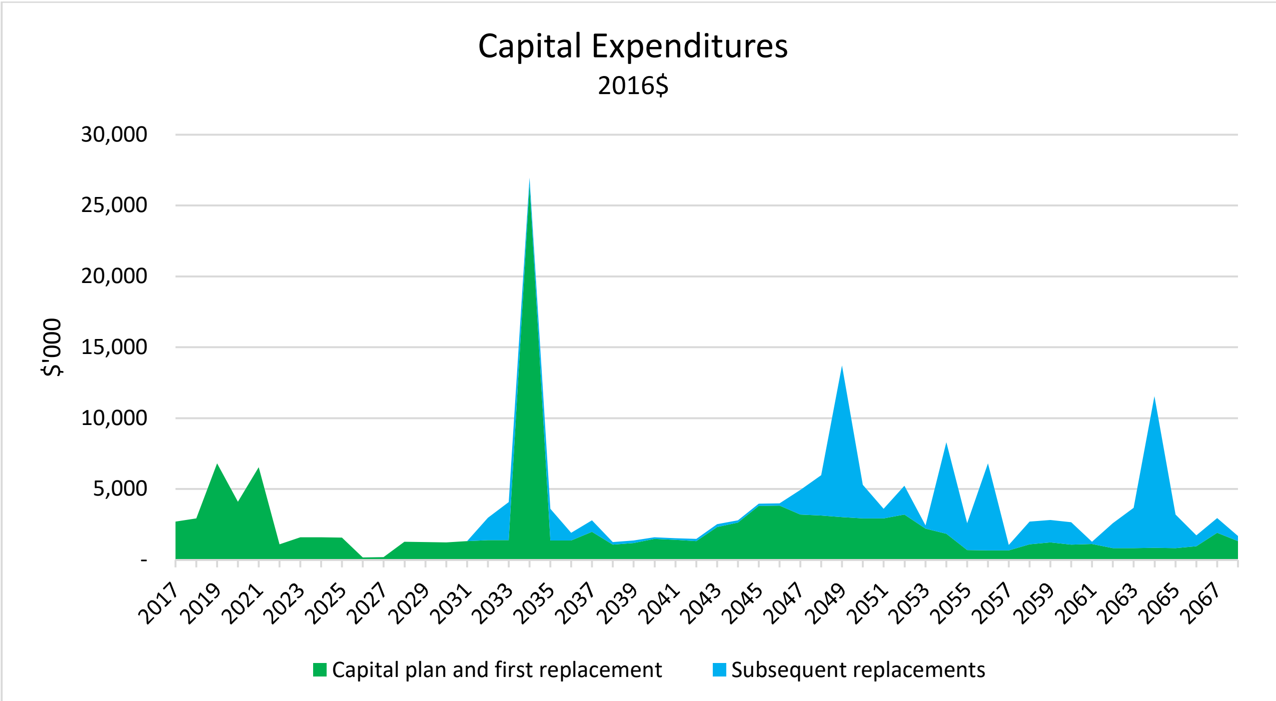
Category	Specific Items
Capital Items	• Capital expenditure: o 2017 and 6-year approved Capital Plans o Replacement of assets as at the end of 2016 o Water treatment plant expansion ~2034 • Depreciation
Other Costs	• Operations, maintenance and administrative costs
Financial Items	• The Windsor Family Credit Union deposit instrument • Sun Life debt • New debt: o Interest rates o Principal repayment • Interest earned on reserves
Rates and Revenue	• Rates for 2017 and 2018 as per approved plans • Rate-making thereafter according to the proposed financial structure
Volume	• Volume growth assumption, consistent with planning the water treatment plant expansion

Results

The results from the financial analysis are set out below.

Capital Expenditure

Capital expenditure over time, here shown in 2016 dollars, are projected as follows:



Looking ahead, there are clearly some years of very high capital expenditures – “spikes”. These are driven by:

- The 2017 and 6-year capital plans;
- The water treatment plant expansion projected for 2034; and
- Replacement of these major expenditures at the end of useful life.

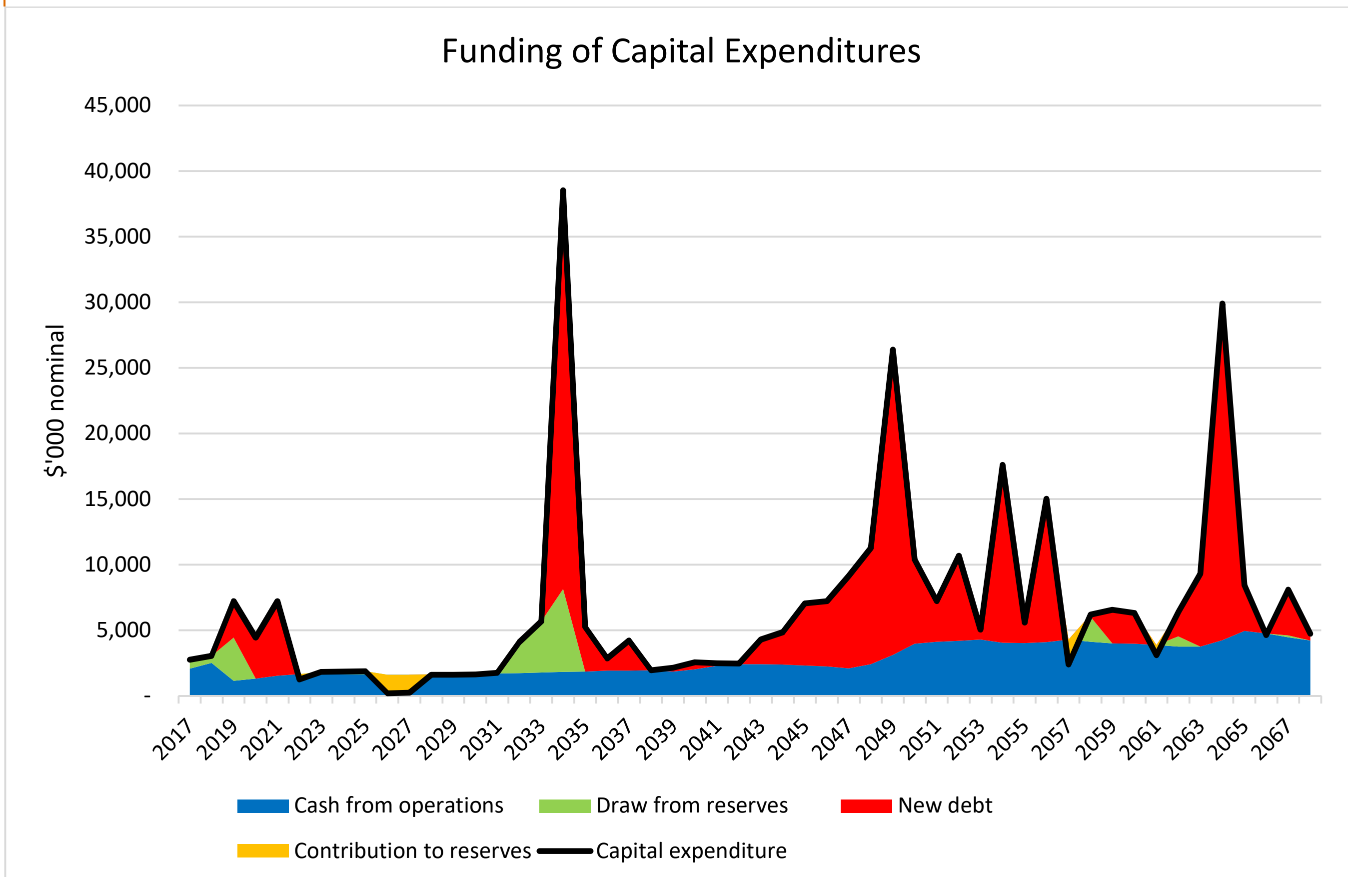
The total capital expenditure, in 2016$, over a 52-year projection period (2017 and 2018, plus 50 years of the proposed financial structure) is nearly $200 million.

Funding of Capital Expenditures

How are these capital expenditures funded? The chart below shows funding of capital expenditures (here in nominal, inflated dollars) by:

- Reserves;
- Funds from operations; and
- New debt.

In some years, funds from operations contribute to reserves.

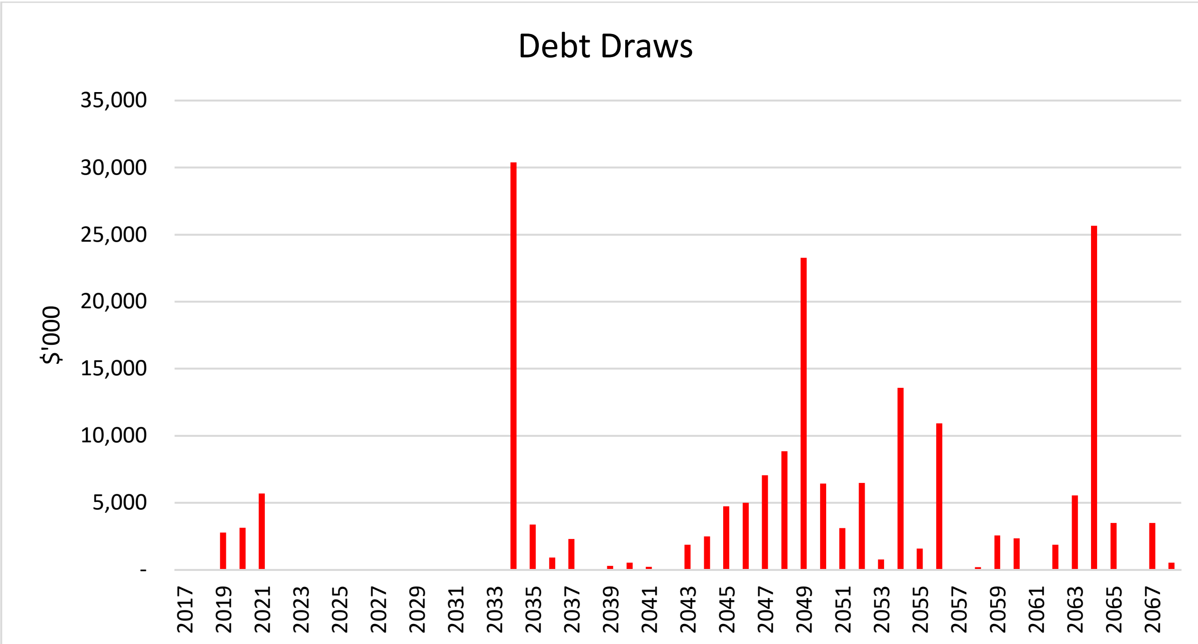


Over time, funding is provided from a variety of UWSS sources (in this chart, dollars are nominal including inflation):

- Operations provide some funding, as is the case at present. Even in years in which the "break-even test" prevails for revenue, UWSS recovers depreciation expense. This is a non-cash expense, and therefore provides UWSS with cash which may be deployed to fund capital expenditures;
- Reserves – both the Windsor Family Credit Union funds and other capital funds (but not the operating reserves) are available in some years. Further, in some years of low capital expenditure capital reserves are increased;
- New debt provides roughly 55% of funding for capital expenditures over time.

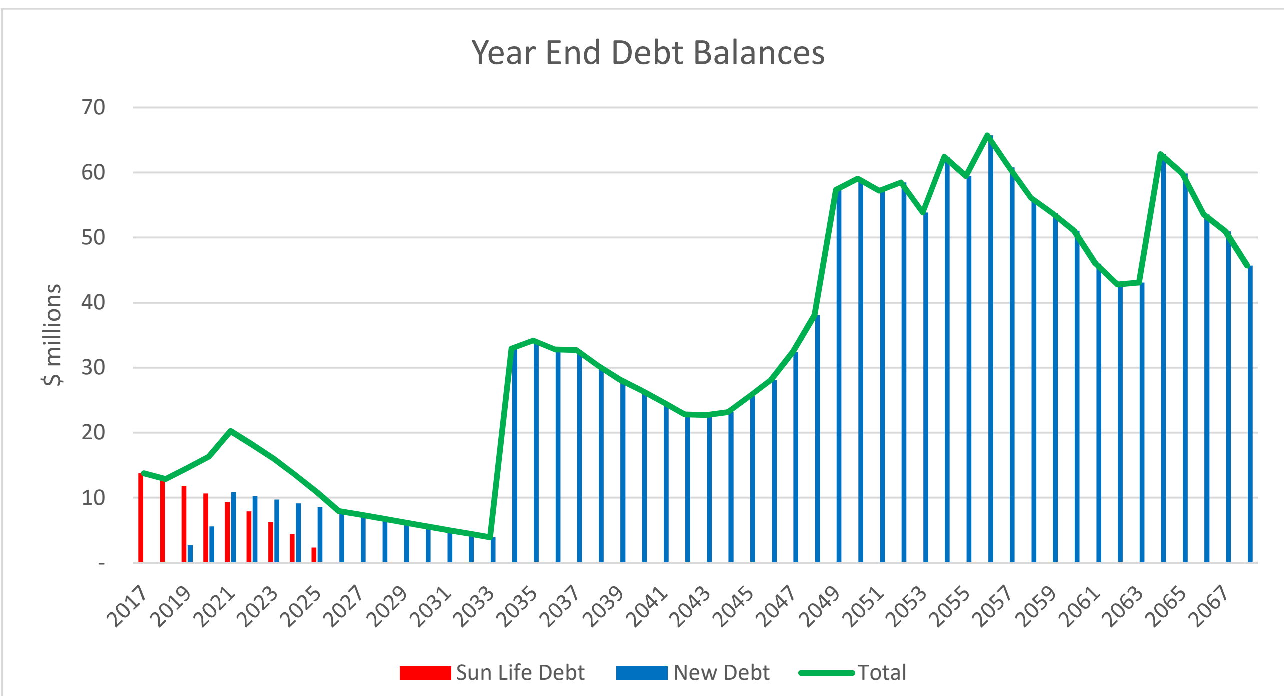
New Debt

New debt (that is, not Sun Life) is drawn as follows:

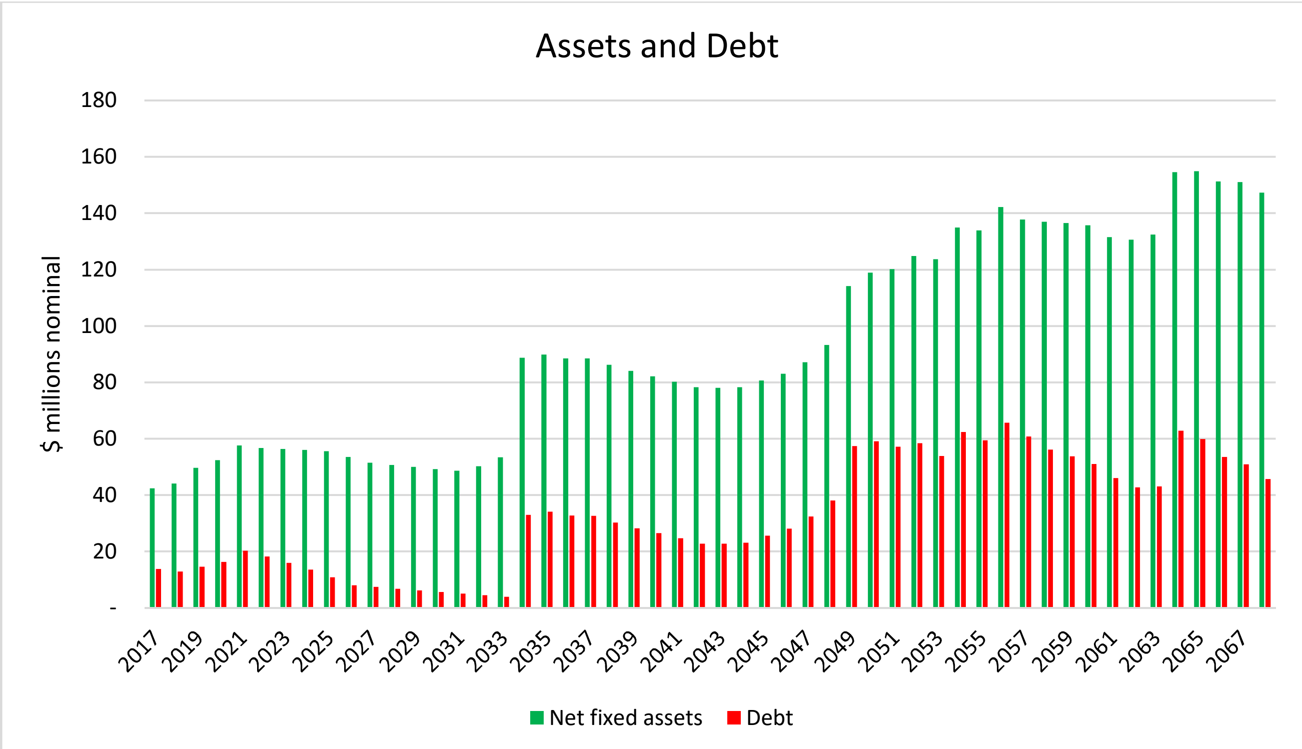


The requirement for new debt, like that of capital expenditures that causes it, is highly uneven. New debt is only drawn if needed. For some expenditures reserves are available to fund capital requirements in part, and in all years cash from operations is available.

The debt balance over time is projected as follows:

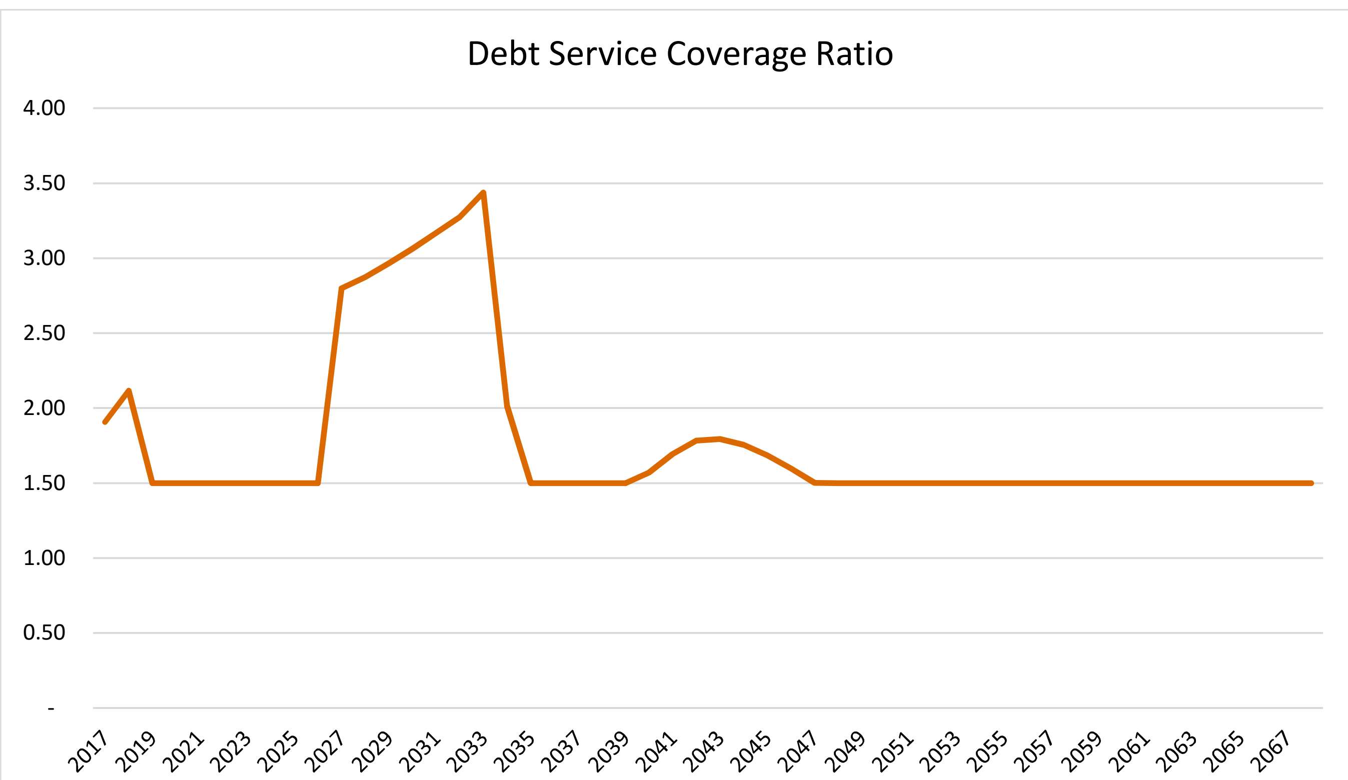


In dollars of the day (including inflation), UWSS debt is projected to exceed $60 million during the projection period. Debt and total assets broadly move together over time:



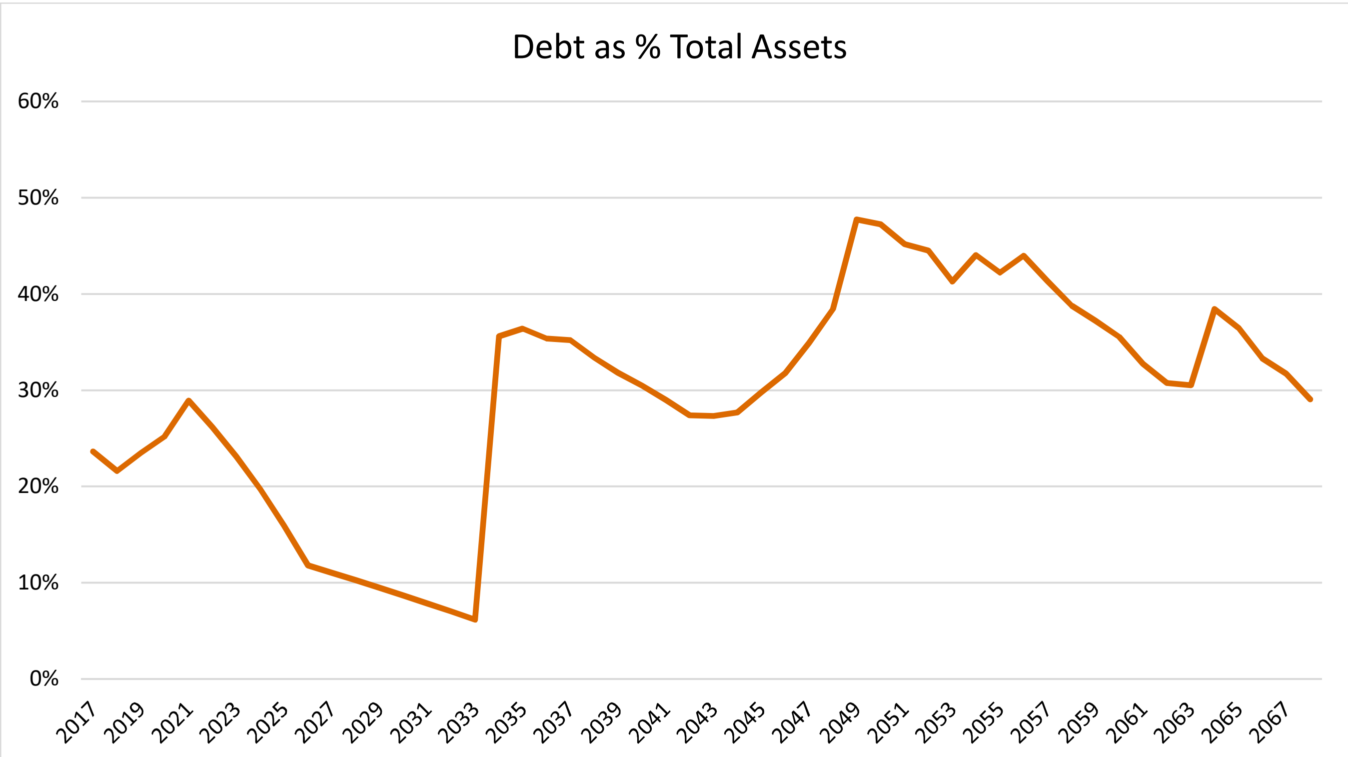
Can UWSS carry this much debt? There are two key measures.

DSCR – a measure of the safety factor enjoyed by lenders – is projected as follows:



In many years, a DSCR of 1.5x is forecast. This is the DSCR built into the revenue model for purposes of this Business Case; UWSS may be able to improve on this through negotiations with lenders. In years for which this DSCR is forecast, revenue is determined according to the “DSCR test”.

Another metric is the debt : equity ratio:



Debt as a percentage of total assets is projected not to exceed 50%. By way of reference, LDCs in Ontario are mandated a 60% debt : 40% equity ratio.

Revenue and Rates

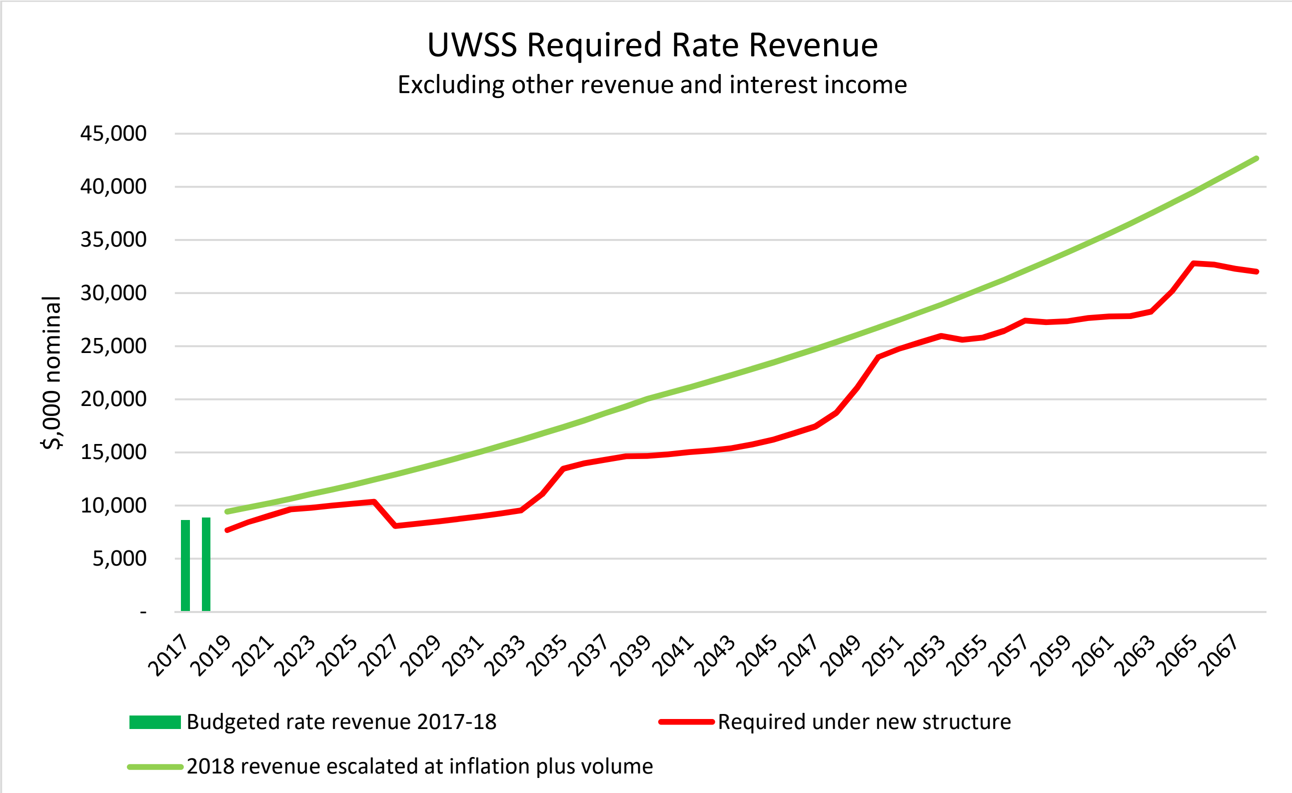
Does the proposed financial structure result in affordable rates, or is there a prospect of “rate shock”?

Comparison to Current Rates

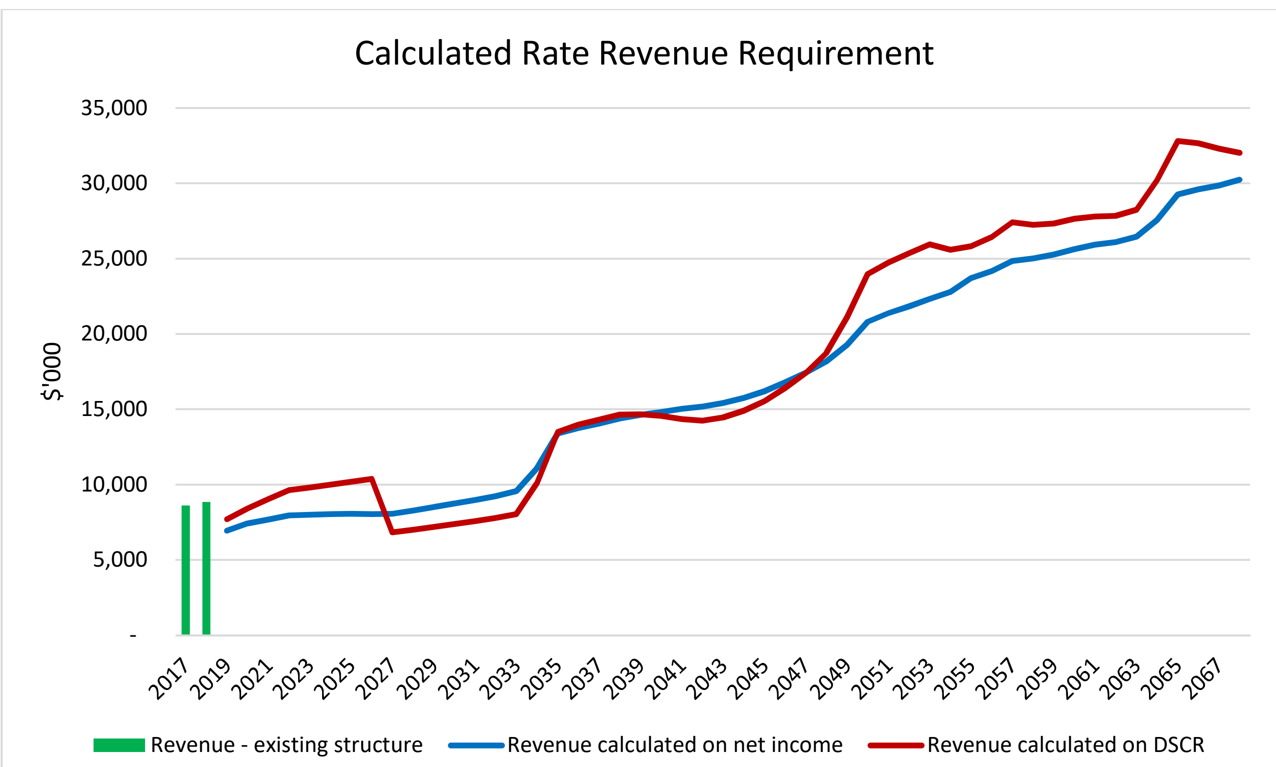
Compared to existing rates (2017 and 2018 approved UWSS plans), the proposed financial structure offers a potential savings:

- The green bars show UWSS rate revenues from the 2017 and 2018 approved plans;
- The green line shows how these rates would translate into rate revenues if rate revenues reflected only:
- General inflation at 2%; and
- Changes in volume over time;
- Resulting in stable real-dollar rates over time;
- The red line shows the projected required rate revenue according to the proposed financial structure.

The proposed financial structure is projected to offer a savings, compared to 2018, in real dollar rates in all years of the projection.



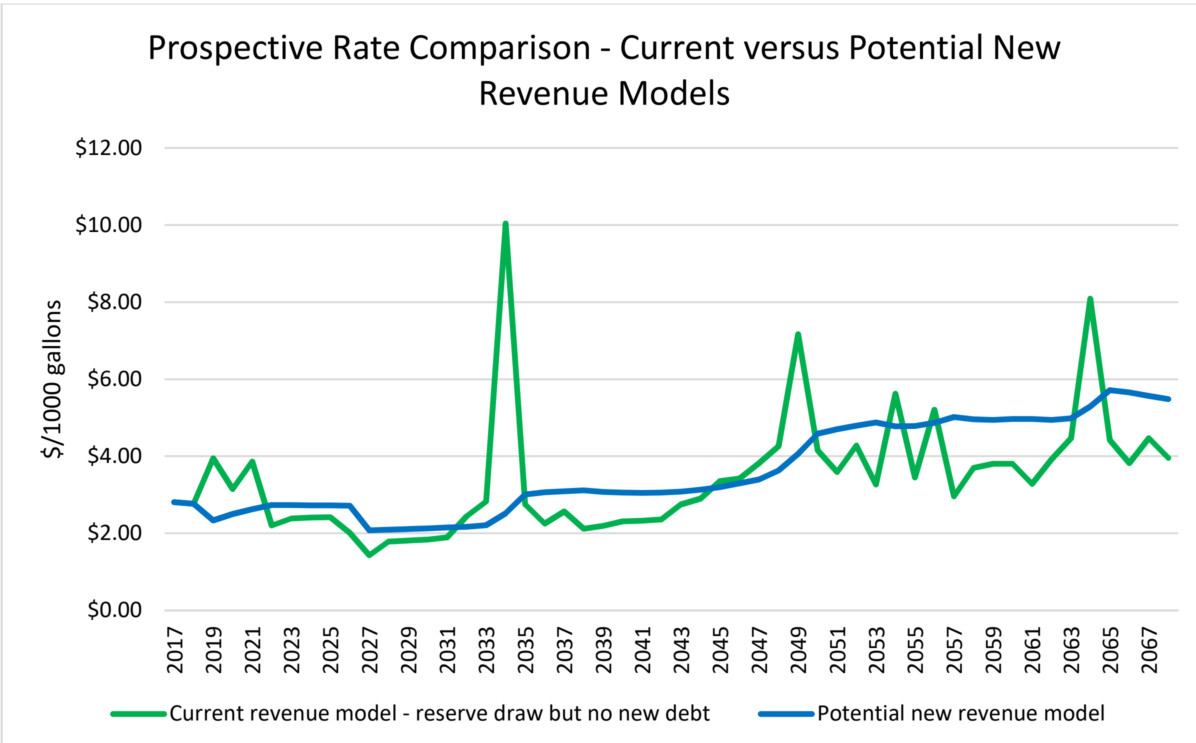
As set out in Section 6, revenue must meet two tests – "break-even test" and the "DSCR test". The graph below shows which test prevails in each year of the projection:



The two "tests" require very similar revenues in all years of the projection; the "DSCR test" prevails in most years. This assumes that the required DSCR is 1.5x; as noted above, UWSS may negotiate a more favourable (less conservative) DSCR in implementation.

Comparison to the Current Model – No New Debt

Leaving aside the existing rates, how would the proposed financial structure compare to the current model if there is no new debt?



The above chart shows this comparison. In most years, the current model and proposed financial structure are close in required rates, with the current model slightly lower (and quite volatile). This makes sense in years with moderate capital expenditure – the current model would need to recover neither depreciation nor debt service.

However, in years of high capital expenditure, the current model calls for rates sharply higher than the proposed financial structure. In practice, UWSS would likely seek some means to provide relief to ratepayers.

Comparison to the Current Model – New Municipal Debt

One means to accomplish this could be to issue new Municipal debt, which is part of the current model.

In this case, as UWSS takes debt service responsibility for Municipal debt issued on its behalf, the projections for required revenue and rates under the current model with Municipal debt would be similar to those for the proposed financial structure as shown above. The difference is that the debt would be consolidated on Municipal accounts.

What About Grant Funding?

Although not reflected in the financial projections, grant funding (as available) may be applied to required capital expenditures, decreasing the need for funding from operations, reserves, or new debt.

Implications

The analysis of the proposed financial structure, and comparing it to the current model with and without new Municipal debt, indicates the following:

- The proposed financial structure offers a potential rate saving (in real dollar terms) compared with prevailing rates in 2017, and those planned for 2018;
- This structure also provides rate stability even in periods of large capital expenditure, as costs are recovered over time in depreciation and debt service rather than giving rise to potential "rate shock"; and
- If grant funding is available, the proposed financial structure will accommodate it and ratepayers will benefit.

8. Assessing the Proposed Financial Structure

This section:

- Assesses the way in which the proposed financial structure achieves the objectives set out in Section 3;
- Describes other options considered and their relative attractiveness;
- Describes the use of the design features of the proposed financial structure by other utilities; and
- Confirms that the proposed financial structure is not a privatization.

How Financial Structure Meets Objectives

This financial structure meets the objectives set out in Section 3 as follows:

Ability to Issue New Debt on a Stand Alone Basis

The proposed financial structure is designed specifically with stand-alone UWSS credit-worthiness in mind. UWSS can realize revenues to at least break even on a GAAP basis, and achieve DSCR as required by lenders.

Debt Attributed to UWSS, not to Municipalities

If the commercial structure is implemented as set out in Section 5, UWSS and the Municipalities can expect to achieve GBE treatment for UWSS. In this case, the debt of UWSS would properly be accounted for on a non-recourse basis, and the Municipal interest in UWSS would properly be accounted for on an equity consolidation basis.

Ability to Accept Grant Funding

The proposed financial structure readily incorporates accessibility to grant funding from senior levels of government. Grant funding, if available, would act as a supplement to cash capital reserves, and would have the effect of avoiding the need for additional debt, and/or augmenting capital reserves.

"Source to Tap"

The proposed financial structure could readily be extended to support the "source to tap" should this be undertaken by one or more Municipalities.

If one Municipality wishes to operate on a "source to tap" basis, this could be accomplished by:

- Keeping separate records for the Municipal water distribution assets and operating costs;
- Determining the required revenue and associated water distribution rates for the Municipality. The Municipality and UWSS would have the option to bill bulk water charges separately from distribution charges (as set out in Section 5), or to combine these two charges; and
- The commercial structure would be as described in Section 5, Option #3.

This structure would have the same financial attributes as described for the UWSS bulk water business, and so should attract the same terms and conditions from lenders. It is likely unnecessary to have separate debt instruments for the bulk water system and a Municipal distribution system (the distribution system would bear its pro rata share of debt-related costs), but this is an option available to UWSS.

Essex and Lakeshore have bulk water supply other than UWSS for the geographic area not served by UWSS; how "source to tap" might be implemented in light of this would require further study.

A rate impact analysis would be undertaken in advance.

There would be other non-financial considerations, including the status and transfer of employees and contracts. These would be the subject of analyses outside the financial structure.

If all Municipalities wish to undertake "source to tap", the Municipalities and UWSS have the option to establish (immediately or over time) a uniform rate structure across all Municipalities.

In sum, the priorities for implementing "source to tap" via UWSS are:

- Maintaining the revenue model such that credit-worthiness is maintained; and
- Maintaining the commercial structure so that GBE treatment is achieved.

No "Rate Shock"

Based on the financial modeling undertaken for this Business Case, the proposed financial structure can accommodate funding for future UWSS capital expenditures – even years with heavy expenditures – without causing "rate shock". Please refer to Section 7.

Non-Uniform Rate Structures

As long as the UWSS required revenue model is maintained, the proposed financial structure can accommodate non-uniform rate structures. The essence of this is that the allocation of the UWSS required revenue may be borne differentially (on a unit of measure basis) by various consumers of UWSS bulk water.

Other Options Considered

Two other financial structures are worth reviewing as alternatives.

The Current Structure

The current financial structure has been in operation since the 2001 Transfer Order (see Section 2), and UWSS has operated to date on this basis.

The current financial structure could be maintained for the short term, if the Municipalities wish to undertake the transition to a corporate legal structure for UWSS before changing UWSS's financial structure.

The current financial structure could be maintained for the long term if:

- The Municipalities (unanimously) are able to implement issuance of new UWSS-related debt as required to undertake the required UWSS capital programs over time;
- Differences (by Municipality) in the usage of capital assets to be funded can be accommodated in the raising of new debt;
- The Municipalities can continue to accommodate the consolidation of UWSS debt on Municipal accounts; and
- The Municipalities can create a streamlined process to enable to UWSS to apply for available grant funding through the Municipalities – including a process to reconcile Municipal and UWSS funding needs if there are limits imposed by granting authorities that call for such a reconciliation.

The LDC Model

The LDC financial structure, as regulated by the Ontario Energy Board ("OEB") has the following characteristics[8]:

- A fixed regulated debt : equity ratio which is 60% debt and 40% equity;
- Cost recovery, subject to regulatory approval:
  - Recovery on a pass-through basis of operations, maintenance, and administrative costs and depreciation expense;
  - Recovery of the actual cost of debt; and
  - An allowance for cash tax expense (not applicable to UWSS); and
- A return to equity based on an OEB-stipulated Return on Equity percentage, which is also recovered from ratepayers.

In the water sector, the LDC model is used by EPCOR[9] in Edmonton and surrounding municipalities; it is also seen in some U. S. water systems (including those owned by EPCOR).

This financial structure could be implemented, but has the following potential drawbacks:

- This is, compared to the proposed financial structure, a high-cost option for ratepayers. The Municipal equity investment under the proposed financial structure earns no systematic return[10]. In the LDC model, it does earn a return, and this return is part of the required revenue to be paid by ratepayers. PwC experience in confidential engagements confirms that inclusion of most or all of existing assets in the base on which a return is earned (debt and equity) results in a sharp increase in rates; and
- With a fixed debt : equity ratio, there may arise circumstances in which a large capital program could result in a call for cash equity investment on the part of the Municipalities. As described in Section 5, this could threaten GBE treatment and result in the requirement for the Municipalities to consolidate all UWSS debt.

How Different is This Structure?

How different is the proposed financial structure from existing precedents in the market? Four examples are worth considering.

The Current UWSS Financial Structure

This structure is described in Section 2 and above in this Section. It is similar to the proposed UWSS financial structure in several important ways:

- UWSS has significant equity under either framework (although it is notional in the current legal structure as UWSS has no corporate existence);
- The revenue model is defined, and recovers all defined costs;

[8] The OEB's Incentive Rate Mechanism sets out rate-setting rules for years between detailed rate filings – this is not described above.
[9] EPCOR is wholly owned by the City of Edmonton
[10] As set out in Section 3, earning a return from UWSS is not a Municipal objective.

- Incremental capital which cannot be funded from available reserves must be debt-funded (no Municipal equity investment is contemplated).

There are differences, which are driven by the objectives set out in Section 3:

- The revenue model is different as described above in order to support stand-alone credit-worthiness;
- Capital costs are ultimately recovered mainly "in arrears" via depreciation and debt service, rather than in-year ratepayer revenue;
- The commercial structure is as set out in Section 5 in order to achieve GBE treatment; and
- Additional debt is provided by the Municipalities rather than being issued by UWSS as a stand-alone entity; this is to be avoided in the proposed financial structure.

Nav Canada

Nav Canada is the entity that controls air space in Canada. It provides air traffic control, flight information, air flight communication services and other services to aviation customers.

Nav Canada is a private non-share capital corporation. It realizes revenues from the aviation industry; it receives no government funding. Its balance sheet shows negligible equity.

Financially, Nav Canada is 100% debt-funded; it has approximately $2 billion in publicly traded bonds outstanding. Revenue is defined according to governing legislation, specifically the Civil Air Navigation Services Commercialization Act, which "prevents [Nav Canada] from setting customer service charges higher than what is needed to meet [Nav Canada's] financial requirements for the provision of air navigation services"[11].

Nav Canada maintains reserves to ensure that it will have the ability to meet its debt-related obligations in the face of fluctuating demand for its services (and therefore its service charge revenue). Nav Canada's debt rating is AA/AA (low)[12].

The Nav Canada model is similar to the proposed UWSS model in that:

- Nav Canada enjoys a monopoly on an essential service;
- Capital costs are recovered "in arrears" via depreciation and debt service;
- It has a defined revenue model (in Nav Canada's case, legislated by Canada);
- Additional capital, as required, is funded entirely by debt; and
- Break-even results are a parameter in determining required revenue.

This model also differs from the proposed UWSS model:

- UWSS has significant equity. The proposed financial structure calls for the Municipalities to convey UWSS-related assets to UWSS in return for shares, while Nav Canada issued debt to purchase its assets from Canada[13];

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[11] Nav Canada Management Discussion and Analysis, December 2016

[12] DBRS, September 2017

[13] The cost of this debt is recovered from its customers

- Nav Canada maintains significant debt-related reserves, which we do not believe will be required in UWSS's situation (given the proposed UWSS revenue model and equity position);

- Nav Canada is an "industry-led entity". Industry stakeholders (of which there are relatively few) provide governance and oversight. The proposed UWSS model, serving a large number of end water customers, relies on the UWSS Board to represent customers. This is analogous to the current situation in most municipalities, where Council represents water customer interests; and

- The proposed legal and financial structure calls for share capital held by the Municipalities, while Nav Canada is a non-share capital entity.

Greater Toronto Airport Authority

The Greater Toronto Airports Authority ("GTAA") is the entity that manages and operates the Toronto Pearson Airport under a ground lease with the Government of Canada; its mandate includes the responsibility to "develop and improve"[14] its facilities. The GTAA is a non-share capital corporation established in 1993.

While the GTAA realizes significant revenue from commercial activities (such as parking and concessions, roughly 30% of total revenues), its principal revenues are aeronautical (landing fees and terminal charges, collected from airlines) and airport improvement fees (collected as surcharges paid by passengers).

A key feature of the GTAA's financial structure is its revenue model, according to which "… the GTAA [must] establish and maintain rates, rentals, charges, fees and services so that, among other things, Net Revenues … in each Fiscal Year will be at least equal to 125 percent of the Annual Debt Service for each Fiscal year…."[15] The GTAA calculates its debt service including a notional 30-year amortization of debt (even if the actual debt instruments do not require such annual amortization).

At the end of 2016, the GTAA recorded over $6.2 billion in debt. Its debt rating is Aa3 (Moody's)[16].

The GTAA's financial structure is similar to that proposed for UWSS as follows:

- The GTAA has a monopoly on its services at Toronto Pearson Airport, an essential service;

- Capital costs are recovered "in arrears" via depreciation and debt service; and

- Its revenue model includes a provision explicitly based on DSCR.

The GTAA's financial structure also differs from that proposed for UWSS:

- The GTAA has a deficit of liabilities over assets of almost $600 million, in contrast to the positive equity position of UWSS;

- The GTAA realizes a significant proportion of its revenues from what, for UWSS, would be non-rate revenue.

Hydro One Remote Communities Inc.

Hydro One Remote Communities Inc. ("HORCI") is wholly owned by Hydro One, Ontario's largest (and until recently 100% publicly owned) electrical transmission and distribution utility. HORCI's business is serving remote

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[14] GTAA Management and Discussion and Analysis and Financial Statements, 2016

[15] Ibid.

[16] Moody's, 2016

northern Ontario communities which are not grid-connected, using diesel generation to energize the local distribution system.

HORCI operates on a break-even basis, in that it is 100% debt-financed (and therefore has no equity). It recovers its costs from a combination of rate revenue and a ratepayer-supported subsidy program (the Rural or Remote Rate Protection program), according to OEB regulation.

HORCI's framework is similar to the proposed UWSS financial structure as follows:

- Incremental capital is 100% debt financed;
- Capital costs are recovered "in arrears" via depreciation and debt service; and
- HORCI operates to a defined revenue model which includes break-even as a parameter.

This framework also differs from the proposed UWSS financial structure:

- HORCI debt is guaranteed by Hydro One, which would be counter to the Municipalities' objectives if applied to UWSS; and
- HORCI, like Nav Canada and the GTAA, has negligible equity.

Summary

To summarize, the proposed UWSS financial structure applies several proven design features – including features of the current UWSS model – and adapts them to achieve the objectives set out in Section 3 given UWSS's specific circumstances.

Proposed Financial Structure – Is It Privatization?

The proposed financial structure is not a privatization option – in fact this structure is incompatible with privatization:

- The initial capitalization – assets and liabilities – calls for the Municipalities to convey UWSS-related assets to a UWSS incorporated entity in return for all the shares of UWSS. Ownership of UWSS would be entirely in the hands of the Municipalities. The Municipalities could at their option, advised by counsel, incorporate rules governing transfer of shares which would explicitly preclude ownership other than by the Municipalities; and
- The revenue model is incompatible with private investment. Under the proposed revenue model, UWSS would not realize a reliable income accruing to equity:
    - The viability of any privatization is based on the earning power accruing to the equity shareholders;
    - In years in which the "break-even test" prevails, net income is zero; and
    - In years in which the "DSCR test" prevails, incidental net income would result; however, the Municipalities could, with counsel's advice, specify that any such net income be contributed to capital reserves to be allocated only to future approved capital projects.

In summary, privatization is not viable under the proposed financial structure.

9. The UWSS-Municipal Agreement

The following table sets out some of the provisions for an agreement between UWSS and the Municipalities, through which the proposed financial structure may be implemented.

Please note that this section deals solely with provisions related to the financial structure; counsel may advise on other matters such as establishment, asset transfer, shareholding, liability, contracting (including the OCWA contract) and governance.

Item	High-Level Provision
Parties	• UWSS • The Municipalities
Effective date	• TBD 2018
Term	• Evergreen, unless terminated as agreed by the Parties
Termination	• As agreed by the parties • A provision would call for the Municipalities to assume UWSS liabilities upon termination, or if the provisions related to credit-worthiness are compromised
Scope	• Provision of bulk water • Quality levels – meet all Provincial requirements • Reliability of supply • Baseline volume year of and prior to Effective Date; UWSS and Municipalities to cooperate on volume projections
Served Area	• Defined for each of the Municipalities
Monopoly provider	• UWSS as exclusive provider of bulk water to the Served Area
Operating and capital budgeting	• Subject to Board approval
Recoverable costs	• Operations, maintenance and administration; including OCWA and other contracts • Depreciation expense • Interest cost • Bad debt expense • All according to approved budget
Revenue model	• Rates set such that UWSS will realize revenue which is at least the greater of: o That which enables UWSS to achieve zero net income; and o That which enables UWSS to achieve a Debt Service Coverage Ratio as agreed with UWSS's lenders under applicable lending agreements [definition of DSCR to be included in the agreement]
Rates	• Required rate revenue divided by aggregate volume at end user meters • Non-uniform rates are acceptable provided that the required rate revenue is achieved
Essential commercial relationship	• UWSS; and • End-use metered water customers

Item	High-Level Provision
Municipalities agents of UWSS	• Municipal undertaking to act as agents of UWSS in billing and normal-course collection of UWSS water charges • UWSS charges to be separately identified in billing • Billing services to be facilitated by Municipalities • UWSS responsible for uncollectible accounts; Municipalities may back-charge • Other provisions as required to achieve appropriate agency treatment

This agreement, once executed, is the principal document on which UWSS will secure financing for new debt (and, potentially, assume responsibility for the Sun Life debt). As such, it will be difficult to change once debt has been raised on its strength.

10. Implementation

This section sets out the prospective implementation tasks and potential timing. The assumed target transition date to the recommended financial structure is January 1, 2019.

This preliminary implementation schedule assumes adoption of a corporate structure for UWSS, and the proposed financial model, circa year-end 2017.

This table addresses only matters related to the proposed financial structure; legal, operational and other matters are not addressed.

Task or Milestone	Preliminary Timing
Financial market sounding – gauging lender interest and most likely lenders; and gaining detailed insight into the required/available provisions of key agreements	• Q1-Q2 2018
Discussion and agreement with Municipal auditors concerning commercial structure and GBE treatment; adjust commercial model if required	• Q1-Q2 2018
Development of the agreement between UWSS and the Municipalities	• Q1-Q2 2018
Development of a Master Trust Indenture, a document which will govern all new debt upon implementation. This will likely involve negotiations with key prospective lenders	• Q2-Q3 2018
Exploration (and potentially negotiation) with Sun Life concerning transfer of obligation to UWSS	• Q2-Q3 2018
Design and organization of new billing and other administrative measures required for new commercial structure	• Q2 – Q4 2018
Decision on management of Windsor Family Credit Union funds – leave invested to maturity or redeem early (possibly with an interest penalty)	• Q3 2018 or after
Updating of UWSS financial projections based on latest information (including volume outlook, investment, and debt requirements)	• Q3 2018
Development and negotiation of lending agreements for initial new debt to be issued	• Q3 2018
Execution of agreements: • UWSS agreement with Municipalities • Supporting service agreements between UWSS and Municipalities (as determined by final commercial structure) • Master Trust Indenture • Initial lending agreements • (Possibly) agreement concerning existing Sun Life debt	• Q4 2018
Funds available – new debt	• January 2019
Go-live for new commercial structure including billing and other administration	• January 2019 or before
New revenue and rate model active	• 2019 fiscal year

11. Summary

Summary of Conclusions

Union Water Supply System ("UWSS") has operated as a bulk water supply utility owned on a "tenants in common" basis by the Towns of Leamington, Kingsville, Essex, and Lakeshore (the "Municipalities") since a 2001 Transfer Order was issued by the Ontario Ministry of the Environment (now the Ministry of Environment and Climate Change). UWSS has no corporate existence; it cannot conduct business independent of the Municipalities. This structure gives rise to several financial challenges including:

- The inability to access grants and other types of funding available for water infrastructure from senior levels of government independent of the Municipalities;
- The inability to raise its own debt independent of the Municipalities;
- A revenue model which, absent additional Municipal debt, does not accommodate large-scale capital programs; and
- Attribution of UWSS debt to the Municipalities.

This Business Case addresses the financial challenges and proposes a new financial structure for UWSS. Legal analysis and other matters not discussed in this report are outside the scope of this Business Case. The Business Case is premised on the Municipalities establishing UWSS as a corporate entity.

In order for a new financial structure to be successful for UWSS and the Municipalities, UWSS must be credit-worthy on a stand-alone basis. Our analysis of potential credit-worthiness indicates that such stand-alone credit-worthiness is achievable for UWSS.

Also, in order for a new financial structure to be successful for UWSS and the Municipalities, UWSS and the Municipalities must achieve a commercial structure under which UWSS debt is properly accounted for as non-recourse to the Municipalities. Our accounting analysis indicates that this too is achievable.

The proposed commercial structure has the following features:

- The essential commercial relationship would be between UWSS and end-use water customers in the Municipalities (who receive UWSS bulk water);
- The Municipalities would act as agents of UWSS in facilitating this relationship;
- The Municipalities would provide billing services as agreed upon with UWSS;
- Volume and credit risk would be to UWSS's account, not that of the Municipalities; and
- UWSS would, with the agreement of Municipal auditors, attract "Government Business Entity" ("GBE") treatment and not be fully consolidated on the Municipal accounts.

The proposed financial structure has the following features:

- Initial capitalization: The Municipalities would convey the UWSS assets to an incorporated UWSS in return for shares in UWSS. UWSS is contemplating a share structure whereby each Municipality's ownership will continue to be based on its consumption through the use of tracking shares. To preserve the existing UWSS ownership model under this structure, tracking shares can be incorporated into the corporate framework, and provide for each Municipality's ownership interest to be equal to its percentage of total water consumption, adjusted every 4 years, much like the current framework;

- Approved capital expenditures would be funded by capital reserves, funds from operations and new (not the existing Sun Life) debt;
- The UWSS revenue model would set rate revenue at the greater of:
    - That which results in zero net income – no loss – for UWSS according to Generally Accepted Accounting Principles; and
    - That which enables UWSS to meet the Debt Service Coverage Ratio (DSCR") as agreed upon with UWSS's lenders;
- UWSS operations would continue as at present, or otherwise as determined by the UWSS Board; and
- Both "source to tap" (integration of UWSS bulk water services with Municipal water distribution) and rate structures other than a uniform rate per unit volume are achievable under the proposed financial structure at the discretion of the Municipalities.

Financial analysis indicates that the proposed financial structure offers potential rate savings to Municipal ratepayers, compared to rates approved for 2017 and 2018 (adjusted for inflation). This financial analysis also indicates that UWSS financial metrics – in particular, those related to new debt – are projected to be robust over a 50-year projection period under the proposed financial structure.

Recommendations

This Business Case recommends that, if the Municipalities establish UWSS as a corporate entity, UWSS and the Municipalities:

- Adopt the proposed financial structure as set out in Sections 6 and 9;
- Adopt the proposed commercial structure as set out in Section 5; and
- Proceed to implementation as set out in Section 10.

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