8.0 What are the LRT costs for the Region of Waterloo and what impact does it have on their property taxes?

Reference: 8.1 www.rideION.ca, Common Questions, ION Costs.

"There are two components to the overall cost of ION: capital costs, and operations and maintenance costs".

There are more than two components to the overall cost of the ION:
1. there are capital costs paid by Metrolinx
2. there are capital costs paid by the city for incremental changes and any work scheduled to be done under a Capital project plan,
3. there are operation and maintenance costs
4. there are insurance costs
5. there are financing costs and lifecycle costs under the P3 partnership arrangement and the AFP delivery model

"Capital costs are $818 million. These costs are funded entirely by three levels of government: the Government of Ontario ($300million), the Government of Canada ($265million) and the Region of Waterloo ($253million)".

"GrandLinq is the consortium responsible for designing, building, **financing**, operating and maintaining ION. GrandLinq's total capital cost is $593 million, including net HST. This includes $532 million funded from the LRT project budget of $818 million and $61 million from intersecting Public Infrastructure Works projects".

Note: The "intersecting Public Infrastructure Works projects" include projects that the Region of Waterloo had listed under future Capital projects and "INCIDENTAL COSTS" for upsizing services. These were paid entirely by the Region of Waterloo.

"The intersecting projects are being completed as part of delivering ION, but are being funded from sources other than ION. These projects were planned and budgeted for and would have been implemented regardless of ION."

Note: Ion is a train and not a source. GandlLinq provided 130.7million worth of partnership funding.

"Some of these projects include:
King Street and Northfield Drive rehabilitation and reconstruction;
Underpass on King Street and the railway crossing near Victoria;
Rehabilitation and reconstruction of King Street (Victoria Street to Union Street)".

"GrandLinq's annual operations and maintenance cost for 30 years includes:

Operations ($4 million, plus HST and inflation);
Maintenance ($4.5 million, plus HST and inflation);
Lifecycle (average $8.7 million, plus HST and inflation);
Financing ($11 million, plus HST);
Insurance ($1.7 million, plus applicable taxes)".

"How are we funding the building and operation of ION?
The capital costs of $818 million – the costs dedicated to building ION – are funded entirely by three levels of government: the Government of Ontario ($300 million), the Government of Canada ($265 million) and the Region of Waterloo ($253 million).
Operations and maintenance, financing, lifecycle and Region costs (electricity, project office, etc.) will be funded by transit fare revenue and the 1.2 per cent **tax increases** (2012-18) approved by Council in 2011.

Note: The 1.2% property tax increases are to occur in each year from 2012 to 2018. Representing an 8.7% property tax increase phased in over 7 years.

Note: the property tax increases were implemented in 2011 in preparation for the LRT which was initially scheduled to be completed by 2014.

Design, Build, Finance, Operate and Maintain

DBFOM preferred because:

♣ **cost: Lower cost over the term of the agreement**.

♣ **experience:** The private sector has more experience than the Region in designing, constructing, operating and maintaining an LRT system.

♣ **incentives:** Payments and penalties based on performance during construction and operations and maintenance. If the private company does not perform to the standards set in the contract, it would not get paid;

♣ **risks:** Risk allocated to party best able to manage it.

♣ **co-ordination risk:** Having the same company responsible for operations and maintenance of the system avoids finger pointing. The Region only needs to ensure problems are addressed and is not concerned whether it is caused by operations or maintenance. This also applies during the commissioning phase where there is significant coordination between the builder and the operator

♣ **flexibility:** Allows for early termination of the agreement to facilitate seamless transition to operation and maintenance of Stage 2, and;

♣ **funding contributions:** Use of the DBFOM option **supported by provincial and federal staff.**

♣ Council approved **DBFOM** approach February 2012.

No four leaf clovers

Costs: not sure how you would attain lower costs over the term of the agreement. I have yet to see a private company willing to work for a loss.

Experience: Agreed the private sector would have more experience. Interesting fact – an expert working on the ION project indicated that they had worked on 12 LRT projects in the USA, however, none for a city as small as Kitchener".

Incentives: not sure how you could base payments and penalties based on performance. The project is three years behind schedule.

Co-ordination risk: this is a benefit

Flexibility: this is only to allow you to increase your obligations by adding a second stage to the agreement. The flexibility is not meant to allow you to cancel the arrangement.

Funding Contribution: Is there is a perception of trust and accountability if both the provincial and federal governments support the DBFOM model? Not.

DBFOM: approved by council. All levels of governments approve of this model. Is there a component of accountability and affordability?

The 2018 OPERATING BUDGET ESTIMATE for the Region of Waterloo

Reference: 9.2 “The ION Story” January 2015 Planning for the Future.

Project Component	Operating Budget	Notes
Annual Expenditures		
Allocation to Cambridge transit supportive strategy	$1.00	Funding for 10 years to 2022
GrandLinq Debt and general Operating Maintenance Lifecycle Insurance **Sub-total**	 $10.63 $4.43 $4.97 $7.28 $1.87 **$29.18**	 Contract Costs as described in previous slide are subject to inflation (operating, maintenance, lifecycle and insurance) and experience rating (insurance)
Region (debt servicing) aBRT ($4.5million) RT ($100million) Sub-total	 $0.55 $5.97 **$6.52**	Principal and Interest Costs; $50.0m debenture issued May 2013 $50.0m debenture issued March 2014 $4.5m debenture issued 2015
Region (operating) aBRT RT Division Traction power & utilities Sub-total	 $3.70 $1.64 $2.29 **$7.63**	 Cost estimate based on GRT operating costs for aBRT, and estimated costs for traction power and utilities and staffing required in 2018.
Total Annual Expenditures	**$44.33**	

Project Component	Operating Budget	Notes
Annual Revenues		
Property Tax	**$35.03**	Property tax is calculated based on a tax rate increase
Ridership Revenues Advertising revenues	$9.05 $0.25	Ridership revenue based on ridership estimate from the “Environmental Project Report”. Advertising estimates based on experience with Grand River Transit
Total Annual Revenues	**$44.33**	

Project Component	2014 Financial Close	Notes
Capital Costs of Project ($ in millions) LRT Project		
DBFOM LRT Intersecting projects, utilities, and betterments	 $529.7 $61.0	
Total DBFOM construction (incl. net HST) Recoveries (area municipalities and Roads and Water capital budgets)	$590.7 ($61.0)	
NET DBFOM Total	**$529.7**	
Non-DBFOM **Vehicles** Land Project Office & Consulting MTO Underpass construction Hydro One – Transmission line relocation Early Works and Other Infrastructure Non-DBFOM Total	 **$95.5** $42.3 $51.8 $11.2 $26.3 **$29.3** $256.4	
LRT Total	**$786.1**	
aBRT Vehicles and Construction	$19.5	
Contingency allowance	$12.4	
TOTAL	**$818.0**	

Source of Funding	Amount ($ in millions)
Regional Debentures	$104.5
RTMP Reserve	$17.8
GrandLinq	$130.7
Total Region Funding	**$253.0**
Government of Canada	$265.0
Government of Ontario	$300.0
TOTAL	**$818.0**

There is an agreement between the Region, Metrolinx and Bombardier.
To purchase up to 28 Bombardier light rail vehicles (LRVS).
This includes 14 LRV's, spare parts inventory and special tools.
The capacity is 200 passengers per vehicle with 57 seats and plenty of standing room.

The initial contract price for the vehicles is $90.8M plus $4.7M contingency for **a total of $95.5M.**

Delivery of these vehicles will start in 2016.

The agreement was noted as a "Complicated Tri-Party Agreement" signed on **July 10, 2013**.

Evaluating Costs (Operating, Maintenance, Lifecycle, Finance, Insurance) OMLFI

Long term financing through Regional debentures is $104.5M.

$50M issued in May 2013 for 30 years at 3.88%.
$50M issued in March of 2014 for 30 years at 4.25%
$4.5M to be issued for aBRT vehicles in 2015 for 10 years (3.88%)*
*Note: calculated based loan amount, payments and term

Regional Transportation Master Plan (RTMP) Reserve

Construction costs of $17.8M funded over the construction period

Debt repayment and debt to GrandLinq require payments over 30 years

The RTMP Reserve is funded by INCREMENTAL TAX LEVY INCREASES between 2012 an 2019.

YEAR	Financing	Operations	Lifecycle	Maintenance	Insurance +8% RST	all figures
	+HST 13%	+HST 13% +Inf 1.5%	+HST 13% +Inf 1.5%	+HST 13% +Inf 1.5%	+3.5% PREM +Inf 1.5%	in millions of dollars
NET Cost	$11.000	$4.000	$8.700	$4.500	$1.700	**$29.9**
1	$12.430	$4.520	$9.831	$5.085	$2.142	$34.0
10	$12.430	$5.168	$11.241	$5.814	$2.449	$37.1
20	$12.430	$5.998	$13.045	$6.748	$2.842	$41.1
30	$12.430	$6.961	$15.140	$7.831	$3.299	$45.7
TOTAL	**$372.900**	**$169.675**	**$369.043**	**$190.884**	**$80.405**	**$1,182.9**

Operations		**$169.7**	**million**
Maintenance		**$190.9**	**million**
Lifecycle		**$369.0**	**million**
Financing		**$372.9**	**million**
Insurance		**$80.4**	**million**
30 year cost		**$1,182.9**	**million**

The total of the annual payments for the DBFOM agreement is $1.2billion over 30 years.

COST ANALYSIS: The Region of WATERLOO IS REQUIRED TO PAY:

Intersecting Projects, Utilities and Betterments	$ 61.0 M
$ 4.5M debenture $0.55M for 10 years:	$ 5.5 M
$100M debenture $5.97M for 30 years:	$ 179.1 M
RTMP Reserve:	$ 17.8 M
	$ 263.4 M
DBFOM Costs: over 30 years	$1,182.9 M
TOTAL COST OVER 30 YEARS	**$1,446.3 M**

THAT is almost $1.5 BIllion

The Provincial Government has provided $300M in funds.

1. Metrolinx will receive $369M for lifecycle costs the vehicles were purchased for **$95.5M** and with inflation (at 1.5%/yr) will cost **$147.1M to replace in 30 years**. However, there is no guarantee that they will be replaced only that they will be operational.

2. GrandLinq will receive $372.9M for financing **$130.7M** of the project. There is no information about the interest rate as there is for all other loans. I have calculated the rate to be **8.74% compounded annually** (for annual payments of 12.43M paid at the end of each year). The Region of Waterloo will pay back the $130.7M loan and **interest charges of $242.2M.** Remember, both the Provincial and Federal governments support the DBFOM option as it will lower costs over the term of the agreement.

3. The interest rate charged on the Region of Waterloo's $104.5 M debenture is on average 4.0%. If the Region of Waterloo **obtained their own financing** for the **$130.7M loan at a rate of 4.0%** and made payments of $12.43M annually they would pay back the loan in less than 14 years. The interest charged on the loan at 4% (and not 8.74%) would be **$42.7M** resulting in a savings of **$200 Million**.

4. If the Waterloo region could **cancel the lifecycle agreement** and invest the payments at 2.5% annually for 30 years, they would accumulate **$525.5 M.** They could then pay **$160.5M** for replacement vehicles and other expenses which would leave them with **$365 Million**.

5. **$200 M** in interest saved on the loan + **$365 M** saved on lifecycle payments + **$253 M** contributed by the Waterloo region = **$818 Million** the total cost of the LRT.

($565 M saved could pay for Hamilton City Council lunches for 18,800 years)