

CANADA-MANITOBA AGREEMENT ON THE TRANSFER OF FEDERAL GAS TAX AND PUBLIC TRANSIT FUNDS

PROJECT OUTCOMES REPORT 2009 - 2012

MANITOBA MUNICIPAL GOVERNMENT Fall 2014



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1. EXECUTIVE SUMMARY

Purpose

The Manitoba Gas Tax Fund/Public Transit Fund (GTF/PTF) Project Outcomes Report is a public document reporting on the outcomes achieved through federal GTF/PTF investment on environmentally sustainable municipal infrastructure.

The report is intended to provide information on how cumulative GTF/PTF investments in projects completed between January 1, 2009 and December 31, 2012 have contributed to the programs' shared national objectives of cleaner air, cleaner water and reduced green house gas emissions (GHG).

The GTF and PTF agreements require all provincial and territorial governments and municipalities to report on project outcomes.

Program Background

Established in 2005, the federal GTF and PTF are outcomes based programs designed to achieve or contribute towards environmental sustainability.

The Canada-Manitoba Gas Tax Agreement, signed in November 2005, committed \$167.3 million of federal gas tax revenues to Manitoba municipalities over a five-year period, 2005 through 2009. A further \$267.6 million or approximately \$66.2 million per year was made available for investment in Manitoba municipalities through a four-year extension of the gas tax program, starting in 2010.

In March 2005, the Canada-Manitoba Public Transit Agreement was signed, providing a onetime federal transfer of \$14.65 million for municipal transit infrastructure, allocated to the four cities in Manitoba with transit systems at the time – Cities of Winnipeg, Brandon, Thompson and Flin Flon.

The GTF provides funding for the construction, rehabilitation and/or expansion of municipal infrastructure in seven major investment categories: local roads and bridges, public transit, water, waste water, community energy systems, solid waste and capacity building.

The PTF objective is to improve public transit service and contribute to shared national outcomes of reduced smog-forming emissions, reduced GHGs and reduced energy use. Specific outcomes include improvements to transit infrastructure, system efficiency and ridership.

Project Outcome Indicators and Outcomes Reports

The GTF and PTF agreements require all provincial and territorial governments to produce a Project Outcomes Report to demonstrate how federal GTF and PTF have achieved or contributed towards national outcomes of cleaner air, cleaner water and reduced GHGs.

To measure the outcomes, Manitoba developed performance indicators in consultation with Manitoba municipalities. The indicators are simple, credible and easy for municipalities to collect and follow a national performance measurement framework. The indicators demonstrate direct results towards intended outcomes.

Manitoba produced its first Project Outcomes Report in October 2009, which covered the first four years (2005 -2008) of the GTF/PTF.

This report constitutes Manitoba's second GTF/PTF Project Outcomes Report. The Outcomes Report focuses on cumulative GTF/PTF investments for completed projects between 2009 and 2012, as well as how the projects contributed to the GTF/PTF overall program objectives of cleaner air, cleaner water, and reduced GHG emissions.

Outcome Highlights

Between 2009 and 2012, Manitoba municipalities invested \$217.6 million of their \$264.3 million GTF/PTF allocation to complete a total of 665 projects.

The \$217.6 million in GTF/PTF spent levered an additional \$232.1 million in funding from other sources (e.g. other federal, provincial, local or non-governmental funding) resulting in total spending of \$449.7 million on the 665 projects.

Municipalities spent their GTF/PTF on all project categories. Local roads and bridges (76.6%), public transit (10.9%), water (5.7%), and waste water infrastructure (3.5%) project categories account for 96.6% of total gas tax expenditures. The other project categories: community energy systems / environmental energy improvements, solid waste infrastructure, and capacity building, make up the remaining 3.4% of total gas tax expenditures.

Key Project category highlights include:

Local Roads and Bridges

- 1,330.8 km of new or improved roads that are safer/more efficient
- 94.6 km reduction in driving distances due to bridge improvements
- 12.6 km of new pathways (walking paths and sidewalks)

Public Transit

- 50 transit buses and handi-transit vehicles purchased
- 1 stage of the Southwest Rapid Transit Corridor completed in the City of Winnipeg

Water

- 1,397 new households connected to a municipal water system
- 98,276 meters of rural water lines/pipes installed/replaced
- 927.4 cubic meters/day increase in water treatment capacity
- 1,307 water meters installed for billing accuracy

Waste Water

- 3,469 new households connected to a municipal waste water system
- 93,386 cubic meters/ day increase in waste water collection/treatment capacity
- 6,800 meters of sanitary sewer pipes installed
- 300 meters of storm sewer pipes installed

Community Energy Systems

- 13 municipal buildings built with energy efficient heating systems
- 9 municipal buildings retrofitted with energy efficient components

Solid Waste

- 1,266 tonnes/year of solid waste diverted from landfills
- 9 landfills improved, including installation of weigh scales to determine tipping fees

Capacity Building

• 2 infrastructure renewal plans completed

Conclusion

Manitoba municipalities have benefited greatly from the Canada-Manitoba Gas Tax Fund which provides long-term, stable and predictable levels of funding to address municipal infrastructure priorities.

Projects funded through the GTF/PTF are contributing to the shared national objectives of cleaner air, cleaner water and reduced GHGs. The projects indicate that work is being done to:

- Reduce GHGs through smoother roads, new transit buses and handi-transit vehicles, and energy efficient municipal building retrofits;
- Create cleaner water through upgraded water and waste water treatment systems and pipe replacements; and
- Create cleaner air through recycling programs and landfill improvements

2. FEDERAL GAS TAX AND PUBLIC TRANSIT FUND BACKGROUND

In 2005 the federal government launched the Gas Tax Fund (GTF) and Public Transit Fund (PTF) programs as a means of transferring a share of federal gas tax revenues to provinces/territories and/or municipalities for municipal infrastructure.

In November 2005, Canada and Manitoba signed *The Canada-Manitoba Agreement on the Transfer of Federal Gas Tax Revenues for Cities and Communities*, transferring a total of \$167.3 million in federal gas tax to Manitoba municipalities from 2005 to 2009.

Earlier in March 2005, Canada and Manitoba entered into a separate agreement providing for a one-time federal transfer of \$14.65 million for municipal transit infrastructure. The PTF is allocated to the four cities in Manitoba with transit systems – Winnipeg, Brandon, Thompson, and Flin Flon.

On June 9, 2009, the Province and the Government of Canada signed the Amending Agreement to the original Gas Tax Agreement, which confirmed local governments' gas tax allocations to 2014.

The Amending Agreement transfers a total of \$264.6 million to municipalities and Northern Affairs communities over four years (2010 to 2014), or approximately \$66.2 million per year. This funding is provided on the same terms and conditions as under the original Gas Tax Agreement.

The GTF is an outcomes-based transfer program designed to contribute to environmental sustainability in support of shared national objectives of cleaner air, cleaner water, and reduced Green House Gas (GHG) emissions. The GTF provides funding for the construction, rehabilitation and/or expansion of municipal infrastructure in seven major investment categories:

- Local Roads and Bridges
- Public Transit
- Water
- Waste Water
- Community Energy Systems
- Solid Waste
- Capacity Building

The PTF program shares similar environmentally sustainable outcomes. The PTF objective is to improve public transit service to Canadians and contribute to shared national outcomes of reduced smog forming emissions, reduced GHGs and reduced energy use. Specific outcomes include improvements to transit infrastructure, system efficiency, and ridership.

The GTF and PTF agreements require all provincial and territorial governments and municipalities to report annually on how the gas tax funds are spent (an Annual Expenditure

Report) and what project outcomes are achieved (an Outcomes Report). Manitoba submitted its first Outcomes Report in the fall of 2009, which covered the first four years (2005 -2008) of the GTF/PTF.

This report constitutes Manitoba's second GTF/PTF Project Outcomes Report. The Outcomes Report focuses on cumulative GTF/PTF investments for *completed* projects between 2009 and 2012, as well as how the projects contributed to the GTF/PTF overall program objectives of cleaner air, cleaner water, and reduced GHG emissions.

3. MANITOBA PRIORITIES FOR ENVIRONMENTAL SUSTAINALIBILITY

The federal GTF/PTF program's overall goal of achieving environmentally sustainable outcomes aligns with Manitoba's own priorities for environmental sustainability.

In 2008, Manitoba enacted The Climate Change and Emissions Reductions Act, which set a target of reducing GHG emissions to six per cent below 1990 levels by 2012, and required the province to report on whether emissions in 2010 were less than they were in 2000. Also in 2008, Manitoba released Beyond Kyoto, an action plan on climate change that outlined over 60 actions to reduce GHG emissions and adapt to the impacts of climate change across multiple sectors including energy, transportation, agriculture, municipalities, businesses and government operations.

Manitoba's climate change response is anchored on three pillars:

- reducing Manitoba's GHG emissions
- adapting to the anticipated impacts of climate change
- collaborating and sharing best practices with other jurisdictions

Implementing Manitoba's Climate Change Plan

Manitoba has fully implemented its 2008 to 2012 climate change plan, with over 60 actions carried out across multiple sectors. Manitoba has demonstrated progress in reducing emissions since 2000. As legislated under The Climate Change and Emissions Reductions Act (CCERA), Manitoba achieved its interim GHG emission reduction target to stabilize emissions at 2000 levels, by 2010.

The province has made significant progress in putting its GHG emission reduction programs into practice and is also undertaking several new initiatives:

- setting a provincial energy saving target of 842 megawatts (MW) of electricity by 2017, as well as expanding renewable power production through hydroelectric, geothermal, wind, solar and biomass power production
- expanding energy efficiency through new building codes and standards; programs for homeowners, low-income housing, businesses and farms; and adding on-bill financing for commercial customers

- implementing an enhanced provincial biofuels mandate
- limiting Brandon coal-fired generating station to use only in emergencies
- requiring large landfills to capture methane gas
- implementing a Clean Energy Strategy in 2012 which outlines made-in-Manitoba solutions to harness water, wind, solar, and biomass resources within the province
- introducing a tax on coal emissions that came into effect in January 2012, and dedicating 100 per cent of all coal tax revenues to support conversion to biomass energy, banning the use of coal and petroleum coke for space heating and taxing petroleum coke used for non-space heating purposes
- creating the Biomass Economy Network (BEN), a coalition of stakeholders from institutions, ENGOs, industry associations, business and government working together to grow Manitoba's biomass economy
- advocating for an improved national electrical grid that can transport clean, renewable energy to every region in Canada

Building Municipal Capacity for Climate Action

The Federation of Canadian Municipalities (FCM) reveals that about 50 percent of Canada's emissions are directly or indirectly influenced by municipal governments. Municipalities play a unique position in reducing GHG emissions and adapting to the impacts of climate change, while creating more sustainable, healthier and economically strong communities. The Manitoba government has engaged its municipalities in taking meaningful action on climate change.

Manitoba has introduced a landfill levy along with a province-wide Waste Reduction and Recycling Program (WRARS) administered by Green Manitoba, a special operating agency of the Manitoba government. This program is designed to provide support and incentives to municipalities and local government districts for recycling and waste management, including electronic waste and household hazardous waste management. The program produced the following results:

There are currently over 60 composting operations that exist in Manitoba municipalities that divert waste from landfills and contribute to reduced municipal GHG emissions.

- Between 2009 and 2012, levy revenues totalling \$32 million were paid to municipalities providing residential recycling services. In 2012, of 197 municipalities, 181 reported recycling eligible for WRARS Recycling Rebate that was worth over \$7.8 million, an equivalent of 68,328 tonnes of recycled waste (or a per capita of 66 kg/person).
- The Community-led Emissions Reduction (CLER) Program, a pilot program with 12 municipalities and six community organizations in Winnipeg and Brandon aimed to reduce 40,000 tonnes of GHG emissions by March 2012. The CLER program implemented a total of 84 GHG emissions reduction projects. Of this number, six projects were

extended beyond the originally planned life of the program. In addition, a total of almost \$372,037 was leveraged and provided in-kind contribution in the amount of almost \$600,000.

Municipal Support for Public Transit and Active Transportation

Manitoba promoted public transportation and active transportation that provide multiple benefits such as savings from fuel consumption, traffic congestion and improved health and safety for the communities. This includes:

- providing \$17.5 million toward the construction of the Phase 1 Southwest Rapid Transit Corridor, with the balance of Manitoba's capital contribution provided through Manitoba's legislated 50/50 transit partnership
- committing up to \$225 million towards future Phase 2 development of the Southwest Rapid Transit corridor, running from Pembina Highway and Jubilee Avenue to southwest Winnipeg
- providing annual operating grant funding under the 50/50 transit funding partnership with each municipality that operates a public transit system
- community-based initiatives on the annual commuter challenge that mobilizes Manitoba workplaces and communities to participate in a friendly competition to reduce GHG emissions

4. ADMINISTRATION OF THE GTF AGREEMENT

4.1. Allocation of Funding

Funding received from Canada under the GTF is advanced to municipalities before the expenditures for which they are intended are incurred. Funds flow annually in two installments, one in July and another in November, as long as all reporting and compliance requirements are met.

Under the Amending Agreement, the formula for the distribution of gas tax funds is as follows:

- 90% of gas tax funding is allocated to all municipalities and Northern Affairs communities on a per capita basis;
- 9.5% to the Cities of Winnipeg and Brandon allocated on a per capita basis;
- 0.25% for the application-based Small Communities Transit Fund (SCTF); and
- 0.25% for provincial administrative costs.

4.2. GTF Reporting

The GTF Agreement included a number of conditions for municipalities, including the submission of annual Audited Expenditure Reports (AER).

Manitoba municipalities are required to report annually on the projects funded through the GTF. The reporting is a two step process; municipalities are required to submit information electronically to an online reporting system as well as provide Audited AERs. The Individual municipal Audited AERs are then used to prepare an annual provincial report to Infrastructure Canada.

The actual project expenditures and information, including Outcomes data reported on the online reporting system is what Manitoba used to produce this Outcomes Report.

5. METHODOLOGY

5.1. Guidelines/Principles for Measuring Project Outcomes

The GTF/PTF project investments are intended to contribute to a sustainable environment. Manitoba, along with other provinces and territories, support shared national objectives of cleaner air, cleaner water, and reduced GHG emissions.

Federal and provincial officials administering the GTF/PTF identified a number of principles and/or guidelines for measuring the outcomes of GTF/PTF funded projects, including:

- Indicators should be:
 - Simple, credible, and relatively easy to collect
 - Measurable/quantifiable and attributable to the GTF/PTF project
 - Demonstrate meaningful change between pre and post project implementation
 - Expanded and further developed as required for future projects
- Report on indicators for completed projects only.
- Report on indicators for achieved outcomes and/or rationale of ancillary benefits.
- Some projects have several components representing different project categories based on: 1) the primary intent (rationale) of the project and/or 2) the category with the largest project funding investment.
- Report on indicators reflecting the full impact or outcome of the project, even if GTF represents only a portion of the project funding. However, the \$ value reported should only represent the GTF portion of the funding.
- If no quantitative measure is available, report on qualitative information explaining the rationale and how the project leads to the expected outcome.

5.2. Manitoba GTF/PTF Outcome Indicators

The Manitoba Outcome Indicators were developed following a national performance measurement framework. In developing the indicators, Manitoba consulted with relevant Manitoba government departments, the Association of Manitoba Municipalities, the City of Winnipeg, as well as the federal government and other provinces.

Appendix 1, *Manitoba GTF/PTF Project Outcome Indicators*, is a table depicting the indicators used by Manitoba to measure GTF/PTF project outcomes for each Project Category and Project Type. The chart also shows the corresponding Expected Outcome/Output (Intermediate Outcome) and Outcome Type (Project or Final Outcome) which equate to provincial and national outcomes, respectively.

These indicators were used to produce the first Outcomes Report (2005 – 2008) in October 2009 and have been used to produce this second Outcomes Report.

6. PROJECT OUTCOMES

6.1. Overview

Between January 1, 2009 and December 31, 2012, a total of \$264.3 million in GTF/PTF was allocated to Manitoba municipalities to invest in environmentally sustainable municipal infrastructure.

By the end of 2012, Manitoba municipalities had invested \$217.6 million to complete a total of 665 infrastructure projects.

The \$217.6 million in GTF/PTF spent levered an additional \$232.1 million in funding from other sources (e.g. other federal, provincial, local or non-governmental funding) resulting in total spending of \$449.7 million on the 665 infrastructure projects.

6.2. Analysis of Project Data

Manitoba municipalities spent their GTF/PTF on all project categories. Figure 1 and Table 1 show that between 2009 and 2012, Local roads and bridges (76.6%), public transit (10.9%), water (5.7%), and waste water infrastructure (3.5%) project categories account for 96.6% of total gas tax expenditures. The other project categories: community energy systems / environmental energy improvements, solid waste infrastructure, and capacity building, make up the remaining 3.4% of total gas tax expenditures.



Figure 1: 2009 – 2012 GTF Expenditures by Project Category

Table 1: 2009 – 2012 GTF Expenditures by Project Category

2009 - 2012 GTF Expenditures by Project Category					
Project Category	Number of Projects	Federal GTF	% of Total GTF Expenditure		
Local Roads and Bridges	417	\$166,679,955	76.6%		
Public Transit	32	23,662,427	10.9%		
Water	99	12,328,339	5.7%		
Wastewater	60	7,614,198	3.5%		
Subtotal:	608	\$210,284,919	96.7%		
Other Projects:					
Community Energy Systems	25	3,889,370	1.8%		
Solid Waste	21	2,265,674	1.0%		
Capacity Building	11	1,140,822	0.5%		
Subtotal Other Projects:	16	\$7,295,866	3.3%		
Total	665	\$217,580,785	100%		

6.3. Analysis of Outcome Measures

GTF and PTF funds are invested in environmentally sustainable municipal infrastructure in seven infrastructure project categories. These projects are intended to achieve the national outcomes of cleaner air, cleaner water and reduced GHG emissions.

Manitoba municipalities reported both quantitative and/or qualitative outcomes; not all project outcomes were quantified. The quantified outcomes in this report therefore do not reflect a comprehensive roll-up of all quantifiable outcomes. The following are the results of the analysis of the reported project outcomes:

Local Roads and Bridges

- 1,330.8 km of new or improved roads that are safer/more efficient
- 94.6 km reduction in driving distances due to bridge improvements
- 12.6 km of new pathways (walking paths and sidewalks)

Public Transit

- 44 transit buses purchased
- 6 handi-transit vehicles purchased
- 1 stage of the Southwest Rapid Transit Corridor completed in the City of Winnipeg
- 592 new fare collection boxes installed
- 1 transit building refurbished
- 1 major transit terminal refurbished

Water

- 1,397 new households connected to municipal water system
- 98,276 meters of rural water lines/pipes installed/replaced
- 927.4 cubic meters/day increase in water treatment capacity
- 1,307 water meters installed for billing accuracy

Waste Water

- 3,469 new households connected to a municipal waste water system
- 93,386 cubic meters/ day increase in waste water collection/treatment capacity
- 6,800 meters of sanitary sewer pipes installed
- 300 meters of storm sewer pipes installed

Community Energy Systems

- 13 municipal buildings were built with energy efficient heating systems
- 9 municipal buildings were retrofitted with energy efficient components
- 3 projects involved the installation of street lights

Solid Waste

- 1,266 tonnes/year of solid waste diverted from landfills
- 9 landfills were improved, including installation of weigh scales to determine tipping fees

Capacity Building

• 2 infrastructure renewal plans completed

7. PROJECT EXAMPLES BY CATEGORY

Manitoba municipalities have invested their GTF/PTF in environmentally sustainable infrastructure projects to achieve overall program outcomes of cleaner air, cleaner water and reduced greenhouse gas emissions.

GTF/PTF has enabled municipalities to: improve municipal transit systems, upgrade local roads and bridges, upgrade water and sewer systems, provide new portable water and cleaner waste water treatment systems, as well as improve efforts to divert solid waste from municipal landfills.

7.1. Local Roads and Bridges

This category accounts for most of the GTF spent on eligible projects between 2009 and 2012 at \$166.7 million or 76.6% of total GTF spent. It also accounts for majority of the projects completed at 417 or 62.7%. The category consists of three sub-categories: local roads, bridges and active transportation.

Local Roads

Final Outcome – Cleaner Air	
Total # of projects	355
# Km of new or improved roads	1,330.8
Total GTF used	\$142.2 million
Total funds levered	\$66.7 million
Total project costs	\$208.9 million

Other outcomes identified by municipalities:

- Improved drainage
- Improved traffic flow
- Less dust and use of dust abatement chemicals
- Smoother drives improved fuel efficiency

City of Winnipeg - Local and Regional Street Renewal

The City of Winnipeg, Manitoba's capital and largest city, receives the majority of GTF/PTF allocated to Manitoba. Between 2009 and 2012, the City spent its GTF on two categories: local roads and bridges and public transit.

The City used GTF to improve 206.58 km of regional/arterial roadways and 288.86 km of local roadways as part of its annual local and regional street renewal program.

The renewed roads have resulted in improved traffic flow, reduced idling and improved fuel consumption.

Bridges

Final Outcome – Cleaner Air, reduced GHGs		
Total # of projects	32	
# Km of travel distance saved	94.6	
Total GTF used*	\$22.1 million	
Total funds levered*	\$0.3 million	
Total project Costs*	\$22.4 million	

*Total does not include \$195 million for Winnipeg's Disraeli Bridge project, of which Winnipeg will fund partly through annual P3 payments using GTF starting in 2012. Winnipeg will fund the balance of the Disraeli Bridge project costs from other sources.

City of Winnipeg - Disraeli Bridges Project

In October 2012, the City of Winnipeg officially opened the new Disraeli Bridge and overpass, the largest bridge project in the City's history.

The total \$195 million cost of the Disraeli Bridge Project was financed by the City largely through a 30-year Public Private Partnership (P3), in which the City will use GTF to make annual payments.

The new bridge includes a 4 lane divided roadway, designed to accommodate possible expansion to 6 lanes in the future, including widened shared vehicle and cyclist curb lanes and one pedestrian sidewalk on the east side of the bridge. The new bridge has reduced vehicle travel times and idling in traffic jams as well as encouraged residents in the northeastern part of the City to walk or cycle to downtown rather than drive.



The new Disraeli Bridge in Winnipeg

Active Transportation

Final Outcome – reduced GHGs		
Total # of projects	30	
# Km of sidewalks/walking paths	12.6	
Total GTF used	\$2.2 million	
Total funds levered	\$2.2 million	
Total project Costs	\$4.4 million	

Other outcomes identified by municipalities:

- Smoother walking surfaces
- Separation of vehicular and pedestrian traffic
- Improved safety and reduced travel times
- Safer trails

Town of Stonewall - New Sidewalks and Walking Paths

Stonewall is located along Manitoba Provincial Trunk Highway 67, just 25 kilometers north of the City of Winnipeg. The town improved/constructed 2.61 km of sidewalks and walking paths as part of its annual street renewal program.

The sidewalks and paths contribute to more pedestrian and less vehicle traffic within the community, resulting in improved air quality and reduced GHGs.



7.2. <u>Public Transit</u>

Manitoba municipalities spent a total of \$23.7million on 32 public transit projects. Projects included: purchase of transit buses, handi-transit vehicles, installation of bus shelters and electronic signs, refurbishing a major bus terminal and transit building, installing fare collection boxes, and other transit capital assets (priority signals/queue jumpers).

Projects under this category resulted in improved energy use, cleaner air and reduced GHG emissions. Municipalities also reported improvements in passenger service, passenger amenities and overall transit performance.

Final Outcome – Reduced GHGs	
Total # of projects	32
Total GTF/PTF used*	\$23.7 million
Total funds levered	\$142.8 million
Total project Costs	\$166.5 million

Outcomes identified by municipalities:

- 44 transit buses purchased
- 6 handi-transit vehicles purchased
- 1 stage of the Southwest Rapid Transit Corridor completed in the City of Winnipeg
- 592 new fare collection boxes installed
- 1 transit building refurbished
- 1 major transit terminal refurbished
- 3 projects to upgrade bus stops/shelters and electronic signs

*Federal PTF

Included in the \$23.7 million spent is \$10.8 million in federal PTF allocations provided as a one-time federal transfer in 2005 for municipal transit infrastructure. Funds were allocated to the four cities in Manitoba with transit systems at the time – Cities of Winnipeg, Brandon, Thompson and Flin Flon. These municipalities held most of the funds in reserve for future eligible projects. Between 2009 and 2012, the four municipalities spent all the funds held in reserve on the following projects:

- Winnipeg purchase of 31 transit buses and upgrades to bus stops/shelters
- Brandon purchase of 11 transit buses
- Thompson purchase of 2 transit buses
- Flin Flon installation of a bus shelter and signage

City of Winnipeg - Southwest Rapid Transit Corridor Project: Stage 1

In April 2012, the City of Winnipeg officially opened the Southwest Rapid Transit Corridor to Rapid Transit service. Rapid Transit provides fast, reliable transit services between the downtown area and the southwest part of the City.

The \$138 million project was funded by all three levels of government; Manitoba, the Federal Government and City of Winnipeg partly through its GTF and PTF allocations.

Construction of the Southwest Rapid Transit Corridor – Stage 1 began in 2009 and was substantially completed by the end of 2011. The project included the construction of a new Transitway (a separate high-speed corridor for buses) from Queen Elizabeth Way and Stradbrook to Pembina and Jubilee, including new rapid transit stations at key locations along the route.

Winnipeg's Osborne St. Rapid Transit Station – Interior View



Transitway tunnel underneath the CN rail main line in Winnipeg



City of Thompson - Purchase of New Transit Buses

The city of Thompson purchased two new transit buses to replace the existing fleet under the operating contract by Grey Goose. The former Grey Goose buses were highway coaches, and as such they were not wheelchair accessible and were too large to operate on city streets.

The total \$900,000 project cost was funded through the GTF and PTF. The new buses are wheelchair accessible and provide comfortable passenger travel experience.



Thompson's new transit buses

City of Selkirk - New Transit System

In May 2011, The City of Selkirk launched its new public transit system, making it the fifth municipality with a public transit system in Manitoba.

The City used \$187.5 in GTF and PTF to purchase a new bus and the install bus stop shelters and signage. Manitoba is providing on-going operating support for Selkirk's new transit service through the Province's 50/50 Transit funding partnership, which provides a grant equal to 50% of the net operating costs of municipal transit systems.

The new system provides local residents with an affordable and environmentally friendly means of travel.

Selkirk's new transit system Payles FXU 619

7.3. <u>Water</u>

Manitoba municipalities spent \$12.3 million on 99 water infrastructure projects (14.9% of total GTF/PTF projects). GTF funds levered another \$10 million in other funding, resulting in total spending of \$22.3 million on municipal water infrastructure.

Projects under this category resulted in improved water quality/safety and cleaner water.

Final Outcome – Cleaner Water	
Total # of projects	99
Total GTF used	\$12.3 million
Total funds levered	\$10.0 million
Total project Costs	\$22.3 million

Outcomes identified by municipalities:

- 1,397 new households connected to municipal water system
- 98,276 meters of rural water lines/pipes installed/replaced
- 927.4 cubic meters/day increase in water treatment capacity
- 1,307 water meters installed for billing accuracy

RM of Macdonald - Water Pipeline Extension and Low Pressure Sewer Collection Lines

The RM of MacDonald installed 6,380 meters of water pipelines to improve potable water distribution system to customers located in the north east part of the municipality. The water distribution pipeline provides additional capacity and service to 600 new households. The project also involves the installation of an additional Low Pressure Sewer collection line along McGillivray Blvd.

The RM has already invested over \$450,000 in GTF and will use future gas tax allocations to pay for half of the total \$3.7 million project cost.

City of Selkirk - Water Treatment Plant Expansion

The City of Selkirk invested \$1.0 million to expand its water treatment plant. The expanded plant will provide additional capacity to serve current and future demand for clean and safe drinking water at affordable rates to local residents. GTF was part of an \$11 million total project cost.



RM of Rockwood – Installation of Water and Sewer Lines in Gross Isles and Gunton

The RM of Rockwood invested \$1.6 million in GTF to install water and sewer lines in the communities of Gross Isle and Gunton. The projects leveraged another \$4.2 million from other sources for a total project cost of \$5.8 million.

610 new households have been connected to the municipal water and sewer systems as a result of this project.

7.4. <u>Waste Water</u>

Manitoba municipalities spent \$7.6 million on 60 waste water projects (9% of total GTF/PTF projects). GTF funds levered another \$6.4 million in other funding, resulting in total spending of \$14 million on municipal waste water infrastructure.

Projects under this category resulted in increased water conservation/protection and cleaner water.

Final Outcome – Cleaner Water	
Total # of projects	60
Total GTF used	\$7.6 million
Total funds levered	\$6.4 million
Total project Costs	\$14.0million

Outcomes identified by municipalities:

- 3,469 new households connected to a municipal waste water system
- 93,386 cubic meters/ day increase in waste water collection/treatment capacity
- 6,800 meters of sanitary sewer pipes installed
- 300 meters of storm sewer pipes installed

Town of Minitonas & RM of Minitonas - Lagoon Expansion

The Town and RM of Minitonas have invested GTF to expand the existing Minitonas lagoon. The expanded lagoon will provide additional capacity to accommodate up to 150 new household connections in both municipalities. The increased capacity will also increase the standard of treatment of wastewater for existing residents.

The two municipalities have already invested almost \$240,000 in gas tax funds and will use future gas tax allocations to pay for up to half of the total \$855,000 project cost.

RM of Cartier - Installation of Low Pressure Sewer in St. Eustache

The RM of Cartier has invested \$418,641 in GTF to connect 120 households in the community of St. Eustache to a low pressure sewer system. This eliminates the need for septic tanks and fields which were prone to failure.

The projects leveraged another \$1.1 million from other sources for a total project cost of \$1.5 million.

7.5. <u>Community Energy Systems</u>

Manitoba municipalities spent \$3.9 million on 25 community energy projects (3.8% of total GTF/PTF projects). GTF funds levered another \$3.6 million in other funding, resulting in total spending of \$7.5 million on community energy projects. Projects under this category resulted in lower heating bills, increased energy efficiency and improved energy use.

Final Outcome – Reduced GHGs	
Total # of projects	25
Total GTF used	\$3.9 million
Total funds levered	\$3.6 million
Total project Costs	\$7.5 million

Outcomes identified by municipalities:

- 13 municipal buildings were built with energy efficient heating systems
- 9 municipal buildings were retrofitted with energy efficient including installation of new geo-thermal heating
- 3 projects involved the installation of street lights

Town of Carberry/RM of North Cypress – Ice Plant/Heating System Replacement

The Town of Carberry and the neighbouring Rural Municipality of North Cypress retrofitted their arena, replacing the existing ammonia ice plant with a new geothermal heating and cooling system.

The Town invested \$390,000 in GTF towards a total \$1.0 million project cost. The new system will reduce GHGs as well as the operating costs for the arena.



New geothermal systems at the Carberry arena

7.6. Solid Waste

Manitoba municipalities spent \$2.3 million on 21 solid waste infrastructure projects (3.2% of total GTF/PTF projects). Projects under this category resulted in diversion of waste from landfills, increased recycling programs and recycling awareness.

Final Outcome - Reduced GHGs	
Total # of projects	21
Total GTF used	\$2.3 million
Total funds levered	\$0 million
Total project Costs	\$2.3 million

Outcomes identified by municipalities:

- 1,266 tonnes/year of solid waste diverted from landfills
- 9 landfills were improved, including installation of weigh scales to determine tipping fees

Town of The Pas - New Landfill Weighscale

Town of The Pas installed a new weigh scale at the landfill entrance as required under the Waste Reduction and Recycling Support (WRARS) program to determine WRARS levy and tipping fees. The town invested \$91,000 in GTF towards a total \$219,000 project cost.

The levy and tipping fees are expected to encourage the diversion of solid waste and promote community recycling and composting efforts. By reducing the amount of solid waste headed to landfills, GHGs produced and then released into the atmosphere will be reduced.



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7.7. Capacity Building

Manitoba municipalities spent \$1.1 million on 11 capacity building projects (1.7% of total GTF/PTF projects). Projects under this category resulted in better infrastructure planning, use of new technology and research.

Final Outcome – Cleaner Air, Cleaner Water, reduced GHGs			
Total # of projects	11		
Total GTF used	\$1.1 million		
Total funds levered	\$0.02 million		
Total project Costs	\$1.1 million		

Outcomes identified by municipalities:

• 2 infrastructure renewal plans completed

RM of St. Francois Xavier - Secondary Plan

The RM of St. Francois Xavier spent \$26,772 in GTF to complete a background report needed to completing a secondary community plan that would provide a 20-year framework for sustainable development in the community. The report included carrying out a community survey, conducting a workshop and engaging a consultant.

8. CONCLUSION

Manitoba municipalities have benefited greatly from the Canada-Manitoba Gas Tax Fund. The program has provided long-term, stable and predictable levels of funding to address municipal infrastructure priorities.

Manitoba municipalities invested \$217.6 million of their \$264.3 million GTF/PTF allocation to complete a total of 665 projects. The GTF/PTF spent levered an additional \$232.1 million in funding from other sources (e.g. other federal, provincial, local or non-governmental funding) resulting in total spending of \$449.7 million on the 665 projects.

Local roads and bridges (76.6%), public transit (10.9%), water (5.7%), and waste water infrastructure (3.5%) project categories account for 96.6% of total gas tax expenditures. The other project categories: community energy systems / environmental energy improvements, solid waste infrastructure, and capacity building, make up the remaining 3.4% of total gas tax expenditures.

The results of this report show that municipalities are completing projects that meet the needs of the local populations and contribute to the national outcomes of cleaner air, cleaner water and reduced GHGs. The projects indicate that work is being done to:

- Reduce GHGs through smoother roads, new transit buses and handi-transit vehicles, and energy efficient municipal building retrofits;
- Create cleaner water through upgraded water and waste water treatment systems and pipe replacements; and
- Create cleaner air through recycling programs and landfill improvements

This report also shows that environmentally sustainable infrastructure can also provide supplementary benefits such as improved health, pedestrian safety and service efficiencies.

The Federal Government's move to make the GTF a permanent program has been well received. GTF will continue to provide Manitoba municipalities with predictable long-term funding to address local needs and priorities, while continuing to meet long-term national objectives.

MANITOBA GTF/PTF - PROJECT OUTCOME INDICATORS

Note: For each Project Category and Project Type, the indicator outcome report will include the *total number of projects* and the *total GTF/PTF dollar value*, as well as aggregated quantitative measures and/or qualitative information for the proposed project indicator.

Ancillary benefits – qualitative information will be provided where possible and linked to provincial objectives (Ex: bike paths - healthy living)

CATEGORY	OUTCOME INDICATOR	EXPECTED OUTCOME	OUTCOME
&		(Intermediate/ Prov.	ТҮРЕ
Project Type	(Indicator & quantitative or qualitative	Outcome)	(Final/National
	measure)		Outcome)

CAPACITY BUILDING	total number and dollar value of capacity building projects		
integrated community sustainability plan	rationale - # of projects	n/a	n/a
use of new technology	rationale - # of projects	n/a	n/a
research	rationale - # of projects	n/a	n/a
other	to be developed as necessary		

COMMUNITY ENERGY SYSTEMS Subcategory: Conservation	total number and dollar value of energy conservation projects	improved energy use	cleaner air: reduced GHG
energy systems	decrease in energy consumed - in units appropriate to energy source ¹ ; ancillary benefit - qualitative	improved energy use; ancillary benefits	cleaner air; reduced GHG
retrofits of municipal buildings	decrease in energy consumed - in units appropriate to energy source ¹ ; ancillary – qualitative	improved energy use; ancillary benefits	cleaner air; reduced GHG

CATEGORY	OUTCOME INDICATOR	EXPECTED OUTCOME	OUTCOME
&		(Intermediate/Prov.	ТҮРЕ
Project Type	(Indicator & quantitative or qualitative	Outcome)	(Final/National
	measure)		Outcome)

COMMUNITY ENERGY SYSTEMS -

conservation	continued	

street lighting	decrease in energy consumed – in units	improved energy use;	cleaner air;
	appropriate to energy source ¹ ;	ancillary benefits	reduced GHG
	ancillary - qualitative		
other energy efficiency	decrease in energy consumed - in units appropriate to energy source ¹ ; ancillary – qualitative	improved energy use; ancillary benefits	cleaner air; reduced GHG
other	to be developed as necessary		

LOCAL ROADS AND BRIDGES Subcategory: roads	total number and dollar value of road projects	improved air quality	cleaner Air; reduced GHG
arterial roads - new	# of km	improved air quality	cleaner air; reduced GHG
arterial roads – improved	# of km	improved air quality	cleaner air; reduced GHG
local roads – new	# of km	improved air quality	cleaner air; reduced GHG
local roads – improved	# of km	improved air quality	cleaner air; reduced GHG
traffic flow	# of projects; rationale	improved air quality	cleaner air; reduced GHG
other local roads (eg. drainage, culverts)	# of projects; rationale	improved air quality; ancillary benefits	cleaner air; reduced GHG

CATEGORY	OUTCOME INDICATOR	EXPECTED OUTCOME	OUTCOME
&		(Intermediate/Prov.	ТҮРЕ
Project Type	(Indicator & quantitative or qualitative	Outcome)	(Final/National
	measure)		Outcome)

LOCAL ROADS & BRIDGES cont'd

	total number and dollar value of active transport		cleaner air;
Subcategory: active transportation	projects	improved air quality	reduced GHG
bike lanes	new or improved active transportation routes - #	improved air quality;	cleaner air;
	of km;	ancillary benefits	reduced GHG
	ancillary – qualitative		
			cleaner air;
Subcategory: bridges	total number and dollar value of bridge projects	improved air quality	cleaner air; reduced GHG
<i>Subcategory: bridges</i> bridges within local boundaries	<i>total number and dollar value of bridge projects</i> travel distance saved as a result of work - # of km	<i>improved air quality</i> improved air quality	<i>cleaner air;</i> <i>reduced GHG</i> cleaner air;
<i>Subcategory: bridges</i> bridges within local boundaries	<i>total number and dollar value of bridge projects</i> travel distance saved as a result of work - # of km	<i>improved air quality</i> improved air quality	<i>cleaner air;</i> <i>reduced GHG</i> cleaner air; reduced GHG

PUBLIC TRANSIT Subcategory: rolling stock	total # and \$ value of rolling stock projects	improved air quality	cleaner air; reduced GHG
bus, rail car, trolley	rationale - # of projects; additional capacity (# of	improved air quality;	cleaner air;
	units or # of people)	improved energy use	reduced GHG
transit buses – bus rolling stock – new	additional capacity - # of people	improved air quality;	cleaner air;
		improved energy use	reduced GHG
transit buses – bus rolling stock –	replaced capacity - # of people or # of units	improved air quality;	cleaner air;
replacement		improved energy use	reduced GHG

CATEGORY	OUTCOME INDICATOR	EXPECTED OUTCOME	OUTCOME
&		(Intermediate/Prov.	ТҮРЕ
Project Type	(Indicator & quantitative or qualitative	Outcome)	(Final/National
	measure)		Outcome)

PUBLIC TRANSIT cont'd

	total number and dollar value of ITS systems		cleaner air;
Subcategory: ITS	installed	improved air quality	reduced GHG
intelligent transportation systems	rationale - # of projects	improved air quality;	cleaner air;
(ITS) – transit operations		improved energy use	reduced GHG
ITS – traveler information	rationale - # of projects	improved air quality;	cleaner air;
		improved energy use	reduced GHG
	total number and dollar value of projects leading to		cleaner air;
Subcategory: capital assets	system improvements	improved air quality	reduced GHG
transit infrastructure & related	rationale & type of new or improved facilities - #	improved air quality;	cleaner air;
facilities	of projects	improved energy use	reduced GHG
transit priority capital investments –	rationale - # of projects	improved air quality;	cleaner air;
eg. transit queue jumpers		improved energy use	reduced GHG
other public transit	rationale – # of projects	improved air quality;	cleaner air;
-		improved energy use	reduced GHG
other	to be developed as necessary		

SOLID WASTE INFRASTRUCTURE			
Subcategory: landfill	increase in landfill capacity (tonnes) and rationale;		
expansion/creation (ancillary)	total number of projects and dollar value	ancillary	ancillary
waste disposal - landfills	increased capacity – tonnes/annum	ancillary benefit	ancillary benefit
waste disposal – landfill	qualitative information; # of projects	increased water	cleaner water
environmental improvements		conservation/protection	

CATEGORY	OUTCOME INDICATOR	EXPECTED OUTCOME	OUTCOME
&		(Intermediate/Prov.	ТҮРЕ
Project Type	(Indicator & quantitative or qualitative	Outcome)	(Final/National
	measure)		Outcome)

SOLID WASTE INFRASTRUCTURE –	continued		
	total number and dollar value of waste diversion	increased water	
Subcategory: waste diversion	projects	conservation/protection	cleaner water
waste diversion – collection depots	waste diverted/consolidated - tonnage/annum	increased water	Cleaner water
		conservation/protection	
waste diversion – recycling	increased recycling/waste diverted from landfill -	increased water	cleaner water
	tonnage/annum	conservation/protection	
other	to be developed as necessary		

Waste Water (WW)			
	total number and dollar value of storm water	increased water	
Subcategory: storm water management	projects	conservation/protection	cleaner water
sanitary and combined sewer systems	sewer pipe replaced or installed - # of meters	increased water	cleaner water
		conservation/protection	
separate storm water systems	storm water pipe replaced or installed - # of	increased water	cleaner water
	meters	conservation/protection	
	total number and dollar value of WW collection	increased water	
Subcategory: collection	projects	conservation/protection	cleaner water
WW collection systems and/or WW	increase in WW treatment capacity or WW	increased water	cleaner water
treatment facilities or systems (Ex:	collected – m ³ /day;	conservation/protection	
dealing with <i>capacity</i> , not treatment	# of new connections on municipal WW system		
standards; includes new or expanded			
lagoons)			
WW treatment systems (increase in	increase in volume of WW treated to a higher	increased water	cleaner water
standard of <i>treatment</i> , not increase in	standard – m³/day	conservation/protection	
capacity; includes lagoon upgrades)			
other	to be developed as necessary		

CATEGORY	OUTCOME INDICATOR	EXPECTED OUTCOME	OUTCOME
&		(Intermediate/Prov.	ТҮРЕ
Project Type	(Indicator & quantitative or qualitative	Outcome)	(Final/National
	measure)		Outcome)

WATER			
	Total number and dollar value of water	improved water	
Subcategory: supply/distribution	supply/distribution projects	quality/safety	cleaner water
extension of pipes to those previously	# of new connections to municipal water system; #	improved water	cleaner water
on other systems	of meters of new pipe	quality/safety	
replacement of pipes	# of meters of repaired or replaced pipe	improved water quality;	cleaner water
		safety	
extension of pipes to new users	# of new connections to municipal water system	improved water quality;	cleaner water
	(+ rationale); # of meters of new pipe	safety	
expansion of reservoir/dam (same	increase in water storage capacity - m ³ /day	improved water	cleaner water
treatment; increased capacity)	(+ rationale)	quality/safety	
		improved water	
Subcategory: treatment	Total # and \$ value of water treatment projects	quality/safety	cleaner water
drinking water treatment systems	increase in volume of water treated to a higher	improved water	cleaner water
(same capacity; higher treatment	standard – m³/day	quality/safety	
standard)			
	Total number and dollar value of demand mgmt	improved water	
Subcategory: demand management	projects	conservation/protection	cleaner water
metering systems	increase in water metering systems - # of	improved water	cleaner water
	households	conservation/protection	
other	to be developed as necessary		

Footnotes:

1. Decrease in energy consumed in units appropriate to energy source – eg. KWH. Ideally, the unit should then be converted to GHG emission reductions (in CO₂ equivalents).

MANITOBA - GTF/PTF PROJECT OUTCOMES REPORT, BY CATEGORY AND PROJECT TYPE (2009-2012)									
		ΤΟΤΑ	L # OF			QUANTITATIVE TOTAL GTF/PTF			TOTAL PROJECT
PROJECT CATEGORY	PROJECT TYPE	PRO	JECTS	OUTCOMES INDICATOR		MEASURE	SPENT	OTHER FUNDING	COSTS
						municipal			
sub-category		#	%	qualitative	quantitative	aggregate			
LOCAL ROADS AND BR	IDGES - (Final Outcome - Cleane	er Air, Red	luced GH	Gs)					
Roads	Local Roads	337			# kms	991.5	\$65,017,421	\$21,637,259	\$86,654,680
nouus	Arterial/Regional Roads	18			# kms	339.4	\$77,133,063	\$45,083,049	\$122,216,112
Roads, Sub-total		355			# kms	1,330.8	\$142,150,484	\$66,720,308	\$208,870,792
Bridaes	Bridges within local				# kms of travel distance				
Dirages	boundaries	32			saved	94.6	\$22,266,774	\$266,692	\$22,533,466
Active transportation	Walking Paths/sidewalks	30			# kms	12.6	\$2,262,697	\$2,198,261	\$4,460,958
LOCAL ROADS AND BR	IDGES, TOTAL	417	62.7%				\$166,679,955	\$69,185,261	\$235,865,217
PUBLIC TRANSIT - (Fin	al Outcome - Reduced GHGs)			·	·		· · · · ·		
Intelligent Transit									
Sustame (ITC)	transit operations	5			# of projects	5	\$1,136,137	\$2,491,678	\$3,627,816
Systems (115)	travel information	5			# of projects	5	\$2,596,383	\$0	\$2,596,383
Polling Stock	New Buses	4			#of units purchased	44	\$10,046,031	\$7,179,470	\$17,225,500
Konnig Stock	Handi-transit vehicles	6			#of units purchased	6	\$468,145	\$0	\$468,145
	Transit infrastructure and								
	related facilities, including								
Canital Assets	Rapid Transit	10			# of projects	10	\$9,046,981	\$130,220,011	\$139,266,992
cupitul Assets	Transit priority capital								
	investments - Transit queue-								
	jumpers	2			# of projects	2	\$368,748	\$2,936,655	\$3,305,404
PUBLIC TRANSIT, TOTA	<u>1/*</u>	32	4.8%				\$23,662,426.59	\$142,827,813.63	\$166,490,240.22
*The total \$23.7 millio	on includes \$10.9 million in Publ	ic Transit	Funds (P	TF) for 9 projects comple	ted in Cities of Winnipeg,	Brandon, Flin Flo	n and Thompson		
WATER - (Final Outcor	me - Cleaner Water)	1							
			[improved/replaced					
	nine replacement	40		waterlines/nines	# of meters	98 276	\$5 836 029	\$5 853 166	\$11 689 195
Supply and	pipe replacement	-10		waterinies/pipes	# of file (CF3	56,270	<i>\$3,630,023</i>	\$5,655,100	Ş11,005,155
Distribution				pipeplines and new					
		10		residential		1.207	42.0C2.042	¢0 540 574	
	extend pipe to new users	18		developments	# of new connections	1,397	\$2,063,042	\$3,510,571	\$5,573,613
Treatment	upgrade drinking water			storage/higher					
	treatment systems	34		treatment	m3/day	927.4	\$4,218,272	\$602,867	\$4,821,138
Demand				improved accuracy of	# of water meters				
Management	water metering systems	7	ļ	billings	installed	1,307	\$210,996	\$67,826	\$278,822
							4	4	4
WATER, TOTAL		99	14.9%				<i>\$12,328,339</i>	\$10,034,429	<i>\$22,362,769</i>

		ΤΟΤΑ	L # OF			QUANTITATIVE	TOTAL GTF/PTF		TOTAL PROJECT
PROJECT CATEGORY	PROJECT TYPE	PROJECTS		OUTCOMES INDICATOR		MEASURE SPENT		OTHER FUNDING	COSTS
						municipal			
sub-category		#	%	qualitative	quantitative	aggregate			
WASTE WATER - (Fina	l Outcome - Cleaner Water)		•	•					
•									
	Sanitary and combined sewer			less sewer spils; fewer	# meters of sewer pipes				
Storm Water	systems	5		emergency repairs	replaced/repaired	6,800	\$982,596	\$600,000	\$1,582,596
Management								· · ·	
-					# meters of sewer pipes				
	Separate storm water	10		less basement flooding	replaced/repaired	300	\$494,255	\$177,192	\$671,447
	Wastewater collection &			increased WW capacity;					
	treatment systems - expanded			fewer discharges;	# of connections on				
	capacity	28		cleaner discharges	municipal WW system	3.469	\$2.305.370	\$2.202.102	\$4.507.472
Collection				increase in volume of		-,	1 / = = = / = = =	. , . , .	1 / /
	Wastewater treatment			WW treated to a higher					
	systems - increased capacity/			standard/increased					
	standard of treatment	17		capacity	m3/day	93.386.3	\$3.831.977	\$3,463,417	\$7,295,395
WASTE WATER . TOTA	1	60	9.0%		-,,		\$7,614,198	\$6,442,711	\$14,056,909
	-						+-,,	<i>+ •, • • •, • =</i> -	+= ,== =,= ==
COMMUNITY ENERGY	SYSTEMS - (Final Outcome - Red	uced GH	Gs)						1
	Energy Systems	13		improved energy use	n/a		\$2,885,580	\$2,255,395	\$5,140,975
	Retrofits of municipal								
Conservation	buildings	9		improved energy use	n/a		\$847,987	\$1,340,851	\$2,188,839
	Street Lighting	3		improved energy use	n/a		\$155,803	\$0	\$155,803
COMMUNITY ENERGY	SYSTEMS, TOTAL	25	3.8%				\$3,889,370	\$3,596,246	\$7,485,616
SOLID WASTE INFRAST	TRUCTURE - (Final Outcome - Red	luced GH	Gs)	•	•	•			•
landfille	Waste disposal -			improved waste	# of projects, improved				
Lunujins	environmental improvements	9		disposal sites	waste disposal sites	9	\$651,459	\$0	\$651,459
Waste diversion	Collection depots	8		waste consolidation	tonnes/year	1,265.5	\$1,373,960	\$0	\$1,373,960
	Other diversion projects	4			# of projects	4	\$240,254	\$0	\$240,254
SOLID WASTE INFRAST	TRUCTURE, TOTAL	21	3.2%				\$2,265,674	\$0	\$2,265,674
CAPACITY BUILDING -	(Final Outcome - Cleaner Air, Cle	aner Wa	iter, Redu	ced GHGs)		1	1 1		1
	Building Partnerships and								
	Strategic Alliances	1		capacity building	n/a		\$143,681	Ş0	\$143,681
				better planning for					
	Integrated Community			future investments in					
	Sustainability Plan	2		infrastructure	n/a		\$96,812	\$0	\$96,812
	Research	1		better planning	n/a		\$81,601	\$0	\$81,601
	Use of New Technology	4		use of new technology	n/a		\$563,754	\$3,000	\$566,754
	Other Municipal Capacity	3		capacity building	n/a		\$254,973	\$17,000	\$271,973
CAPACITY BUILDING,	TOTAL	11	1.7%			Ļ	\$1,140,822	\$20,000	\$1,160,822
GRAND TOTAL		665	100.0%				\$217,580,785	\$232,106,462	\$449,687,247