Combating Ontario's Underground Economy in the Residential Renovation Sector and Reducing GHG Emissions Through Innovative Policies

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Prepared for:

Ontario Home Builders' Association

Prepared by:

Altus Group Economic Consulting

33 Yonge Street Toronto Ontario M5E 1G4

Phone: (416) 641-9500 Fax: (416) 641-9501

economics@altusgroup.com

altusgroup.com

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EXECUTIVE SUMMARY

In July 2010, the provincial government introduced the Harmonized Sales Tax (HST), combining the provincial PST and the federal GST into a single tax. There were concerns at the time that, because the implementation of the HST would triple the sales tax rate on contractors' renovations in Ontario, it would lead to increased underground economy activity;

Subsequent to the implementation of the HST, the share of residential renovation spending through contractors that leaked underground has remained elevated, fluctuating between 38% - 40% from 2010 – 2016;

The underground economy in the construction industry presents a myriad of problems, including:

- Introducing risks to consumers;
- Introducing health and safety risks to construction workers;
- Undermining the integrity of the tax system; and
- Creating barriers for the industry's future development.

A major problem with the underground economy is that it causes serious revenue losses to governments at all levels from:

- Loss of HST revenue;
- Loss of corporate and personal income tax revenues;
- Loss of other government revenues including Canadian Pension Plan (CPP) contributions, Employment Insurance premiums, Workplace Safety & Insurance Board (WSIB) premiums and Employer Health Tax (EHT) remittances; and
- Loss of revenue for municipalities for items such as building permits, municipal licensing revenues, etc.

It is estimated that provincial and federal governments lost a substantial $16 billion in potential tax revenues from 2010-2016 through residential renovations undertaken by contractors in Ontario, owing to the underground economy.

If the provincial government had introduced a tax rebate directly to consumers targeting the contractor renovation sector, the negative impacts of the underground economy would have been mitigated. The introduction of a

rebate would have created an extra incentive for homeowners to document properly and report their contractor renovation projects, thereby lessening the amount of contractor renovation spending lost to the underground economy. Had a rebate been introduced, a substantial portion of tax revenues lost to the underground economy could have been recouped, at a relatively minimal direct financial cost to the provincial government and no cost to the federal government.

A significant portion of residential renovations done by contractors are estimated to be related to energy efficient upgrades. The introduction of a Home Renovation Tax Credit for these upgrades would have beneficial impacts:

- It would reduce the amount of tax leakage due to the underground economy by incentivizing homeowners to properly document and report their contractor renovation projects; and
- It would help the provincial government meet public policy objectives pertaining to climate change mitigation through the reduction in GHG emissions for residential properties.

Had the provincial government introduced a tax credit for energy efficient home renovations, it would have recovered a significant portion of tax revenues lost to the underground economy while helping combat pollution by stimulating energy efficient renovations and lowering carbon emissions from existing homes. It therefore makes good sense for the provincial government to implement such a policy in the future.

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1 INTRODUCTION

In 2009, Altus Group Economic Consulting produced a report for the Ontario Home Builders' Association[1] (OHBA) analyzing the potential consequences of the implementation of the Harmonized Sales Tax (HST) on Ontario's residential renovation sector, especially with respect to the risk of exacerbating the already problematic underground economy.

The HST was implemented in Ontario on July 1st, 2010, replacing the separate GST and PST. The HST is composed of the federal Goods and Services Tax (GST) and the Provincial Sales Tax (PST), and applies generally to the same base of goods and services that are taxable under GST. The provincial portion of the tax is 8% while the federal portion is currently 5%.

In the 2009 report, the value of government tax leakages due to residential renovations by contractors performed "underground" was estimated and ways to mitigate the potential negative impacts of the implementation of the HST were assessed, including providing an across-the-board rebate on contractor renovations.

This report updates this analysis, estimating the tax revenues lost to the underground economy since the implementation of the HST. It also assesses the potential tax revenues which could have been recouped, had the recommendations in the original report been implemented by the provincial government.

This report also assesses the costs and benefits of a potential Home Renovation Tax Credit (HRTC) provided for certain qualifying energy efficient home renovations. This tax credit would be beneficial for two main reasons:

- It would reduce the amount of tax leakage related to the underground economy by incentivizing homeowners to document properly and report their contractor renovation projects; and
- It would help the provincial government meet policy objectives pertaining to climate change mitigation through a reduction in greenhouse gas (GHG) emissions.

[1] Altus Group, *Sales Tax Harmonization and the Residential Renovation Sector in Ontario*, November 2009

The residential renovation sector accounts for some $28.3 billion in investment activity in Ontario, equivalent to about 4% of the provincial economy and supporting some 240,000 direct jobs in the province.

The underground economy is already a major problem in Ontario's renovation sector. The underground economy represents a sizable share of the overall GDP. In a 2016 study, Statistics Canada concluded that underground production accounts for some 2.4% of total GDP. This share varies widely among different sectors of the economy, and is estimated to be highest for the residential renovation sector.

Detailed estimates by the Ontario Construction Secretariat (OCS) provide an even more comprehensive picture of the impact of the underground economy in Ontario's construction sector. In 2008, the OCS concluded that underground economy accounts for some 37% of the total output of residential renovation contractors in the province.[2]

2 TRENDS IN RENOVATION SPENDING IN ONTARIO

Figure 1 shows the estimated value of renovation spending from 2009 onwards.

Figure 1

Residential Renovation Spending, Ontario

Year	Total Residential Renovation Spending *Millions ($)*	Year-over-year % Growth
2009	21,290	
2010	22,050	3.6%
2011	22,625	2.6%
2012	23,570	4.2%
2013	24,275	3.0%
2014	25,785	6.2%
2015	26,940	4.5%
2016*	28,310	5.1%
Avg. An. Growth		**4.2%**

*Estimated
Source: Altus Group Economic Consulting estimates, based on data from Statistics Canada

[2] Prism Economics & Analysis, *Underground Economy in Construction – It Costs us All*, prepared for Ontario Construction Secretariat, April 2008.

- Renovation spending advanced at a 4.2% annualized pace from 2009-2016; and
- Renovation spending increased by 3.0% during the recession in 2009, even while new construction and overall economic activity was dropping. This was due in part to the Home Renovation Tax Credit, a federal measure introduced in 2009 on a temporary basis as a means to help stimulate the economy, which credited 15% on eligible renovation expenditures.

2.1 Estimating Renovation Spending Done by Contractors

Renovations can either be done through contractors or through the "do-it-yourself" (DIY) sector (i.e. repairs and renovations done by homeowners themselves with materials purchased, generally, from retail stores). Prior Altus Group research[3] indicates that the share of renovation spending done through contractors amounts to about 69% while the remaining 31% is completed through the DIY sector.

Figure 2 shows the estimated spending on contractor residential renovations, using the above analysis. As can be seen, amount spent on renovations done by contractors increased from some $14.7 billion in 2009 to $19.6 billion in 2016 – average annual growth of 4.2%.

[3] Altus Group, *Sales Tax Harmonization and the Residential Renovation Sector in Ontario*, November 2009

Figure 2

Estimated Spending on Residential Renovations Done by Contractors, Ontario

Year	Total Residential Renovation Spending *Millions ($)*	Year-over-year % Growth
2009	14,748	
2010	15,275	3.6%
2011	15,673	2.6%
2012	16,328	4.2%
2013	16,816	3.0%
2014	17,862	6.2%
2015	18,662	4.5%
2016*	19,611	5.1%
Avg. An. Growth		**4.2%**

* Estimated

Source: Altus Group Economic Consulting estimates, based on data from Statistics Canada

Investment in residential renovation through contractors can be further divided into the labour/overhead component and the materials component. On average, the labour/overhead component accounts for about two-thirds of total repair and renovation through renovation contractors, according to Statistics Canada. The cost of materials accounts for the rest. Figure 3 shows renovation spending from 2009 – 2016 done through contractors and through the do-it-yourself sector.

Figure 3

Estimated Spending on Residential Renovations Done by Contractors, Ontario

Year	Total Renovation Spending	Contractors		Do-It-Yourself
		Labour	Materials	
	Millions ($)			
2009	21,290	9,907	4,842	6,542
2010	22,050	10,260	5,014	6,775
2011	22,625	10,528	5,145	6,952
2012	23,570	10,968	5,360	7,242
2013	24,275	11,296	5,520	7,459
2014	25,785	11,998	5,864	7,923
2015	26,940	12,536	6,126	8,278
2016*	28,310	13,173	6,438	8,699

* Estimated

Source: Altus Group Economic Consulting estimates, based on data from Statistics Canada

3 IMPACT OF HST ON THE RENOVATION SECTOR IN ONTARIO

3.1 Tax Harmonization Significantly Increased the Tax Burden on Homeowners and Rental Housing Investors

Prior to implementation of the HST, only the federal GST was charged to purchases of new homes and renovations (with partial rebates in certain circumstances). There was a provincial retail sales tax (PST) component for both. The PST was charged on the building materials used in new home construction and renovation, and thus a certain amount of PST was embedded into the final price of a new home, or contract value for a renovation project. However, the labour cost and overhead components of the home renovation were not taxed prior to the implementation of the HST in Ontario. With its implementation, the 8.0% Ontario provincial sales tax was newly applied to the contractor's labour and overhead costs thereby increasing the effective tax rate on contractor renovations in the province conducted legally outside of the underground economy.

The implementation of the HST had the following rate implications for renovations:

- For homeowners doing their own work, an 8% tax rate – no change from the prior tax regime; and
- For contractor renovations – a rise from the existing effective PST tax rate of about 2.6% (embedded costs) to 8% on the total value of contractor renovations. This represents a tripling of the sales tax rate on contractors' renovations in the province.

As a result, the HST was decidedly not "revenue neutral" (i.e., raising generally the same amount of provincial tax as the prior regime) for this important area of housing investment and placed an unfair burden on contractor renovations and additional taxation on consumers of legitimate business.

3.2 The Share of Underground Renovation Activity Remained Elevated after the Implementation of the HST

In 2008, The Ontario Construction Secretariat[1] (OCS) estimated that underground activity accounted for some 37% of the total output of the residential contractor renovation sector in Ontario, a substantial share of the overall economic activity.

In their analysis of the underground economy in 2010[4], the OCS highlighted three indirect indicators to monitor for changes in underground economy activity:

- The share of independent operators in the construction labour force (independent operators are the basis of much underground economy activity);
- The ratio of cash to household expenditures (a measure of cash transactions in the economy); and
- Homeowners' spending on repairs and renovations;

Based on an analysis of these factors and studies of the underground economy undertaken by Statistics Canada[5],[6], Altus Group estimates that the share of activity leaking to the underground economy ranged from 38% to

[4] Ontario Construction Secretariat, *The Underground Economy in Construction – It Costs Us All*, July 2010

[5] Morissette, C., *The underground economy in Canada, 1992 to 2011, Statistics Canada, 2014*

[6] Terefe et. al. , *Estimating the Underground Economy in Canada, 1992 to 2008, Statistics Canada, June 2011*

40% from 2010 – 2016 with 2016 being estimated at 38%. These shares are elevated and slightly higher than the original OCS estimate.

4 IMPLICATIONS OF THE UNDERGROUND ECONOMY ARE DIRE

The underground economy in the construction sector presents myriad problems, not only from losses in tax revenues and increased risks to consumers, but it also distorts normal market functionality. The underground economy causes an unlevel playing field.

Some of the problems associated with underground economy include:

- Introducing legal and liability risks to consumers, as well as the potential for losing recourse in the event of a dispute;
- Introducing health and safety risks to construction workers;
- Undermining the integrity of the tax system; and
- Creating barriers for the industry's future development.

4.1 The Underground Economy Introduces Risks To Consumers

A "cash deal" between a renovator and a homeowner is generally not governed by a written contract. This type of business arrangement involves significant risks for consumers, including:

- There may end up being disputes between the renovator and the homeowner with respect to the agreed upon work and the amount to be paid. The homeowner will have considerable difficulty protecting his/her interests in these circumstances;
- If there is damage to the house during the renovation, it may not be adequately covered by an insurance policy. Contractors who operate properly are likely to have business insurance that covers their liability in the case of property damage or personal injury. Contractors who conduct underground activities generally would not have such insurance and the homeowner might face higher uninsured liabilities in the event of property damage (to his or a neighbour's property) related to the renovation activity;
- There is a risk that the finished renovation work might not comply with the Ontario Building Code. Most major residential renovations require municipal and/or utility building permits and must pass required inspections. Professional contractors ensure that all required

permits are in place. In most cases, underground contractors will skip this paperwork and the finished renovation work might be in violation to the Ontario Building Code. In extreme cases, the municipality could force the work to be torn down at the homeowner's cost;[7] and

- In the event of a workplace injury, the homeowner could be held responsible for medical and rehabilitation costs. In addition, the homeowners might have to pay extra fines:

> In Ontario, homeowners who function as their own general contractors and hire workers can be classified as "constructors" under provincial labour law. In these circumstances, unsafe workplace conditions can leave them open to fines under Ontario's Occupational Health and Safety Act. For example, in 2003 a homeowner in North York was fined $20,000 after a worker died while working on his home.[8]

4.2 The Underground Economy Introduces Health And Safety Risks To Construction Workers

Not only can the underground economy introduce risks to homeowners, but it can also introduce health and safety risks to construction workers. Some of those risks include:

- Workers employed in "underground" renovation projects may not be properly equipped to complete their tasks. This will add to the safety risks to those workers; and
- Contractors, who operate in the underground economy, in general, have no official health and safety standard. They might ask their workers to handle toxic materials without the proper protection and procedure, causing health risks to construction workers. Their workers may not have the provincially required Working at Heights Training[9] and may put themselves (and the homeowner for liability reasons) at risk.

[7] The website of the Get It in Writing campaign.

[8] Ibid

[9] The Ontario Ministry of Labour requires mandatory Working at Heights Training for all construction workers who work at heights.

4.3 The Underground Economy Potentially Could Undermine The Integrity Of The Tax System

When underground practices are widespread in the economy, market participants could perceive the tax system as unfair, attitudes toward the system would deteriorate and support for the public sector erodes.[10]

The problem could also be contagious – as the underground economy grows, the practice could be seen as more acceptable and as a result, more market participants (both contractors and homeowners) would likely conduct "cash deals" because "everyone else" is doing it.

4.4 The Underground Economy Creates Barriers For Future Development

Underground activities provide unfair advantages to a few illegal market participants and discourage normal business activities that are vital for the future development of the industry:

- This "unlevel playing field" depresses legitimate construction companies' business margins and reduces profitability of those companies. As a result, legitimate construction companies have less capacity and willingness to invest in employee training and new technologies, which are essential for future productivity growth in the sector. Underground operators are simply not playing fair;
- It is generally accepted that due to demographic conditions in Ontario, the construction sector will face emerging labour shortages in the coming decades. One of the main solutions to combat this problem is to promote productivity growth. Underground activities can hurt the industry's future development by jeopardizing apprenticeship and training programs and ultimately dampening productivity growth;
- Underground activities increase tax and contribution burdens on legitimate contractors and workers. For example, in the case of the Workplace Safety Insurance Board in Ontario, contributions from the

[10] Smith, Roger S. and Mirus, Rolf, *Canada's Underground Economy: Measurement and Implications*, The Fraser Institute, 1997.

construction industry to the system have increased significantly in recent years;[11]

- Underground practices also potentially weaken health and safety standards and programs, undermine labour standards and erode construction standards;[12] and
- Underground activities reduce the contribution base for worker benefit plans and weaken apprenticeship training.[13]

5 UNDERGROUND ECONOMY CAUSES SERIOUS REVENUE LEAKAGES FOR THE GOVERNMENT

Another major problem with the underground economy in construction is that it causes substantial revenue loses for governments. The underground economy operates without the government's monitoring - business transactions and workers' incomes are generally unreported to the government. As a result, the underground economy causes serious revenue leakages of sales and income taxes and of other potential government revenues. Examples of tax and revenue leakage include:

- Loss of GST / HST revenue;
- Loss of corporate and personal income tax revenues;
- Loss of other government revenues: The government also loses revenues from other sources to the underground economy, including Canadian Pension Plan (CPP) contributions, Employment Insurance (EI) premiums, Workplace Safety & Insurance Board (WSIB) premiums and Employer Health Tax (EHT) remittances; and
- Loss of revenue for municipalities: The underground economy in construction also causes revenue losses to municipalities for items such as building permits, municipal licensing revenues, etc.

[11] John O'Grady Consulting, Greg Lampert Economic Consultant, and The ARA Consulting Group Inc., *The Underground Economy in Ontario's Construction Industry*, prepared for Ontario Construction Secretariat, Final Report, November 1998.

[12] Ibid

[13] Ibid

5.1 A Substantial $47 billion Worth of Contractor Residential Renovations Were Done Through the Underground Economy from 2010-2016

Figure 4 shows the estimated size of the underground economy in residential renovation work done by contractors.

Figure 4

Estimated Size of the Underground Economy in the Contractor Residential Renovation Sector, Ontario

Year	Total Contractor Renovation Activity	Estimated Share of Underground Economy	Estimated Size of Underground Economy
	Millions ($)	*%*	*Millions ($)*
2010	15,275	40	6,104
2011	15,673	39	6,157
2012	16,328	39	6,346
2013	16,816	38	6,360
2014	17,862	39	6,936
2015	18,662	39	7,196
2016	19,611	38	7,498
2010-2016 Cumulative Total	**120,226**		**46,596**

Source: Altus Group Economic Consulting estimates, based on data from Statistics Canada, The Ontario Construction Secretariat and WSIB

- The value of residential renovation work undertaken by contractors totalled an estimated $120.2 billion from 2010-2016;
- The share of this work flowing to the underground economy is estimated to have ranged between 38% and 40% over this time period;
- As a result, the amount of residential renovation work undertaken by contractors and flowing to the underground economy is estimated to have totalled a substantial $46.6 billion from 2010-2016 (about 1% of overall economic activity);

5.2 A Considerable $16 billion In Government Revenues Leaked to the Underground Economy from 2010-2016

Figure 5 shows the estimated annual government revenue leakage from the underground economy stemming from residential renovations undertaken by contractors from 2010-2016.

Figure 5

Estimated Tax Leakages for Federal and Provincial Governments Owing to the Underground Economy, Ontario

Year	Total Contractor Renovation Activity	Tax Leakages From Underground Economy Activity	year-over-year % Growth in Tax Leakages
		Millions ($)	
2010	15,275	2,114	n/a
2011	15,673	2,152	1.8%
2012	16,328	2,214	2.9%
2013	16,816	2,231	0.7%
2014	17,862	2,439	9.3%
2015	18,662	2,532	3.8%
2016	19,611	2,615	3.3%
2010-2016 Cumulative Total	**120,226**	**16,297**	

Source: Altus Group Economic Consulting estimates, based on data from Statistics Canada, WSIB, Ontario Ministry of Finance

The tax leakages were obtained by estimating the amount of tax revenue governments would have received (i.e. from personal and business income taxes, CPP, EI, EHT, WSIB contributions and HST) had there been no underground economy and applying the estimated share of underground economy leakages (which ranged from 38% to 40% from 2010-2016).

- The presence of the underground economy resulted in a substantial $16 billion in revenue being lost to the federal and provincial governments from 2010-2016; and
- The amount of revenue leakage increased by an average annual rate of nearly 4% from 2010-2016. This indicates that leakages are growing, pushed higher by greater residential renovation spending and resulting in increased annual revenue losses for governments.

6 MITIGATING REVENUE LOSES

6.1 The Revenues lost to Government Would Have Been Lessened had A Renovation Rebate Been Offered

In the 2009 Altus Report, *Sales Tax Harmonization and the Residential Renovation Sector in Ontario*, a full rebate for contractor renovations provided

by the provincial government, which would rebate 5.4% of the contract value on all qualifying contractor renovations directly to the consumer, was proposed as a way to:

- Mitigate the negative impacts on homeowners and rental housing investors from a higher tax burden due to the implementation of the HST; and
- Combat the growing problem of the underground economy in the construction sector, if the rebate were to be offered as a refundable tax credit.

The 5.4% rebate is derived as the difference between the 8% provincial portion of the HST and the 2.6% estimated (in the 2009 report) to have at the time been embedded in contractor renovations (based on the proportions of materials in contracts) and would be deemed to be "revenue neutral" with the pre-HST provincial tax regime.

This rebate, had it been implemented, would have provided an extra incentive for homeowners to properly document and report their contractor renovation projects. This would have created a paper trail that would allow the government to audit business and cross reference with other agencies such as the Canada Revenue Agency (CRA) for income taxes, WSIB, Ministry of Labour, CPP, etc.

Figure 6 shows what the potential cost of such a rebate would have been had it been implemented in 2010.

Figure 6

Cost of Rebate Offered (a 5.4% Across-the-board Rebate on Contractor Renovations in the Residential Sector), Ontario

Year	Total Contractor Renovation Activity	Rebate Offered	Cost of Rebate Implemented in Ontario
	Millions ($)	*%*	*Millions ($)*
2010	15,275	5.4	825
2011	15,673	5.4	846
2012	16,328	5.4	882
2013	16,816	5.4	908
2014	17,862	5.4	965
2015	18,662	5.4	1,008
2016	19,611	5.4	1,059
2010-2016 Cumulative Total	**120,226**		**6,492**

Source: Altus Group Economic Consulting estimates based on data from Statistics Canada

- The cost of the rebate to the provincial government would have risen from some $825 million in 2010 to over $1 billion in 2016; and
- It would have totalled about $6.5 billion from 2010-2016.

The rebate would have deterred some underground economy activity, allowing the provincial government to recoup some tax revenue lost to the underground economy. Figure 7 shows the net savings to the provincial government, had the prevention rate (i.e. the share of underground economy activities prevented by the implementation of the rebate) been 50%.

Figure 7

Estimated Provincial Government Savings from Implementation of a 5.4% Across-the-board Rebate on Residential Renovation Work Done by Contractors, Ontario, 2010-2016

Year	Tax Leakages	Tax Leakage Recovered**	Cost of Rebate	Estimated Net Government Savings*
		Millions ($)		
2010	1,033	517	825	(308)
2011	1,051	526	846	(321)
2012	1,083	541	882	(340)
2013	1,085	542	908	(366)
2014	1,185	593	965	(372)
2015	1,230	615	1,008	(393)
2016	1,270	635	1,059	(424)
2010-2016 Cumulative Total	**7,938**	**3,969**	**6,492**	**(2,523)**

* Provincial government only

** Assuming a 50% prevention rate

Source: Altus Group Economic Consulting estimates, based on data from Statistics Canada, The Ontario Construction Secretariat and the 2008 Altus Group Paper, Sales Tax Harmonization and the Residential Renovation Sector

Under this scenario, an estimated $4.0 billion in tax leakages would have been recouped from 2010-2016, cutting the estimated taxes leaked to the underground economy activity in half. The rebate would have cost the provincial government about $2.5 billion (or about $360 million per year) from 2010-2016. However, this analysis assumes a 50% prevention rate, it could be also have been higher, leading to additional government savings.

It is important to highlight that the rebate would have not cost the federal government anything to implement, but would have resulted significant savings through recouped personal and business income taxes as well as CPP and EI payments. Under the 50% prevention rate scenario, it is estimated that the federal government could have saved some $4.1 billion from 2010-2016. Therefore, the implementation of a rebate in Ontario would have been extremely beneficial for the federal government.

7 A TAX CREDIT FOR ENERGY EFFICIENT RENOVATIONS WOULD COMBAT THE UNDERGROUND ECONOMY AND GHG EMISSIONS

The underground economy continues to be a problem plaguing the construction industry. If the provincial government were to consider a targeted, permanent, Energy Efficiency Home Renovation Tax Credit, it would be helpful to both combat the underground economy and address greenhouse gas (GHG) emissions through improvements in the energy performance of Ontario's 4.8 million existing homes. Through the Ministry of Municipal Affairs Coordinated Review of the Greater Golden Horseshoe's four land-use plans, the Advisory Panel, chaired by David Crombie noted that:

> When the energy efficiency requirements in the 2012 Building cod came into effect in January 2017, houses constructed after that point will consume only 50 percent of the energy they would have used in 2005. However, the Building Code primarily deals with new construction, which comprises only one per cent of the overall building stock on an annual basis. Therefore, it will be essential to improve the efficiency of existing buildings[14]

Existing buildings in the residential sector account for 10.9% of Ontario's carbon emissions[15] and it's important that the provincial government take immediate steps to improve the performance of existing homes in the province. Millions of existing homes are decades old and were built at a time when energy performance was not a priority. Furthermore, a certain portion (about one-tenth) of Ontario's current housing stock was built prior to the introduction of the first National Building code in 1941, as a result many of these homes may still lack adequate insulation. The tax credit could be targeted and tailored to encourage existing homeowners to improve energy efficiency and to achieve a number of specific public policy objectives related to climate change mitigation and adaption.

[14] The Advisory Panel on the Coordinated Review of the Growth Plan for the Greater Golden Horseshoe, the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan and the Niagara Escarpment Plan, *Planning for Health, Prosperity and Growth in the Greater Golden Horseshoe: 2015-2041*, Ministry of Municipal Affairs and the Ministry of Housing, December 2015.

[15] Natural Resources Canada, *Comprehensive Energy Use Database*, 1990 to 2012.

Regarding the underground economy, such a measure would have benefit of strongly encouraging consumer to use legitimate contractors and creating a paper trail to deter underground activity while stimulating economic activity.

7.1 The Underground Economy in Energy Efficient Contractor Renovations Totalled $2 billion in 2016

Figure 8 shows the estimated amount of spending on energy-efficient renovations undertaken by contractors in 2016. It is estimated that some $5.2 billion (or 27% of total expenditures[16]) was spent on energy efficient renovations in 2016.

Based on the estimated underground economy rate in 2016, Altus Group estimates that some $2 billion in spending on energy efficient renovations leaked to the underground economy.

Figure 8

Estimated Contractor Renovation Spending on Energy Efficient Upgrades and Estimated Spending Flowing to the Underground Economy, Ontario, 2016

Year	Total Contractor Renovation Spending	Spending on Energy Efficient Renovations*	Underground Economy Rate	Value of UE Spending on Energy Efficient Renovations
	Millions ($)	*Millions ($)*		*Millions ($)*
2016	19,611	5,238	38%	2,008

* Based on an estimated share of 27% of total contractor renovation work dedicated to energy efficient upgrades. This factor is based on an analysis of Survey of Household Spending data

Source: Altus Group Economic Consulting estimates based on data from Statistics Canada, The Ontario Construction Secretariat and the CHBA Pulse Survey

Figure 9 shows the provincial taxes which could have been collected had the underground economy not existed, as well as what was estimated to have been actually collected in 2016.

- Had there been no underground economy, there could have been some $890 million in taxes (i.e. HST, EHT, WSIB, income taxes)

[16] This 27% share was estimated based on an analysis of Statistics Canada data and was derived from expenditures on the following renovation projects: Renovation work done on heating and/or air conditioning equipment, renovations on windows and exterior doors, renovations on exterior walls, siding, soffits, facia, chimneys and foundations, renovations on insulation and those done on structural additions or extensions.

collected by the provincial government from energy efficient renovations done by contractors;

- However, given the presence of the underground economy, only about $550 million is estimated to have been actually collected; and
- As a result, about $340 million in potential provincial tax revenues leaked underground, with the HST accounting for some $161 million of this total.

Figure 9

Estimated Taxes* Collected by the Provincial Government from Energy Efficient Contractor Renovation Spending and the Tax Leakage as a Result of Underground Economy Activity, Ontario, 2016

Year	Spending on Energy Efficient Renovations**	Potential Provincial Taxes Collected from EE Renovations if there is NO Underground Economy	Actual Estimated Taxes Collected (with Underground Economy) from EE renovations	Estimated Tax Leakage
		Millions ($)		
2016	5,238	890	551	339

* Provincial taxes considered are personal and business income taxes, EHT, WSIB and provincial portion of HST

** Based on an estimated share of 27% of total contractor renovation work dedicated to energy efficient upgrades. This factor is based on an analysis of the Survey of Household Spending produced by Statistics Canada

Source: Altus Group Economic Consulting estimates based on data from Statistics Canada, The Ontario Construction Secretariat and the CHBA Pulse Survey

7.2 A Tax Credit Provided for Energy Efficient Home Renovations Would Have Curtailed Underground Economy Activity

A tax credit introduced for energy efficient home renovations would incent "good behaviour" by offering a tax credit to those that collect receipts from legitimate business and submit those receipts to the CRA. A well-structured Energy Efficiency Home Renovation Tax Credit would bring in additional tax revenues that are currently leaking to the underground.

Figure 10 shows the potential tax revenues which could have been recouped in 2016 had a tax credit for energy efficient home renovations been in place under different prevention rate scenarios.

- If 35% of underground economy had been deterred by the tax credit, some $**119 million** in additional taxes could have been collected by the provincial government from energy efficient home renovations

done by contractors. Notably the provincial portion of the HST would have accounted for **$56 million** of this total;

- If 50% of underground economy activity had been prevented, than **$170 million** could have been recouped by the provincial government. The HST recovered by the government would have totalled **$80 million**; and
- Some **$220 million** could have been recovered by the provincial government had a tax credit been available to homeowners and 65% of underground economy was deterred. HST would have accounted for **$104 million** of this total.

Figure 10

Estimated Provincial Taxes* Collected Under Different Prevention Rates due to the Implementation of a Rebate on Energy Efficient Residential Renovations Done Through Contractors, Ontario, 2016

		Scenarios of U/E Prevention Rates		
	Actual Estimated Provincial Taxes Collected (with Underground Economy) from EE Renovations	Estimated Provincial Taxes Collected With **35% Prevention Rate**	Estimated Provincial Taxes Collected With **50% Prevention Rate**	Estimated Provincial Taxes Collected With **65% Prevention Rate**
Year		*Millions ($)*		
2016	551	670	720	771
Taxes Recovered Under Different Prevention Rates		**119**	**170**	**220**

* Provincial taxes considered are personal and business income taxes, EHT, WSIB and provincial portion of HST

Source: Altus Group Economic Consulting estimates based on data from Statistics Canada, The Ontario Construction Secretariat and the CHBA Pulse Survey

The cost to the provincial government of implementing a new Energy Efficiency Home Renovation Tax Credit would depend on the size of the rebate offered.

Figure 11 shows the potential net benefits in terms of tax leakages recovered and the costs associated with the provincial government implementing either a 5.4% rebate (i.e. keeping the rebate the same as was suggested in the 2009 Altus Group report) or a 3% rebate. Under this scenario, the rebate starts at a minimum of $10,000 spent on renovations and maxes out at $50,000. The benefits are evaluated for 35%, 50%, and 65% prevention rate scenarios.

- If a 5.4% rebate were offered, it would cost about $150 million to the provincial government. If only 35% of underground economy activity were deterred, then the net fiscal impact would be modestly negative for the provincial government. However, it would easily be outweighed by the other benefits associated with deterring underground economy activity (e.g. improving safety, reducing consumer risk etc. as well as supporting public policies to reduce GHG emissions);
- However, if a larger portion of underground economy was deterred, then the provincial government would financially benefit as the taxes recovered from the underground economy would be greater than the cost of the rebate;
- If a 3% rebate were offered, the share of underground economy activity deterred would likely fall on the lower side of the spectrum (i.e. 35% prevention rate). However, there would still be a positive net financial benefit to the provincial government, among all of the other positive benefits; and
- A rebate with a minimum and maximum threshold would also limit potential exposure to the provincial treasury by capping the rebate for larger projects.

Figure 11

Estimated Cost and Benefits of the Implementation of Different Rebates on Contractor Energy Efficient Residential Renovation Spending, for Renovations Priced Between 10K and 50K, Overall Provincial Taxes, Ontario, 2016

			Scenarios of U/G Prevention Rates		
	Rebate Offered	Total Cost of Rebate	Estimated Provincial Taxes* Recovered Under a **35% Prevention Rate**	Estimated Provincial Taxes Recovered Under a **50% Prevention Rate**	Estimated Provincial Taxes Recovered Under a **65% Prevention Rate**
Year	*(%)*		*Millions ($)*		
2016	3.0%	85	119	170	220
2016	5.4%	153	119	170	220
Net Benefit (3.0% rebate)			**33**	**84**	**135**
Net Benefit (5.4% rebate)			**(35)**	**16**	**67**

* Provincial taxes considered are personal and business income taxes, EHT, WSIB and

Source: Altus Group Economic Consulting estimates based on data from Statistics Canada, The Ontario Construction Secretariat and the CHBA Pulse Survey

8 CONCLUSIONS

In July 2010, the provincial government introduced the Harmonized Sales Tax (HST), combining the provincial PST and the federal GST into one tax. There were concerns at the time that, because the implementation of the HST would triple the sales tax rate on contractors' renovations in Ontario, it would lead to increased underground economy activity;

Subsequent to the implementation of the HST, the share of residential renovation spending through contractors that leaked underground has remained elevated, fluctuating between 38% - 40% from 2010 – 2016;

The underground economy in the construction industry presents a myriad of problems, including:

- Introducing risks to consumers;
- Introducing health and safety risks to construction workers;
- Undermining the integrity of the tax system; and
- Creating barriers for the industry's future development.

A major problem with the underground economy is that it causes serious revenue losses to governments at all levels from:

- Loss of HST revenue;
- Loss of corporate and personal income tax revenues;
- Loss of other government revenues: The government also loses revenues from other sources to the underground economy, including Canadian Pension Plan (CPP) contributions, Employment Insurance (EI) premiums, Workplace Safety & Insurance Board (WSIB) premiums and Employer Health Tax (EHT) remittances; and
- Loss of revenue for municipalities: The underground economy in construction also causes revenue losses to municipalities for items such as building permits, municipal licensing revenues, etc.

It is estimated that provincial and federal governments lost a substantial $16 billion in potential tax revenues through residential renovations undertaken by contractors, owing to the underground economy.

If the provincial government had introduced a tax rebate directly to consumers targeting the contractor renovation sector, the negative impacts of the underground economy would have been mitigated. The introduction of a

rebate would have created an extra incentive for homeowners to properly document and report their contractor renovation projects, thereby lessening the amount of contractor renovation spending lost to the underground economy. Had a rebate been introduced, a substantial portion of tax revenues lost to the underground economy could have been recouped, at a relatively minimal direct financial cost to the provincial government and no cost to the federal government.

A significant portion of residential renovations done by contractors are for energy efficient upgrades. The introduction of an Energy Efficient Home Renovation Tax Credit would have beneficial impacts for the provincial government through 2 main channels:

- It would reduce the amount of taxes leaking to the underground economy by incentivizing homeowners to properly document and report their contractor renovation projects; and
- It would help the provincial government meet policy objectives to mitigate against climate change through the reduction in GHG emissions from the residential sector.

Had the provincial government introduced a tax credit for energy efficient home renovations, it would have recovered a significant portion of tax revenues lost to the underground economy while helping combat pollution by stimulating energy efficient renovations and lowering carbon emissions from existing homes. It therefore makes good sense to implement an Energy Efficient Home Renovation Tax Credit.