December 22, 2015

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St., 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: EB-2015-0179 Community Expansion – Exhibit JT1.12 Attachment 1

Attached, please find a copy of Exhibit JT1.12 Attachment 1. Union is also providing a CD of this Attachment.

Yours truly,

[Original signed by]

Chris Ripley,
Manager, Regulatory Applications

Encl.

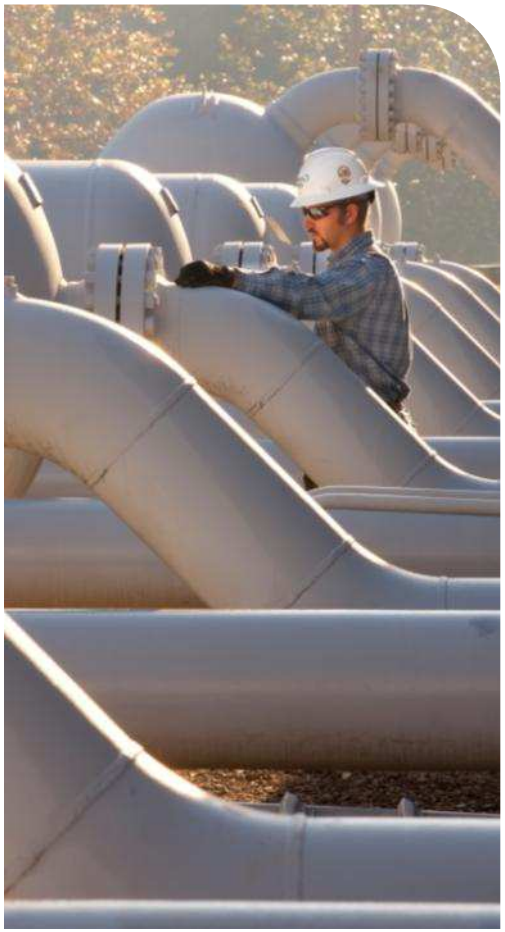
c.c.: EB-2015-0179 Intervenors
C. Keizer (Torys)

UNION GAS LIMITED

Undertaking Response
To Mr. Rubenstein

To provide the documents included in Energy Probe 1, Attachment (A).

Please see Attachment 1.

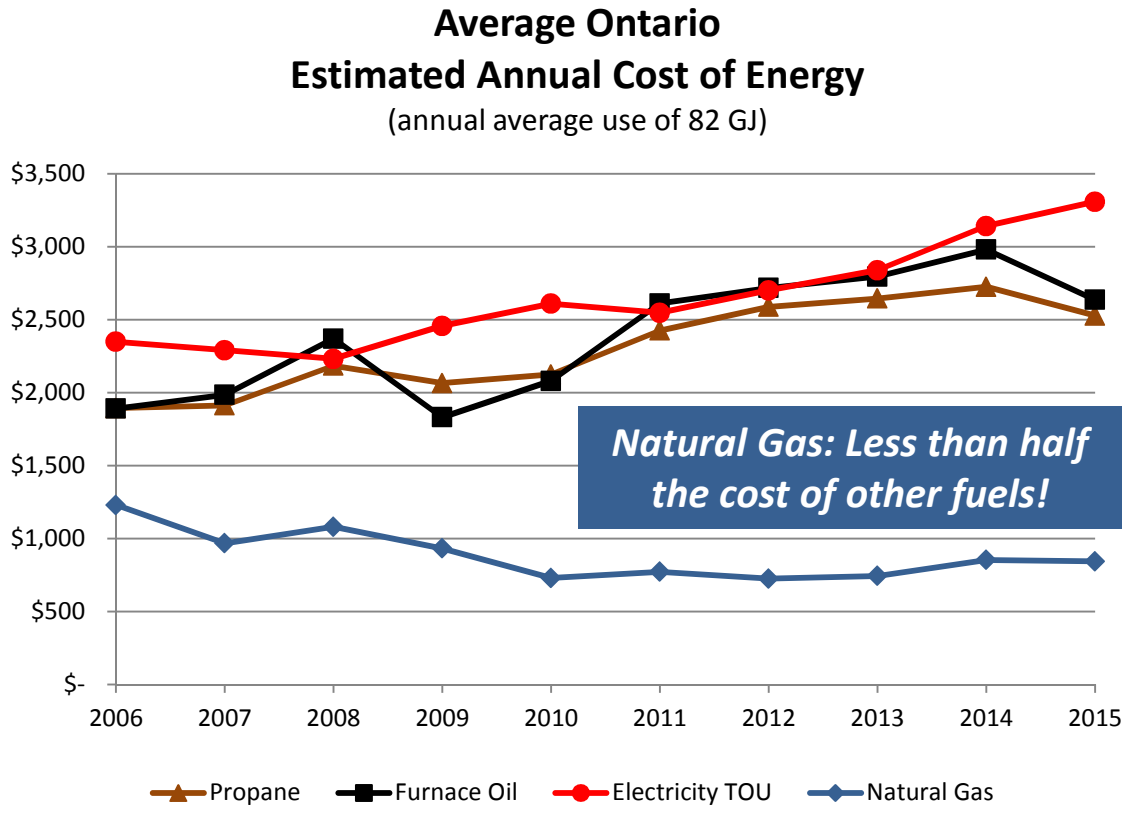


November 17, 2015

Natural Gas System Expansion to Rural and Northern Communities

Escalating Costs of Competing Energy Sources Drives Demand

- Escalation in energy prices for other fuels is creating unprecedented interest in conversion to natural gas
- Increased conversion customer additions 2011-2013
- Requests from a number of municipalities
- Scope Analysis: focus on connecting rural/ northern towns and villages



http://www.cleanandaffordable.ca/discovering-the-benefits-of-natural-gas-in-red-lake-ontario/

Chart Sources: Propane & Heating Oil: The Kent Group. Rates taken for London for the South and Thunder Bay for the North
Natural Gas: Union Gas Limited Rate Schedules

Rural/Northern Towns and Villages
Scale and Barriers

Potential Scale

- Natural Gas access potential for ~190 communities, 65,000 homes and businesses
- ~30 projects >500 homes/businesses; ~100 with >100 homes/businesses

Barriers

- Economic Feasibility
  - ~30 km average from existing gas system
- Regulatory Flexibility
  - Very few communities meet minimum economic feasibility standards set by OEB
  - Prohibitive up-front contributions necessary

Public Policy Direction

- December, 2013 Ontario Long Term Energy Plan commitment
  - *"The government will work with gas distributors and municipalities to pursue options to expand natural gas infrastructure to service more communities in rural and northern Ontario."*
- 2014 Provincial Minister's Mandate Letters
- April 2015 Ontario budget commitment
  - $200M in Natural Gas Access Loans and $30M in Natural Gas Economic Development Grants, targeted for 2017/18
- February 2015 OEB invitation to propose plans:
  - *"In an effort to facilitate enhanced access to natural gas for rural and remote communities and businesses, the Ontario Energy Board is inviting parties…. to propose one or more plans for natural gas expansion"*
  - *"…the Board is cognizant that the specific requirements of EBO 188 may require some flexibility…"*

Union's Proposal Filed with OEB July 2015

Key Parameters

- Maximize the number of communities that can receive gas service without the need for Provincial funding support
- Limit cost impacts for existing ratepayers to a maximum of $2/month ($24/year)

Principles Underlying Union's Proposal

- Each of the major beneficiaries of extended gas infrastructure contribute towards financial viability of community expansion projects:
  - Municipalities/First Nations
  - Conversion Customers
- Expansion Customer contributions should be commensurate with the savings achieved
- Moderate cross subsidization from existing customers is acceptable provided long term rate impacts are reasonable
- Utility partners should not be exposed to additional financial risk related to the incremental capital investment

Key Elements of Proposal

Community Expansion Projects

1. Expansion Customer Contributions: Volumetric "Temporary Expansion Surcharge "(TES) of $0.23/m^3, equivalent to $500/year for typical residential customer, for up to 10 years
2. Municipal Contributions: "Incremental Tax Equivalent" (ITE) for same period as TES. Commercial agreement for payment of equivalent value to property taxes generated by the projects
3. E.B.O. 188 Economic Threshold Exemptions
   - Project minimum PI decrease from 0.8 to 0.4, provided municipality agrees to ITE
   - Exemptions from inclusion in both Investment Portfolio and Rolling Project Portfolio; manage to a rate impact ceiling of $2/month for residential customers
4. Capital Pass Through to rates and related deferral accounts

Small Main Extension Projects

5. Volumetric "Temporary Connection Surcharge" (TCS)

Specific Projects Proposed

Community	Potential Customers	Gross Capital
Milverton	818	$4.9 M
Lambton Shores/ Kettle Point First Nation	496	$2.4 M
Prince Township (S.S. Marie)	375	$2.7M
Walpole Island First Nation*	83	$1.4 M
Moraviantown First Nation	70	$0.5 M

Potential Future Projects Enabled:

- 30 Projects to service 34 communities
- $150 million capital, with no need for Provincial funding support
- Natural Gas access to 20,000 homes and businesses

Further additional projects enabled through Ontario infrastructure funding

* Recent update: Received federal funding; project will proceed without Union's proposals

Ontario Infrastructure Funding is a Logical Extension of Union's Regulatory Proposals

MEDEI Mandate:

- Natural Gas Access Loan: *"…provide up to $200 million over two years to help communities partner with utilities to extend access to natural gas supplies"*
- Natural Gas Economic Development Grants: $30 million *"… to accelerate projects with clear economic development potential"*

Ontario funding can make additional projects feasible

Infrastructure consultations undertaken across the province

- LDC Observation: Audience driven; major focus on municipal infrastructure, very minor focus on natural gas extension
- Gas Distributors willing to play a key support role in natural gas funding process

An LDC Perspective: Program Intent

- Key Principles:
  - Individual expansion customers willing to financially support the effort
  - Municipalities have “skin in the game”
  - Leverage proposed regulatory flexibility
- Funding Applicability: Expansion to communities (towns/villages/ hamlets) vs other projects
  - Leverages regulatory flexibility proposals
  - Most bang for the buck due to higher consumer densities

An LDC Perspective: Program Intent (cont'd)

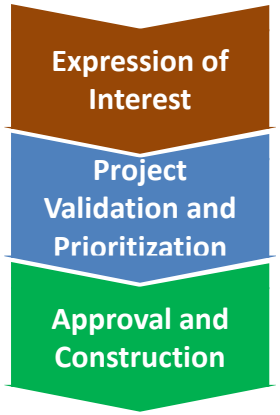
- Funding Use: Financially support "joint use facilities" as opposed to those used by individual customers
  - Caution about targeting funding to individual customers (equipment replacement or service line installation)
    - Approach could quickly deplete funding; Union and Enbridge routinely have ~50,000 customers attach each year without community expansion efforts, all of whom would be very happy to access funding for conversion
    - New customers who are close to mains are already willing to make the necessary individual investment to convert
    - May be incompatible with regulatory flexibility proposal
  - Greatest financial challenge is getting gas to the edge of town. Funding directed here will benefit the whole community as opposed to only those who attach in first year
  - Not intended for establishment of new utilities

An LDC Perspective: Criteria

- Eligibility conditions
  - Alignment with LDC's on types of projects (minimum 50 existing homes/businesses)
  - Any differences for Grants vs Loans?
- MEDEI's key goals a factor
  - most economic projects first?
  - most potential customers first?
  - other considerations (example local unemployment or local average income)?
  - Several could be merged (weighted)
- Define "Clear Economic Development Benefits"
  - Interest from new businesses, growth in existing businesses

An LDC Perspective: Process

- Key considerations:
  - Economic feasibility: Avoid implied commitments to serve that have low likelihood of becoming feasible
  - Lead times to construction
    - 3-4 months: Costing, environmental assessment, and market forecast survey
    - 3-6 months
      - » *OEB facilities applications required for some projects*
      - » *Union's program likely to require an abbreviated up-front OEB approval process for smaller projects as well*
    - 3-6 months: Construction period (limited to May through November each year)
- Potential process phases:
  1. Expression of Interest
  2. Validation and Prioritization
  3. Approval and Construction
- Target an application process (phase 1) 2016 Q3 latest.

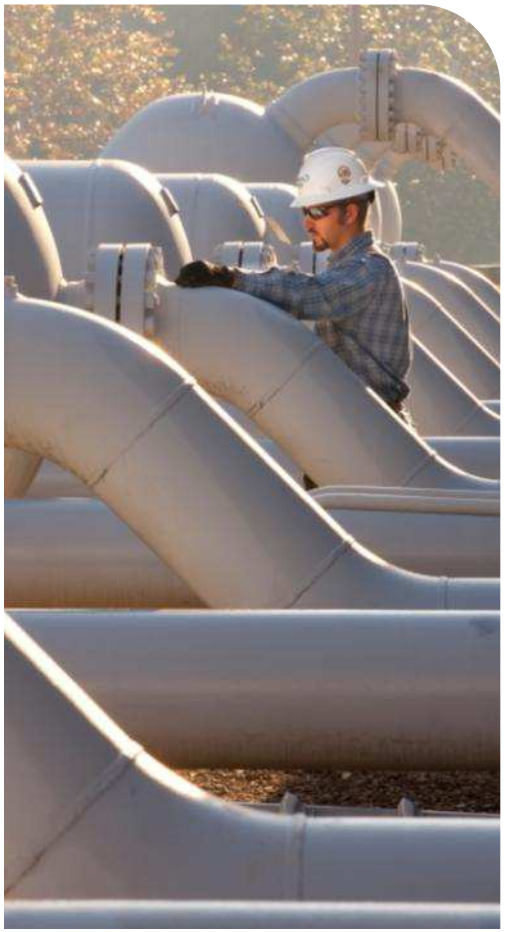


Next Steps

- OEB Proceeding
  - Initial steps defined
  - Expect hearing in mid winter, earliest decision end of Q1, 2016
- Provincial Funding Criteria and Process
  - Timeframes for development
  - How can Union help in defining criteria and process?

uniongas

A Spectra Energy Company



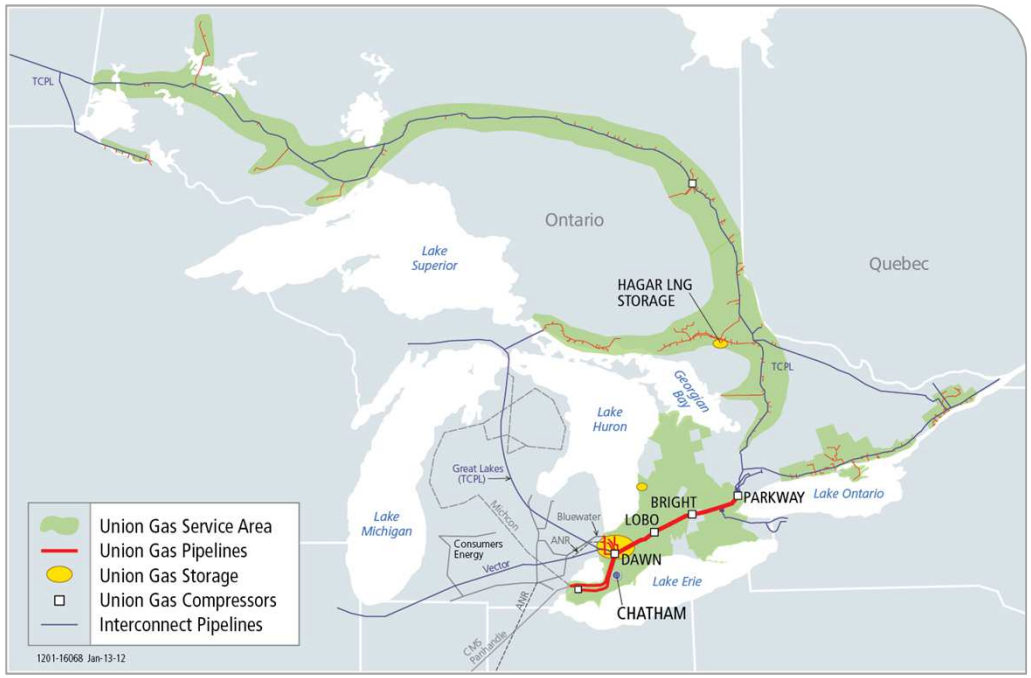
May 12, 2015

Rural/Northern Community Expansion

OEB Filing Status Update

Union Gas

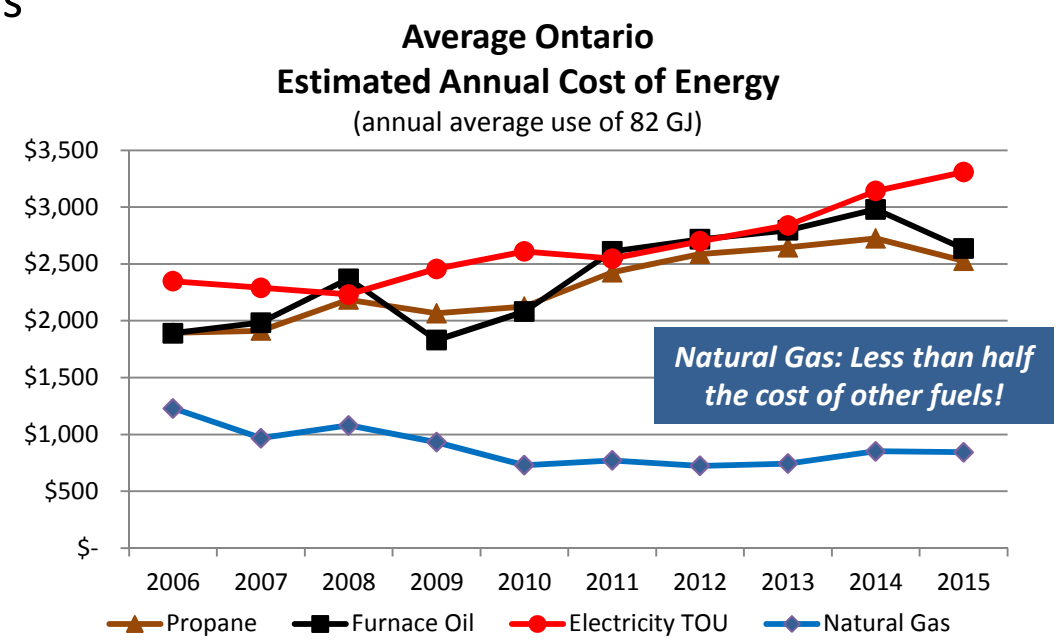
- Major Canadian natural gas storage, transmission and distribution company
- Over 100 years of experience and safe service to customers
- Dawn Storage facility – largest underground storage facility in Canada
- Assets of $6.4 billion, ~1.4 million customers, ~2,400 employees
- One of Canada's Top 100 Employers for 2011-2014
- Parent company Spectra Energy spans 7 provinces and 30 states – a NA energy infrastructure leader



Customers	1.4 million
2013 Pipeline Throughput	1.402 Tcf
Distribution Pipe	63,540 km / 39,480 mi
Storage Capacity	156 Bcf
Transmission Pipe	4,785 km / 2,980 mi

Background

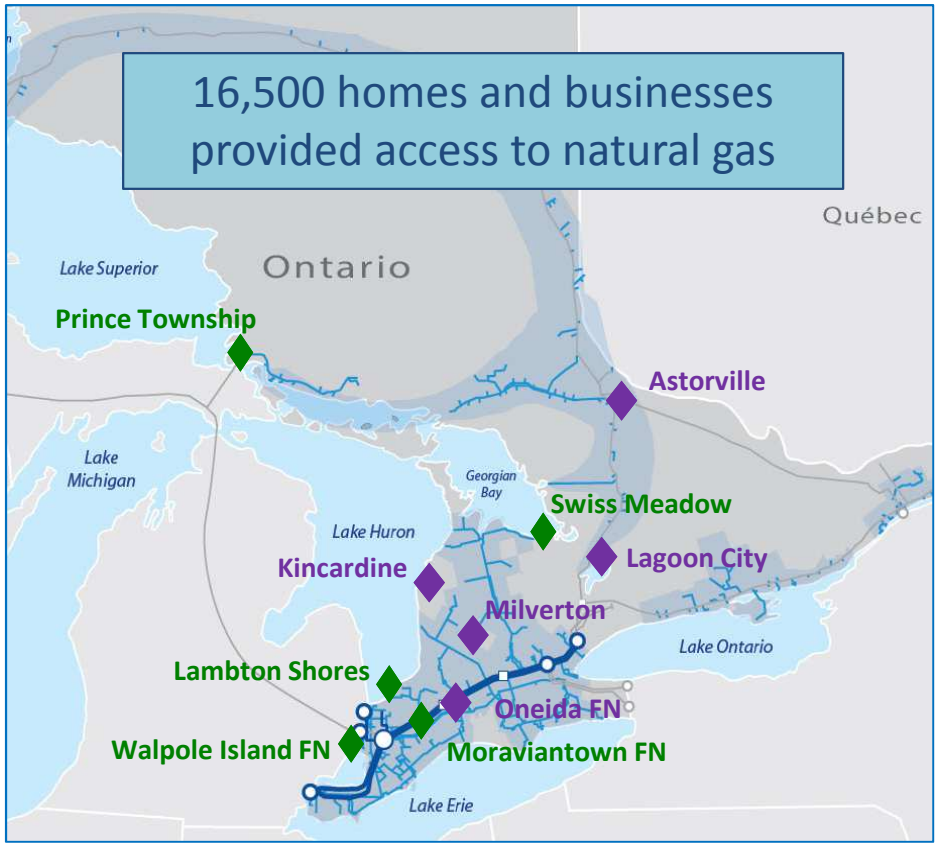
- Escalation in energy prices for other fuels is creating unprecedented interest in conversion to natural gas
- Requests and detailed discussion with a number of municipalities
- December, 2013 Provincial Long term Energy Plan commitment
- 2014 Minister's Mandate Letters



- February 2015 OEB Invitation to propose plans:
  - *"In an effort to facilitate enhanced access to natural gas for rural and remote communities and businesses, the Ontario Energy Board is inviting parties…. to propose one or more plans for natural gas expansion"*

Chart Sources:
Propane & Heating Oil: The Kent Group. Rates taken for London for the South and Thunder Bay for the North
Natural Gas: Union Gas Limited Rate Schedules
Electricity: MEU time of use rates for sample of southern and northern utilities

Union Gas Top 10* Previously Identified Potential Projects



- Project enabled through regulatory flexibility and municipal tax rebates
- Project also requires Provincial grants/loans or other funding

- Lambton Shores and Kettle Point First Nation
- Prince Township (S.S. Marie)
- Swiss Meadow
- Walpole Island First Nation
- Moraviantown First Nation
- Lagoon City (Orillia)
- Milverton
- Oneida First Nation
- Astorville
- Kincardine/Tiverton/Paisley/Chesley

- *Based on community size and economic viability

Current Status

- Union expects to file proposals in early June
- Filing will include:
  - Description of potential scope of a broader expansion program supported by announced provincial grants and loans
    - Sets context for consideration of policy proposals
  - Policy Proposals for both filed projects and broader expansion program
    - Intent to avoid need for future approvals of projects that would typically not require facilities approvals from the Board
  - Specific project proposals for several communities
    - Section 90 (OEB Act) facilities approvals for up to 3 projects
    - Potentially 3 projects that would not normally require facilities approvals

Specific Projects Under Consideration

Community	Potential Customers	Gross Capital	Filing Status
Milverton	818	$4.9 M	Confirmed
Lambton Shores/ Kettle Point First Nation	496	$2.4 M	Confirmed
Prince Township (S.S. Marie)	375	$2.7M	Possible
Walpole Island First Nation	70	$1.3 M	Possible
Moraviantown First Nation	45	~$0.6 M	Doubtful
Hornby	45	~$0.3 M	Doubtful
Swiss Meadow (Collingwood)	108	$0.9 M	Ruled Out

All data to be confirmed

Principles Underlying Expected Policy Proposals

- Each of the major beneficiaries of extended gas infrastructure contribute towards the cost:
  - Province
  - Municipalities/First Nations
  - Conversion Customers
  - Gas Utility
- Public policy supporting expansion to rural and remote communities provides a reason for reconsideration of current OEB guidelines intended to prevent any long term cross subsidization from existing customers
  - Degree of accepted cross subsidization to be limited to reasonable annual cost (rate) impacts
- Utility partners should not be exposed to additional financial risk related to the incremental capital investment

Regulatory Flexibility Proposals

1. Capital Pass Through to Rates (Y Factor Eligibility)
   - For all projects that have approved reduced PI's
   - Protects shareholder from impacts of low initial period project PI's during IR term
   - Few individual projects with net capital >$50M (Y factor), however, portfolio of projects highly likely to exceed this
2. Project Economic Feasibility: Project Minimum PI of 0.6, Investment Portfolio Minimum PI of 0.9
   - Combination allows for incremental capital spending (up to $60M/year at Union) within envelope; grant availability may limit this to some extent
   - Portfolio PI reduction allows for minimal level of capital investment cross subsidized by existing ratepayers (estimated rate impact $10/year/customer)
   - *Have yet to confirm adequate capital capacity will be made available with Investment Portfolio change; other options still under consideration*

Regulatory Flexibility Proposals

3. Expansion Community Volumetric Rate Rider ("Temporary Expansion Surcharge") approval: Rate and Accounting Treatment
   - Same rate for all projects; time period varies by project based on economics, mandatory for all customers attaching to a community expansion project
   - Proposed at 23 cents/m3 for up to 10 years for general service customers
   - Costs $500/residential customer per year, or max 1/3 of annual energy savings. Remaining energy savings (>$1,000/year) pay for average equipment conversion in 3.7 years
   - Becomes a major contributor to economic shortfalls.
   - *Considering treatment as a "pass-through" revenue as opposed to aid to construction*
4. Infill Rate Rider
   - Option for customer conversions in non- project areas (also have option of up-front Aid)
   - Same as above but not passed through to rates
5. Municipal Tax Equivalent Contribution Accounting Treatment
   - Propose same accounting treatment as Expansion Surcharge
   - Equivalent to incremental municipal taxes each year for minimum period equal to rate rider
   - Puts municipal skin in the game

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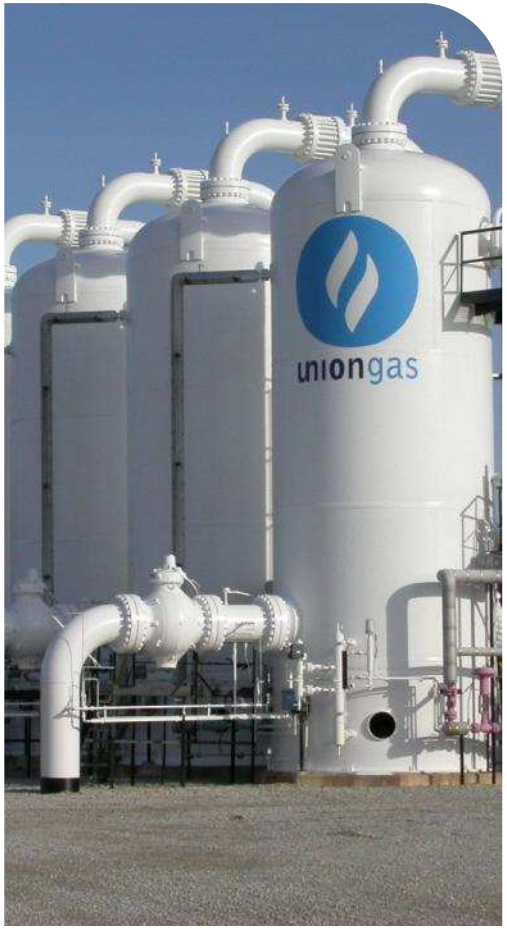


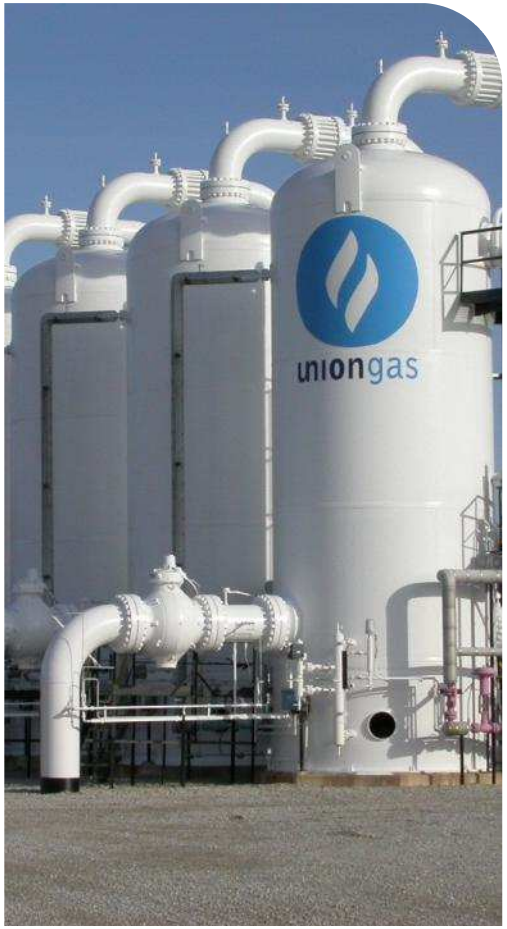
2015 Annual Stakeholder Meeting

April 8, 2015

Purpose of Meeting

In Section 12.2 of the EB-2013-0202 Settlement Agreement, parties agreed to an annual funded stakeholder meeting where Union would:

- Review previous year's financial results (i.e. earnings, capital spending) and other key operating parameters (i.e. SQI performance) for the most recently completed year;
- Present and explain market conditions and expected changes/trends, and the impact these may have on the regulated operations
- Present and review the gas supply plan for the coming year;
- Present new capital projects that meet the capital pass-through criteria as defined in Section 6.6; and,
- Present results of any customer surveys undertaken during the year.



Community Expansion

Jeff Okrucky

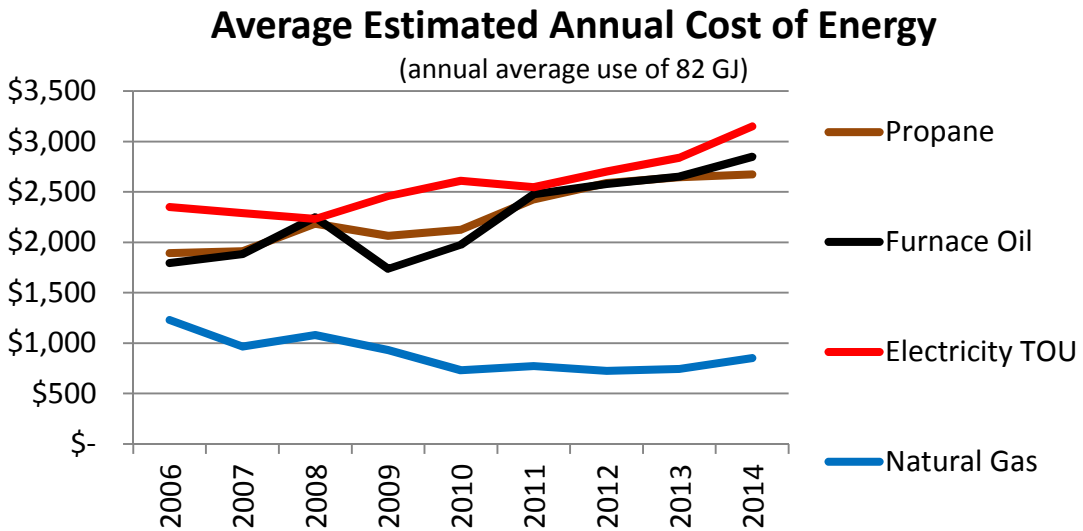
Director, Distribution Marketing

Community Expansion Agenda

- Background
- Benefits
- Scale and Barriers
- Current Status
- Next Steps

Background

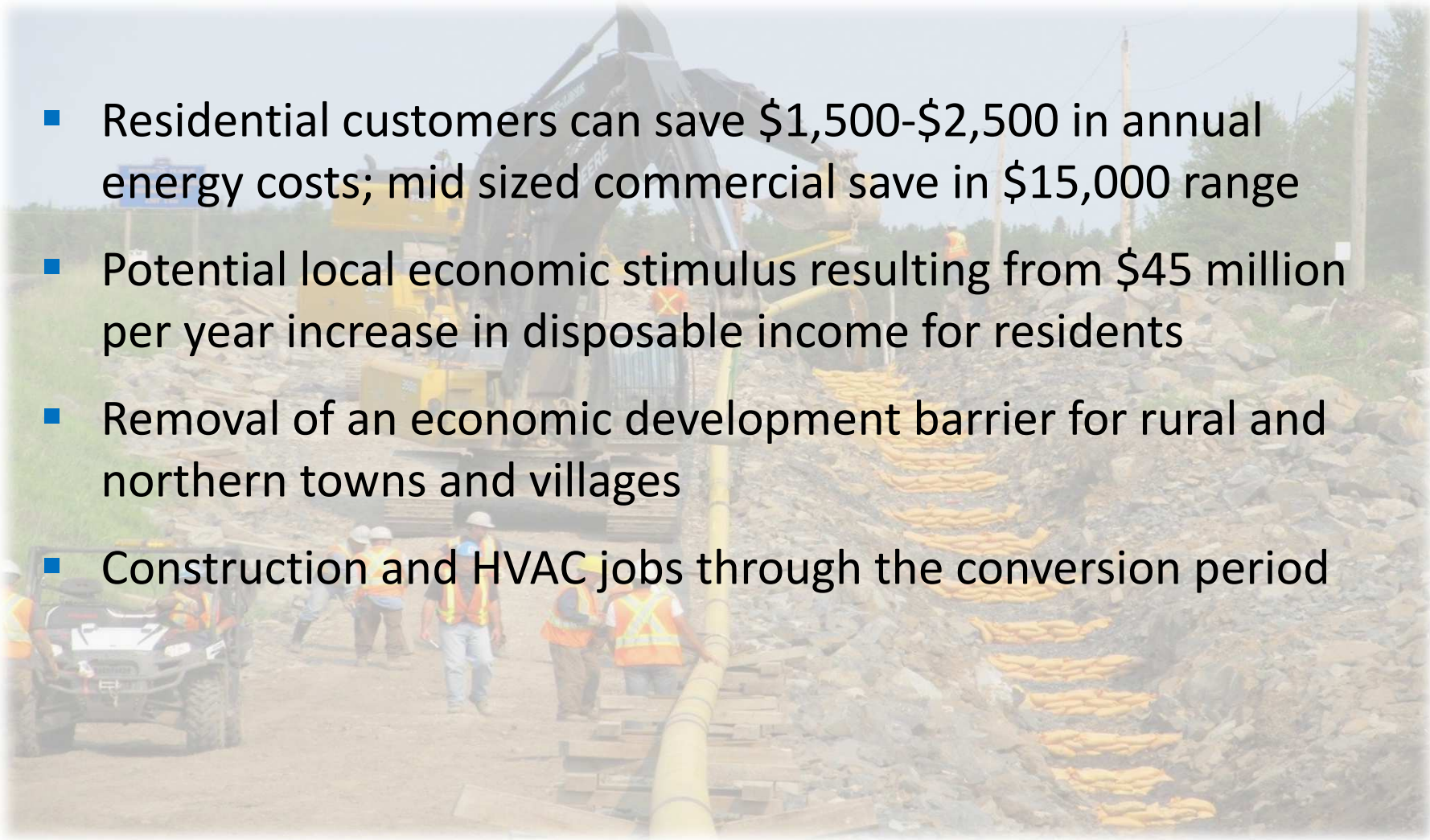
- Escalation in energy prices for other fuels has created unprecedented interest in conversion to natural gas
- Detailed discussion with a number of municipalities
- Ongoing dialogue with various ministries, OFA, and municipal associations



- December, 2013, Provincial Long Term Energy Plan commitment
- Union undertook tabletop identification and costing exercise in Q2 2014 to better understand scale

Chart Sources: Propane & Heating Oil: The Kent Group. Rates taken for London for the South and Thunder Bay for the North
Natural Gas: Union Gas Limited Rate Schedules
Electricity: MEU time of use rates for sample of southern and northern utilities

Expansion Community Benefits



- Residential customers can save $1,500-$2,500 in annual energy costs; mid sized commercial save in $15,000 range
- Potential local economic stimulus resulting from $45 million per year increase in disposable income for residents
- Removal of an economic development barrier for rural and northern towns and villages
- Construction and HVAC jobs through the conversion period

Scale and Barriers

Potential Scale

- Over 140 potential projects identified:
  - ~20 community projects with >500 properties
  - ~40 with >100 properties
- Natural Gas access potential for up to 45,000 customers serving a population of 120,000
- Gross Capital $1.5B to serve all; broad range in feasibility gap across potential projects

Barriers

- Economic Feasibility: Project average ~20 km average from existing gas system; generally larger communities are further away
- EBO188 Guideline Flexibility: Very few communities with P.I. > 0.8; Prohibitive up-front contributions necessary to get to minimum economic feasibility requirements

Current Status

- Provincial commitment to municipal support via:
  - $200M in interest free Natural Gas Access Loans
  - $30M in Natural Gas Economic Development Grants
- Continued dialogue with Ministries on how Provincial commitment might be further leveraged through regulatory (EBO 188) flexibility
- February 18 Board invitation to propose plans for natural gas expansions, including requests for flexibility or exemptions
- Identification of communities that could be serviced without Provincial funding if regulatory flexibility proposals are approved by the Board

Proposed Regulatory Flexibility

- Capital Pass-Through treatment in rate setting
- Variance from current EBO 188 guidelines
  - Relaxation in minimum PI thresholds at Project, Investment Portfolio and Rolling Project Portfolio levels
- Flexibility in means of collecting, and treatment of, conversion customer and/or municipal contributions
  - Temporary volumetric rate rider for customers in new expansion communities
    - Consistent rate for all projects
    - Time period varies by community
  - Municipal agreement to forego incremental tax revenues for similar time periods

Next Steps

- Detailed costing for communities that could be served through regulatory flexibility alone
- OEB section 36/section 90 filing for first phase (initial group of communities)
  - Expect fewer than 10 projects
  - Expect to file in Q2 2015
  - Intend to set stage for broader community expansion effort when Provincial funding is available
- Support development of natural gas access loans and grants for second phase of expansions
  - Offer support for Ministry development of eligibility criteria and related process
  - Encourage specific commitment to natural gas access loans and grants in Provincial budget

Union Gas Potential Commuity Expansion Project List

March 25, 2015

Community Name	Communities	Population	Maximum Customer Potential	Distance from Source (km)	Total Capital Costs	Natural PI (without AID)	Minimum Economic Target Threshold modelled at PI=0.6 where beneficial					
							AID (PI 0.6 threshold where beneficial)	Customer Aid (Expsnaion Surcharge proposal)	Municipal Aid (Property tax rebate proposal)	Residual Aid Req'd	Residual Aid Potential Customer	Cumulative Residual Aid
Lambton Shores, Kettle Point First Nation	2	4,147	1,620	6	$ 4,634,703	0.47	$ 1,275,115	$ 1,227,315	$ 47,800	$ -	$ -	$ -
Prince Township, Sault Ste Marie	1	1,193	466	-	$ 1,588,885	0.65	$ -	$ -	$ -	$ -	$ -	$ -
Swiss Meadow	1	276	108	1	$ 306,695	0.48	$ 77,436	$ 77,436	$ -	$ -	$ -	$ -
Walpole Island First Nation- main commercial area	1	179	70	5	$ 648,694	0.32	$ 396,036	$ 396,036	$ -	$ -	$ -	$ -
Hornby	1	115	45	1	$ 116,456	0.51	$ 21,900	$ 21,900	$ -	$ -	$ -	$ -
Moraviantown First Nation- main commercial area	1	115	45	5	$ 254,984	0.53	$ 38,788	$ 38,788	$ -	$ -	$ -	$ -
Lagoon City (Orillia)	1	6,543	2,556	19	$ 12,341,512	0.46	$ 3,740,195	$ 1,936,094	$ 788,074	$ 1,016,027	$ 398	$ 1,016,027
Milverton, Wartburg, Rostock	3	2,770	1,082	21	$ 4,846,779	0.34	$ 2,630,958	$ 1,609,218	$ 309,494	$ 712,247	$ 658	$ 1,728,274
Hidden Valley/Huntsville	1	256	100	-	$ 561,024	0.41	$ 229,915	$ 77,444	$ 35,824	$ 116,647	$ 1,166	$ 1,844,921
Santa's Village/Beaumont Dr, Bracebridge	1	340	133	6	$ 748,253	0.40	$ 329,052	$ 101,014	$ 47,780	$ 180,258	$ 1,355	$ 2,025,179
Oneida First Nation	1	1,193	466	5	$ 1,912,435	0.33	$ 1,107,985	$ 353,548	$ 122,120	$ 632,318	$ 1,357	$ 2,657,497
Auburn	1	276	108	8	$ 458,061	0.33	$ 272,057	$ 82,494	$ 29,250	$ 160,313	$ 1,484	$ 2,817,810
Cedar Springs	1	448	175	1	$ 779,282	0.31	$ 494,227	$ 133,001	$ 49,761	$ 311,464	$ 1,780	$ 3,129,274
Northshore Rd / Peninsula Rd North Bay	1	852	333		$ 2,035,632	0.36	$ 1,033,168	$ 252,534	$ 129,986	$ 650,648	$ 1,954	$ 3,779,922
Canal, Gravenhurst	1	425	166	2	$ 1,020,482	0.36	$ 532,531	$ 124,583	$ 65,163	$ 342,784	$ 2,065	$ 4,122,706
Brenman Lin, Servern Twp (Gravenhurst)	1	84	33	2	$ 212,229	0.32	$ 128,904	$ 23,570	$ 13,552	$ 91,782	$ 2,781	$ 4,214,488
Astorville	1	1,196	467	5	$ 3,228,885	0.32	$ 1,926,642	$ 353,548	$ 206,182	$ 1,366,912	$ 2,927	$ 5,581,400
Munsee Delaware First Nation	1	108	42	-	$ 234,192	0.25	$ 178,590	$ 31,988	$ 14,954	$ 131,648	$ 3,134	$ 5,713,048
Sheffield	1	307	120	3	$ 677,798	0.24	$ 523,133	$ 90,912	$ 43,281	$ 388,940	$ 3,241	$ 6,101,988
Chippewa of the Thames First Nation- phase 3 & 4	1	282	110	-	$ 627,108	0.25	$ 481,864	$ 84,178	$ 40,044	$ 357,642	$ 3,251	$ 6,459,629
Turkey Point	1	1,385	541	12	$ 3,217,026	0.24	$ 2,586,710	$ 553,836	$ 205,425	$ 1,827,449	$ 3,378	$ 8,287,078
Nipissing First Nation / Jocko Point	1	1,196	467	-	$ 3,404,385	0.31	$ 2,155,816	$ 353,548	$ 217,389	$ 1,584,880	$ 3,394	$ 9,871,958
Rockton	1	320	125	4	$ 768,647	0.23	$ 620,456	$ 95,963	$ 49,082	$ 475,411	$ 3,803	$ 10,347,369
Chippewas of the Saugeen	1	307	120	5	$ 760,693	0.21	$ 674,036	$ 90,912	$ 48,574	$ 534,549	$ 4,455	$ 10,881,918
Belwood	1	1,966	768	17	$ 5,034,002	0.21	$ 4,342,652	$ 582,512	$ 321,449	$ 3,438,691	$ 4,477	$ 14,320,609
Washago	1	1,037	405	6	$ 3,603,518	0.25	$ 2,702,826	$ 306,408	$ 230,105	$ 2,166,314	$ 5,349	$ 16,486,923
Village of Warwick	1	384	150	13	$ 1,355,818	0.18	$ 1,240,380	$ 327,655	$ 86,576	$ 826,148	$ 5,508	$ 17,313,071
Kincardine. Tiverton, Paisley, Chesley	4	24,781	9,680	87	$ 99,276,506	0.21	$ 97,857,530	$ 36,545,175	$ 6,339,352	$ 54,973,002	$ 5,679	$ 72,286,074
Boblo Island	1	768	300	1	$ 2,315,192	0.18	$ 2,096,356	$ 228,964	$ 147,838	$ 1,719,554	$ 5,732	$ 74,005,628
E Floral (T Bay area)	1	256	100	2	$ 942,170	0.25	$ 719,317	$ 77,444	$ 60,163	$ 581,710	$ 5,817	$ 74,587,338
Latchford, Tri Town	1	512	200	6	$ 2,035,179	0.22	$ 1,657,778	$ 151,520	$ 129,957	$ 1,376,300	$ 6,882	$ 75,963,638
Wroxieter/Gorrie/Fordwich	3	2,074	810	26	$ 7,006,549	0.16	$ 6,800,461	$ 612,816	$ 447,407	$ 5,740,238	$ 7,087	$ 81,703,877
Haldimand Shores	1	384	150	6	$ 1,566,656	0.22	$ 1,289,913	$ 114,482	$ 100,040	$ 1,075,391	$ 7,169	$ 82,779,268
Mohawks of the Bay of Quinte (Tyendinaga FN)	1	241	94	5	$ 1,066,009	0.20	$ 925,555	$ 70,710	$ 68,071	$ 786,775	$ 8,370	$ 83,566,043
Sioux Narrows / Nester Falls	2	2,673	1,044		$ 12,272,750	0.19	$ 10,793,168	$ 791,273	$ 783,683	$ 9,218,212	$ 8,830	$ 92,784,255
Garden Village (Promenade-de-lac)	1	340	133	-	$ 1,568,253	0.20	$ 1,375,712	$ 101,014	$ 100,142	$ 1,174,557	$ 8,831	$ 93,958,812
Neustadt	1	535	209	9	$ 2,190,535	0.14	$ 2,239,547	$ 158,255	$ 139,878	$ 1,941,415	$ 9,289	$ 95,900,226
Little Longlac	1	36	14	1	$ 217,690	0.18	$ 200,973	$ 11,785	$ 13,901	$ 175,287	$ 12,521	$ 96,075,514
Moose Creek	1	817	319	12	$ 4,766,127	0.16	$ 4,604,140	$ 240,749	$ 304,343	$ 4,059,047	$ 12,724	$ 100,134,561
Emsdale Muskoka	1	84	33	-	$ 487,229	0.15	$ 480,405	$ 23,570	$ 31,112	$ 425,723	$ 12,901	$ 100,560,284
Long Lake Phase 3, Sudbury	1	256	100	-	$ 1,569,524	0.15	$ 1,517,355	$ 77,444	$ 100,223	$ 1,339,688	$ 13,397	$ 101,899,973
Gores Landing	1	612	239	9	$ 3,752,817	0.15	$ 3,670,500	$ 181,824	$ 239,638	$ 3,249,037	$ 13,594	$ 105,149,010

Union Gas Potential Commuity Expansion Project List

March 25, 2015

Community Name	Communities	Population	Maximum Customer Potential	Distance from Source (km)	Total Capital Costs	Natural PI (without AID)	Minimum Economic Target Threshold modelled at PI=0.6 where beneficial					
							AID (PI 0.6 threshold where beneficial)	Customer Aid (Expsnaion Surcharge proposal)	Municipal Aid (Property tax rebate proposal)	Residual Aid Req'd	Residual Aid Potential Customer	Cumulative Residual Aid
Consecon- Ameliasburgh, Rossmore	3	4,224	1,650	33	$ 26,099,186	0.15	$ 25,485,195	$ 1,370,063	$ 1,666,577	$ 22,448,555	$ 13,605	$ 127,597,565
Keast and South Bay Rd, Sudbury	1	256	100	-	$ 1,656,024	0.15	$ 1,627,899	$ 77,444	$ 105,746	$ 1,444,709	$ 14,447	$ 129,042,274
Wabauskang First Nation	1	413	161	-	$ 2,708,982	0.14	$ 2,710,404	$ 121,216	$ 172,983	$ 2,416,204	$ 14,970	$ 131,458,478
Cherry Valley	1	412	161	7	$ 2,715,686	0.14	$ 2,714,155	$ 121,216	$ 173,412	$ 2,419,527	$ 15,028	$ 133,878,006
Spencerville	1	812	317	13	$ 5,495,234	0.14	$ 5,512,853	$ 239,066	$ 350,901	$ 4,922,886	$ 15,530	$ 138,800,892
St Charles, Sudbury	1	1,093	427	11	$ 7,423,227	0.14	$ 7,438,062	$ 323,244	$ 474,014	$ 6,640,804	$ 15,552	$ 145,441,696
Alderville, Roseneath (Incl Alderville FN)	2	678	265	13	$ 5,175,072	0.12	$ 5,273,022	$ 200,344	$ 330,457	$ 4,742,221	$ 17,895	$ 150,183,918
Augusta Township	1	243	95	5	$ 1,868,897	0.12	$ 1,910,751	$ 70,710	$ 119,339	$ 1,720,702	$ 18,113	$ 151,904,620
Nobel (Parry Sound)	1	566	221	4	$ 5,207,088	0.11	$ 5,411,918	$ 168,356	$ 332,501	$ 4,911,061	$ 22,222	$ 156,815,681
Remi Lake area - north of Moonbeam	1	1,137	444	-	$ 10,807,500	0.10	$ 11,286,242	$ 336,712	$ 690,118	$ 10,259,412	$ 23,107	$ 167,075,092
Chukuni Subdivision (Red Lake area)	1	248	97	0	$ 2,381,060	0.10	$ 2,494,197	$ 72,393	$ 152,044	$ 2,269,760	$ 23,400	$ 169,344,852
Sydenham, Harrowsmith, Verona	3	2,860	1,117	28	$ 30,485,181	0.09	$ 32,188,556	$ 845,147	$ 1,946,647	$ 29,396,762	$ 26,318	$ 198,741,614
Gillies (outside Thunder Bay)	1	192	75	-	$ 2,037,810	0.09	$ 2,156,305	$ 55,557	$ 130,125	$ 1,970,622	$ 26,275	$ 200,712,236
Redbridge	1	256	100	6	$ 2,771,024	0.09	$ 2,918,767	$ 77,444	$ 176,945	$ 2,664,378	$ 26,644	$ 203,376,615
Wahnapitae First Nation	1	333	130	17	$ 7,438,873	0.16	$ 7,202,942	$ 3,036,684	$ 475,013	$ 3,691,245	$ 28,394	$ 207,067,860
Ripley,Lucknow	2	2,294	896	31	$ 22,907,994	0.06	$ 27,254,939	$ 678,475	$ 1,462,802	$ 25,113,663	$ 28,029	$ 232,181,522
Inverary	1	512	200	8	$ 6,183,788	0.09	$ 6,557,827	$ 211,951	$ 394,869	$ 5,951,007	$ 29,755	$ 238,132,529
Thomasburg	1	358	140	10	$ 4,282,873	0.08	$ 4,566,251	$ 106,064	$ 273,485	$ 4,186,702	$ 29,905	$ 242,319,231
Loon Lake (outside of Thunder Bay)	1	448	175	-	$ 5,647,480	0.08	$ 6,044,283	$ 133,001	$ 360,623	$ 5,550,659	$ 31,718	$ 247,869,890
Webbwood and McKerrow + Massey	3	1,341	524	35	$ 18,100,491	0.08	$ 19,447,583	$ 397,320	$ 1,155,816	$ 17,894,447	$ 34,150	$ 265,764,337
Thunder Lake & Meadows (Dryden area)	1	527	206	-	$ 7,838,790	0.07	$ 8,488,862	$ 154,888	$ 500,550	$ 7,833,425	$ 38,026	$ 273,597,761
Centenial Cres, North Bay	1	256	100	4	$ 3,858,024	0.07	$ 4,166,838	$ 77,444	$ 246,356	$ 3,843,038	$ 38,430	$ 277,440,799
Charlton NW of Englehart	1	161	63	7	$ 2,474,746	0.07	$ 2,676,751	$ 48,823	$ 158,026	$ 2,469,902	$ 39,205	$ 279,910,701
Goulais River and Goulais Bay	2	852	333	22	$ 13,095,632	0.07	$ 14,189,792	$ 252,534	$ 836,228	$ 13,101,030	$ 39,342	$ 293,011,731
Westport	1	3,041	1,188	54	$ 48,523,183	0.07	$ 52,614,169	$ 1,078,629	$ 3,098,473	$ 48,437,067	$ 40,772	$ 341,448,797
Bancroft	1	4,854	1,896	70	$ 77,682,278	0.07	$ 84,381,078	$ 1,496,507	$ 4,960,442	$ 77,924,129	$ 41,099	$ 419,372,926
King Kirkland + Larder Lake + Virginiatown + Kearns	4	2,595	1,014	38	$ 42,051,838	0.07	$ 45,723,774	$ 784,289	$ 2,685,242	$ 42,254,244	$ 41,687	$ 461,627,170
Sioux Lookout + Hudson + Lac Seul FN + Fisherman's Head	4	7,205	2,814	132	$ 116,897,803	0.07	$ 127,116,866	$ 2,147,972	$ 7,464,569	$ 117,504,324	$ 41,751	$ 579,131,494
Roblin, Marbank	2	522	204	19	$ 8,484,367	0.07	$ 9,227,277	$ 154,888	$ 541,774	$ 8,530,616	$ 41,817	$ 587,662,110
Red Rock First Nation - Lake Helen	1	256	100	3	$ 4,433,390	0.06	$ 4,829,967	$ 77,444	$ 283,096	$ 4,469,427	$ 44,694	$ 592,131,537
Algoma Mills + Spragge + Serpent River + Spanish	4	1,057	413	53	$ 31,062,947	0.12	$ 31,953,943	$ 10,598,931	$ 1,983,540	$ 19,371,472	$ 46,904	$ 611,503,009
Back Rd- Timmins area	1	323	126	9	$ 5,891,440	0.06	$ 6,443,733	$ 95,963	$ 376,201	$ 5,971,569	$ 47,393	$ 617,474,578
Rosseau (Parry Sound)	1	256	100	20	$ 5,706,024	0.06	$ 6,248,905	$ 960,333	$ 364,361	$ 4,924,210	$ 49,242	$ 622,398,788
Lac St-Therese (north of Hearst)	1	305	119	12	$ 6,082,852	0.06	$ 6,678,577	$ 104,130	$ 388,424	$ 6,186,023	$ 51,983	$ 628,584,812
Hagar	1	179	70	1	$ 3,628,506	0.05	$ 3,992,132	$ 52,190	$ 231,700	$ 3,708,241	$ 52,975	$ 632,293,053
Field	1	256	100	15	$ 5,236,024	0.06	$ 5,750,000	$ 77,444	$ 334,349	$ 5,338,207	$ 53,382	$ 637,631,260
Slate River (outside Thunder Bay)	1	768	300	-	$ 15,751,420	0.05	$ 17,323,325	$ 228,964	$ 1,005,815	$ 16,088,546	$ 53,628	$ 653,719,806
Lavigne	1	169	66	13	$ 3,884,126	0.05	$ 4,290,384	$ 50,507	$ 248,023	$ 3,991,854	$ 60,483	$ 657,711,660
Town of Wabigoon + Wabigoon First Nation	2	650	254	39	$ 15,734,519	0.05	$ 17,440,704	$ 191,926	$ 1,004,736	$ 16,244,042	$ 63,953	$ 673,955,703
O'Connor (Outside Thunder Bay)	1	704	275	6	$ 18,417,840	0.05	$ 20,435,158	$ 207,078	$ 1,176,081	$ 19,051,999	$ 69,280	$ 693,007,702
Terrace Bay + Schrieber + Marathon	3	7,959	3,109	200	$ 212,170,780	0.05	$ 235,810,797	$ 2,370,202	$ 13,548,274	$ 219,892,321	$ 70,728	$ 912,900,023
Conmee (outside Thunder Bay)	1	384	150	-	$ 10,440,710	0.04	$ 11,606,810	$ 114,482	$ 666,697	$ 10,825,631	$ 72,171	$ 923,725,654

Union Gas Potential Commuity Expansion Project List

March 25, 2015

Community Name	Communities	Population	Maximum Customer Potential	Distance from Source (km)	Total Capital Costs	Natural PI (without AID)	Minimum Economic Target Threshold modelled at PI=0.6 where beneficial: AID (PI 0.6 threshold where beneficial)	Customer Aid (Expsnaion Surcharge proposal)	Municipal Aid (Property tax rebate proposal)	Residual Aid Req'd	Residual Aid Potential Customer	Cumulative Residual Aid
Camden East, Yarker, Tamworth, Erinsville	4	1,628	636	57	$ 47,563,440	0.04	$ 52,935,700	$ 604,043	$ 3,037,188	$ 49,294,469	$ 77,507	$ 973,020,123
Nolalu (outside Thunder Bay)	1	192	75	9	$ 6,716,445	0.04	$ 7,529,048	$ 55,557	$ 428,882	$ 7,044,608	$ 93,928	$ 980,064,731
Dorion (outside Thunder Bay)	1	77	30	2	$ 2,911,310	0.03	$ 3,276,474	$ 21,886	$ 185,903	$ 3,068,685	$ 102,289	$ 983,133,416
Marks Township (outside Thunder Bay)	1	77	30	-	$ 2,978,810	0.03	$ 3,349,808	$ 21,886	$ 190,213	$ 3,137,708	$ 104,590	$ 986,271,124
Whitefish River	1	371	145	29	$ 15,870,442	0.03	$ 17,851,340	$ 111,115	$ 1,013,415	$ 16,726,810	$ 115,357	$ 1,002,997,934
Bala Muskoka	1	340	133	28	$ 14,873,253	0.03	$ 16,742,200	$ 101,014	$ 949,739	$ 15,691,447	$ 117,981	$ 1,018,689,381
Kaministiquia	1	169	66	-	$ 7,377,250	0.03	$ 8,307,677	$ 50,507	$ 471,078	$ 7,786,092	$ 117,971	$ 1,026,475,473
Dorset	1	340	133	34	$ 16,973,253	0.03	$ 19,154,205	$ 101,014	$ 1,083,836	$ 17,969,356	$ 135,108	$ 1,044,444,829
Jogues (south of Hearst) **NEW PRICING	1	197	77	14	$ 10,925,300	0.03	$ 12,359,029	$ 57,241	$ 697,641	$ 11,604,147	$ 150,703	$ 1,056,048,976
Madsen	1	223	87	8	$ 14,126,980	0.03	$ 16,008,788	$ 65,659	$ 902,086	$ 15,041,044	$ 172,886	$ 1,071,090,020
Arnstein + Port Loring	2	366	143	57	$ 29,515,773	0.02	$ 33,540,255	$ 107,748	$ 1,884,745	$ 31,547,762	$ 220,614	$ 1,102,637,782
Nippising Village + Restoule	2	169	66	44	$ 15,864,126	0.02	$ 18,052,803	$ 50,507	$ 1,013,012	$ 16,989,284	$ 257,413	$ 1,119,627,066
Hoyle	1	64	25	1	$ 6,719,270	0.02	$ 7,656,176	$ 18,519	$ 429,062	$ 7,208,594	$ 288,344	$ 1,126,835,661
Hilton Beach	1	123	48	25	$ 13,633,798	0.02	$ 15,542,932	$ 35,355	$ 870,593	$ 14,636,984	$ 304,937	$ 1,141,472,645
Aroland/Nakina	2	512	200	71	$ 68,906,182	0.02	$ 78,615,296	$ 181,324	$ 4,400,040	$ 74,033,933	$ 370,170	$ 1,215,506,577
Baysville Muskoka	1	84	33	24	$ 12,682,229	0.02	$ 14,491,421	$ 23,570	$ 809,830	$ 13,658,021	$ 413,879	$ 1,229,164,598
Whitefish Falls	1	79	31	20	$ 12,287,229	0.02	$ 14,037,244	$ 23,570	$ 784,607	$ 13,229,067	$ 426,744	$ 1,242,393,665
Mactier (Parry Sound)	1	84	33	32	$ 16,407,229	0.02	$ 18,767,661	$ 23,570	$ 1,047,692	$ 17,696,399	$ 536,255	$ 1,260,090,064
McKenzie Island **NEW PRICING	1	205	80	1	$ 42,648,920	0.02	$ 48,783,884	$ 60,608	$ 2,723,369	$ 45,999,907	$ 574,999	$ 1,306,089,971
TOTALS	140	119,328	46,612	1,702	$ 1,386,133,312		$ 1,474,564,016	$ 80,396,126	$ 88,077,919	$ 1,306,089,971	$ 28,020	

Notes:

- All dollars are based on high level "tabletop" estimates, generally accurate to nearest $100,000, +/- 25%. Numbers may appear accurate only because of formulaic approaach taken to costing.
-Potential projects are discplyed in order of economic viability, with most feasible first, basd on residual aid required per potential custoemer

Key Imbedded Assumptions:

-OEB approves current proposals for regulatory reform; Capital pass-through, PI threshold reductions, customer surcharge contribution, municipal tax rebates and related rates/accounting treatment.
-Customer aid is based on 23 cents per m3 for mass market customers and half that for large industrial contract customers, modelled to a maximum period of 8 years
-Municipal aid is based on rebate of incremental propoerty taxes for same period as customer aid, at average annual tax rate of 1% of capital investment

Okrucky, Jeff

From: Okrucky, Jeff
Sent: March 25, 2015 5:10 PM
To: 'Gujral, Jasmine (MEDEI/MRI)'
Cc: Ungerman, Paul
Subject: RE: NG - Union Contacts
Attachments: MEDT UGL Community List.xlsx

Hi Jasmine,

Attached is a spreadsheet containing the information I believe you were hoping to get from us on potential community expansion costs.

As you know I was quite hesitant to provide commercially sensitive costing information, but I understand having this data can aid the Ministry significantly in designing program criteria, and consequently we have included that information. I would ask that the contents remain confidential within the Ministry.

Just a couple of notes. We've included gross capital costs for each project, and the numbers may appear more accurate than they actually are only because a formulaic approach was used in part to derive them. I would suggest that notionally they should be rounded to the nearest $100,000, and be considered generally within plus or minus 25% accurate. The same would apply to the other dollar figures. All figures are in 2014 dollar equivalents.

We've assumed regulatory approval for our flexibility proposals in determining how much would need to be contributed financially to make each project viable. The financial contributions necessary from the Provincial loans and grants that have been announced, or from other sources, are in the column titled "Residual Aid Required" .

It may be worthwhile to connect briefly once you've had a chance to look at the contents, and I'd be happy to do so if you wish.

Best Regards,

Jeff Okrucky
Director, Distribution Marketing

Union Gas Limited
50 Keil Drive North
Chatham, ON N7M 5M1

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800 571-8446 ext 5004681
519 401-6490 mobile

Regulatory Flexibility: Annual Cost Impacts For Existing Customers

The following illustrates a worst case scenario:

- Impact of regulatory flexibility on existing customer costs will vary with communities serviced
- For demonstrative top 10 communities identified by Union Gas:
  - $130m gross capital investment, net year 1 capital of $70M
    - $30M within current regulatory guidelines
    - $40M is made available through new regulatory flexibility
    - $60M funded by Provincial loans/grants
    - This is slightly over the limit that Union's portfolio could absorb ($63M)
  - Assuming all capital incurred in one year:
    - The $30M investment made within current economic feasibility guidelines results in year 1 customer cost impact of 0.5% of total bill. Over the long term this portion of the investment has no cost impact, since broader Investment Portfolio PI drops to current minimum of 1.1.
    - Annual cost impact of next $40M declines as expansion customer and municipal contributions increase over time
  - Incremental annual cost for each customer group is provided in the table below:

Non Contract Customer Group	Average Annual Bill	Year 1 (Prior to collection of customer/muni contributions)		Year 8 + (After customer/muni contributions collected)	
		Incr Avg Annual Cost	% of Total Bill	Incr Avg Annual Cost	% of Total Bill
Capital investment ($30M) within current economic feasibility threshold guidelines					
Residential	$850	$4	0.5%	$1	0.1%
Commercial	$4,000	$20	0.5%	$6	0.1%
Industrial	$14,800	$74	0.5%	$15	0.1%
Incremental capital investment ($40M) enabled through minimum economic feasibility threshold reductions					
Residential	$850	$5	0.6%	$1	0.2%
Commercial	$4,000	$27 ($19-$162)	0.6%	< $8 ($3-$52)	0.2%
Industrial	$14,800	$99 ($36-$311)	0.7%	< $21 ($5-$242)	0.1%

- For a multi year program, impacts would be cumulative; in other words, if we invested the same amount the following year, cumulative impacts would generally double. Given the Provincial funding commitment spans a two year program and the level of funding required for the top 10 communities from the Province, it's likely that the two year cumulative customer impacts are 1-1.5 times the amounts shown above.
- Cost impacts for commercial and industrial customers range widely depending on rate class, which is why the ranges have been included above.

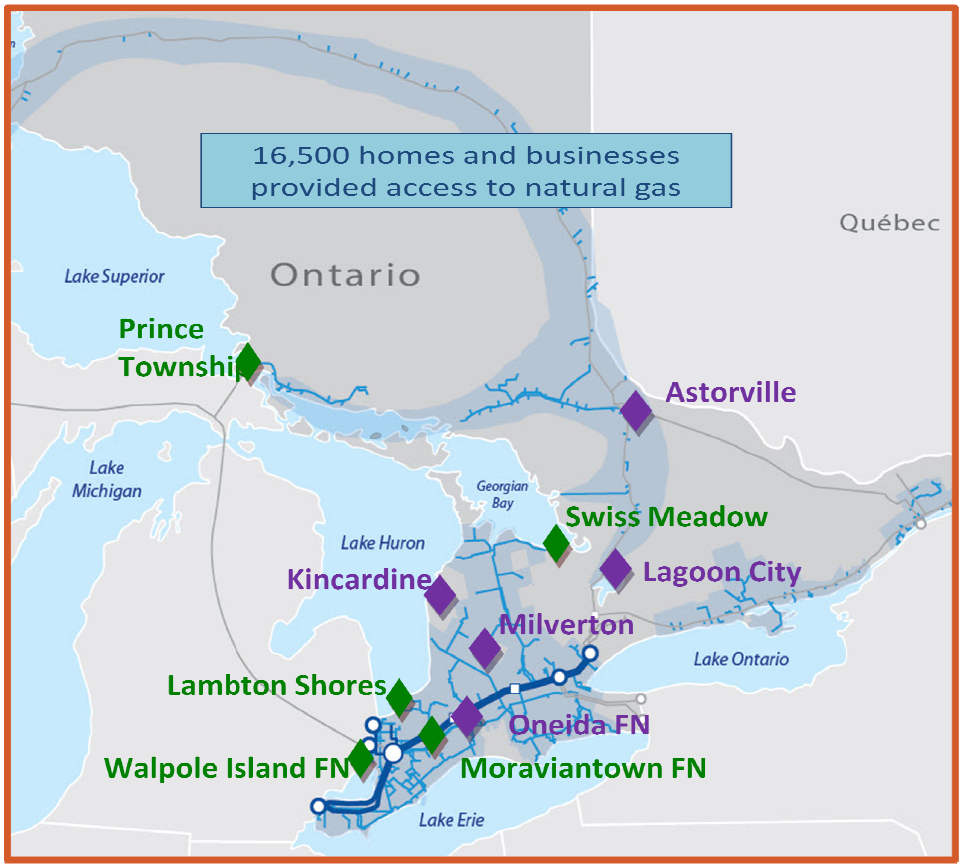
RELATED INFORMATION:

- Contract customers not included in table; it's unclear whether costs would be allocated to this customer group.
- Rate base is $70M in year 1, declining to $20M by year 8 as expansion customer (expansion surcharge) and muni contributions are collected.
- Revenue requirement related solely to the capital investment is $20.7M in year 1, declining to $5.7M in year 8. Net delivery revenues building to ~$1.5-2M in year 8 have not been included and would further offset the future revenue requirement.

Regulatory Flexibility: Annual Cost Impacts For Existing Customers

TOP 10 COMMUNITIES

The top 10 list we've developed is for demonstration purposes only and only represents communities around Union Gas franchise territory (i.e. It excludes likely Enbridge candidates). What the Ministry deems as most important in terms of their interests would have a very significant impact on what communities are included, as well as costs.
Union's list is based on a ranking of two criteria: 1.number of potential customers & 2. economic feasibility. Changing these criteria will change the list. If, for example, the Ministry were to indicate that unemployment rate is the primary factor they want considered in which communities receive service first, our list would look totally different.



Project enabled through regulatory flexibility and municipal tax rebates

Project also requires Provincial grants/loans or other funding

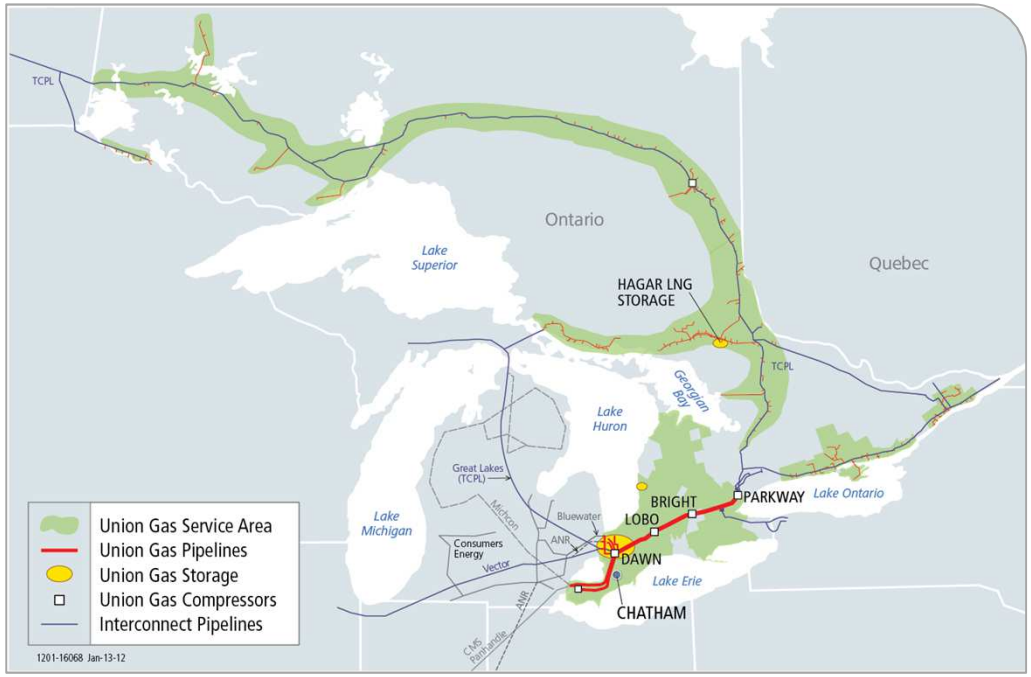
ONTARIO'S ECONOMIC RENAISSANCE
FUELLED BY NATURAL GAS

Presentation to Minister Duguid
December 16, 2014

uniongas
A Spectra Energy Company

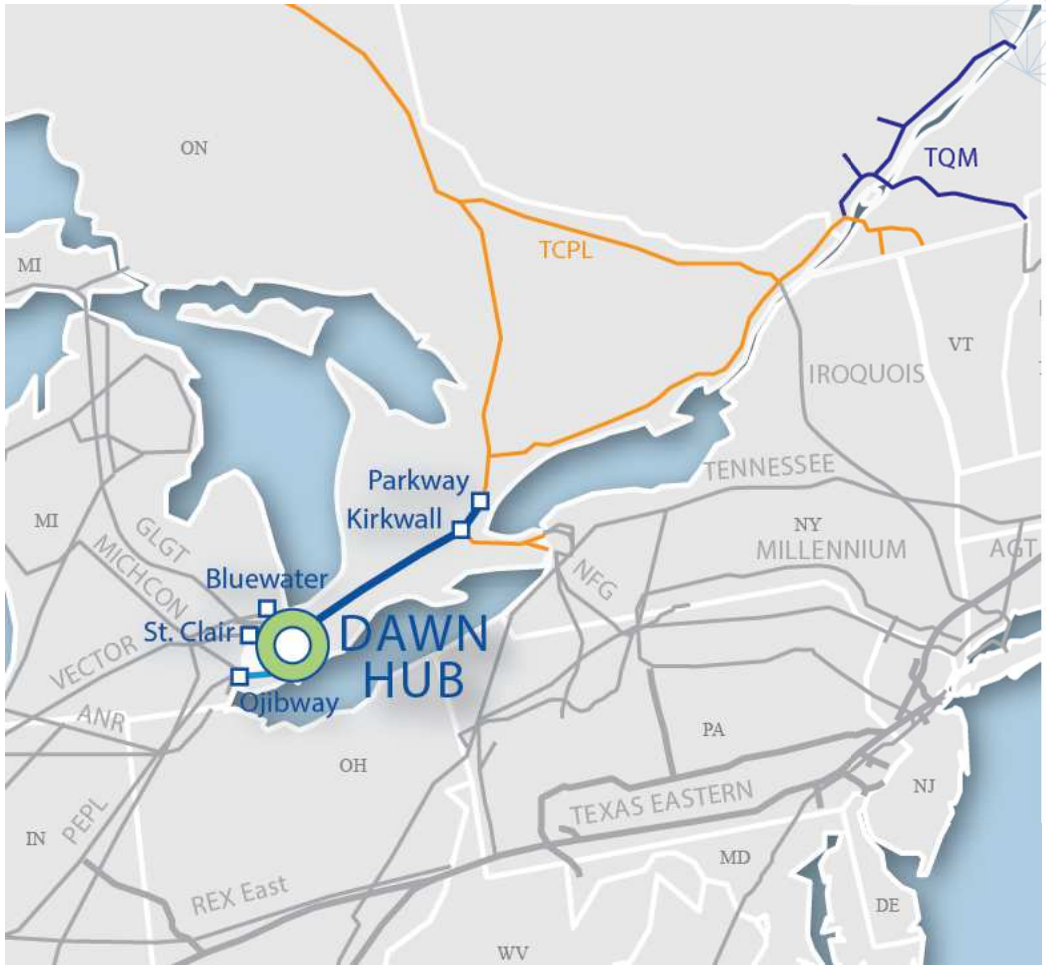
UNION GAS: SERVING ONTARIO FOR MORE THAN 100 YEARS

- Major Canadian natural gas storage, transmission and distribution company
- Over 100 years of experience and safe service to customers
- Dawn Storage facility – largest underground storage facility in Canada
- Assets of $6.4 billion, ~1.4 million customers, ~2,400 employees
- One of Canada's Top 100 Employers for 2011-2014
- Parent company Spectra Energy spans 7 provinces and 30 states – a NA energy infrastructure leader



Retail Customers	1.4 million
2013 Pipeline Throughput	1.402 Tcf
Distribution Pipe	63,540 km / 39,480 mi
Storage Capacity	156 Bcf
Transmission Pipe	4,785 km / 2,980 mi

DAWN STORAGE AND MARKET HUB - A CRITICAL ASSET FOR ONTARIO AND BEYOND



- Dawn is largest natural gas trading HUB in Canada and third largest in North America
- Direct access to gas storage reduces price volatility
- Diverse upstream connectivity with all major gas producing basins
- Growing connections to Eastern Canadian and U.S. Northeast consumers

Canadian Eastern LDCs, power generators and industrial consumers are choosing Dawn for their gas supply needs

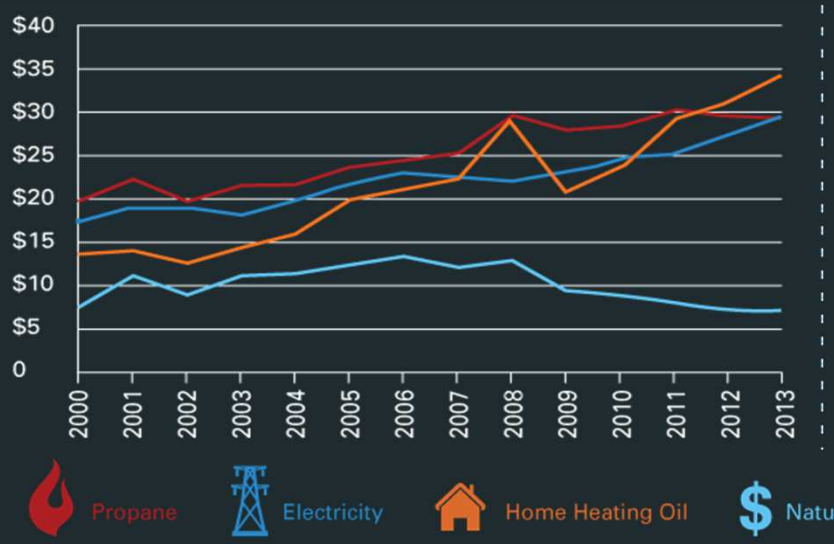
AFFORDABLE NATURAL GAS PRICES HAVE CREATED A COMPETITIVE ADVANTAGE FOR NORTH AMERICA

North America has and will continue to have the world's lowest natural gas prices…

which gives U.S. companies an edge over global competitors.

Natural-gas prices in other major manufacturing economies as multiples of U.S. prices; 2001 averages

NATURAL GAS COST ADVANTAGES



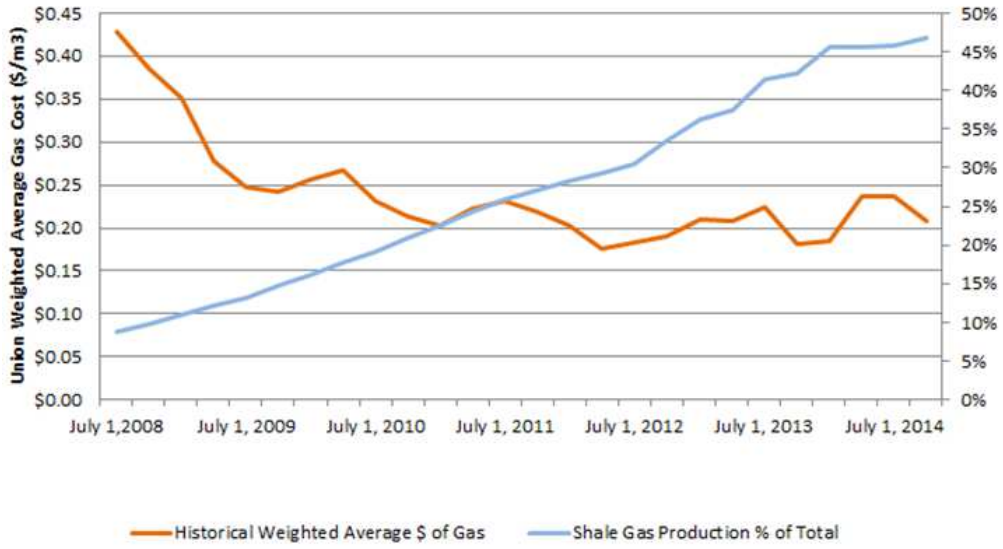
(burner tip rates)

Affordable North American natural gas has a distinct cost advantage over other forms of energy

ONTARIO IS POSITIONED TO EXPLOIT NATURAL GAS AND DRIVE ITS MANUFACTURING RENAISSANCE

There have been dramatic shifts in North American gas supply…

- Extraction technology fundamentally changed market
- Natural gas production increased and gas from new supplies = 50% of new exploration and supply



… and Ontario is strategically positioned to attract new competitively-priced natural gas supplies

- Union Gas Dawn Hub attracts new affordable gas supplies
- Natural gas infrastructure to and from Dawn to be expanded in the coming years

Will give Ontario ability to provide existing and prospective manufacturers secure access to abundant, affordable and flexible energy

BOLD PLAY: CONNECTING ONTARIO FAMILIES AND BUSINESSES TO NATURAL GAS

WHY IS MAKES SENSE:

- Expanding access to communities can deliver energy savings of more than $40 million/year to families and businesses.

- Residential savings: $1,500 to $2,500/year over current energy costs for heat and hot water, depending on their current energy source.

- Medium sized businesses savings: up to $15,000 per year over current energy costs.

"Converting to natural gas could give [Kincardine] a competitive edge in terms of attracting and keeping businesses. We're one of the few jurisdictions left in Ontario that doesn't operate on natural gas, and that makes us less competitive. We want to keep people working here. We want to keep businesses."
-Councilor Ron Coristine, Municipality of Kincardine

BOLD PLAY: CONNECTING ONTARIO FAMILIES AND BUSINESSES TO NATURAL GAS

GOVERNMENT ASKS:

1. Direct the Ontario Energy Board (OEB) to review remove regulatory barriers:
   - Capital Pass Through
   - Relaxation of Minimum Economic Feasibility Thresholds
   - Approval of an Expansion customer surcharge

   Several communities could be connected without drawing on $30m grant program with these changes alone

2. Immediately commence effort to define the criteria and processes related to announced $30m municipal grant & $200m interest free loan programs

Top 10 Community Expansion Projects

Project enabled through regulatory flexibility and municipal tax rebates

Project also requires Provincial grants/loans or other funding

BOLD PLAY: CONNECTING ONTARIO FAMILIES AND BUSINESSES TO NATURAL GAS

- Impact of regulatory flexibility on existing customer costs will vary with communities serviced
- For demonstrative top 10 communities:
  - $130m gross capital investment, net year 1 capital of $70m
    - $30m within current regulatory guidelines
    - $40m is made available through new regulatory flexibility
    - $60m funded by Provincial loans/grants
  - Assuming all capital incurred in one year:
    - The $30m investment made within current economic feasibility guidelines results in year 1 customer cost impact of 0.5% of total bill. Over the long term this portion of the investment has no cost impact.
    - Annual cost impact of next $40m declines as expansion customer and municipal contributions increase over time:

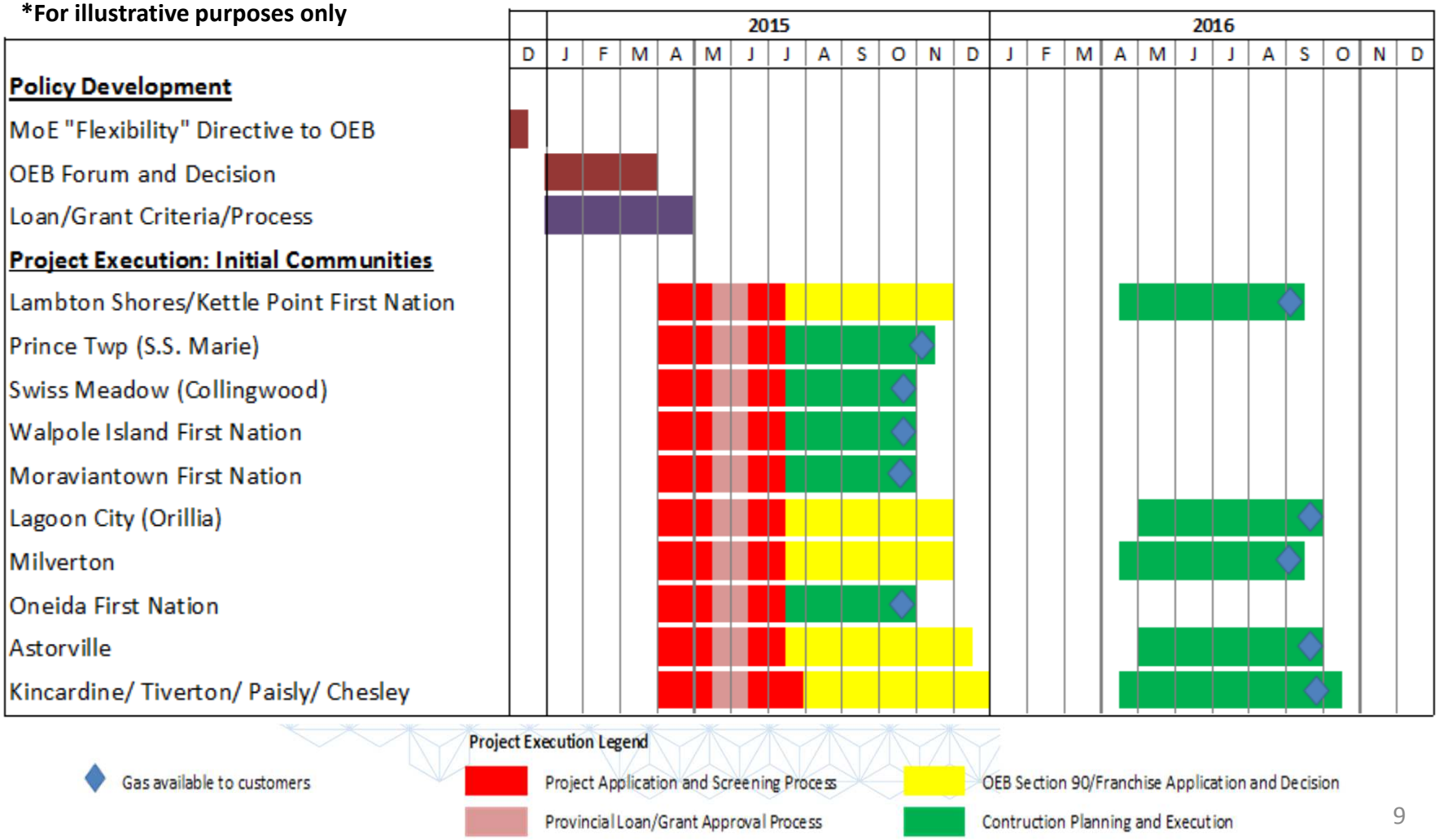
Existing Non Contract Customer Group	Year 1 (Prior to collection of customer/muni contributions)		Year 8 + (After customer/muni contributions collected)	
	Avg Annual Cost	Avg % of Total Bill	Avg Annual Cost	Avg % of Total Bill
Incremental capital investment ($40M) enabled through minimum economic feasibility threshold reductions				
Residential	$5	0.6%	< $1	< 0.2%
Commercial	$27 ($19-$162)	0.6%	< $8 ($3-$52)	< 0.2%
Industrial	$99 ($36-$311)	0.7%	< $21 ($5-$242)	< 0.1%

PROPOSED REGULATORY REFORM: PROGRAM DEVELOPMENT TIMELINES & CONSTRUCTION SCHEDULE

Policy development timelines are critical to building a success story, as is breaking ground & demonstrating progress in fiscal years 2015-2016 & 2016-2017.

Goal: All approved expansion communities connected to natural gas system by 2018

***For illustrative purposes only**



BOLD PLAY: ONTARIO'S ROBUST NATURAL GAS INFRASTRUCTURE SHOULD BE A PART OF ONTARIO'S PITCH TO MANUFACTURERS

WHY IT MAKES SENSE:

- Industry regards energy as key input cost in operations - utilizes 10X the energy of other sectors
- Ontario's manufacturing continues to struggle to defend its eroding competitive position
- Establishing a diversity of energy sources is key to ensuring secure long-term supply of affordable energy for manufacturing and other sectors
- With low fuel costs and lower capital investment costs, natural gas provides a flexible option for Ontario's power generation future

BOLD PLAY: ONTARIO'S ROBUST NATURAL GAS INFRASTRUCTURE SHOULD BE A PART OF ONTARIO'S PITCH TO MANUFACTURERS

GOVERNMENT ASKS:

1. Approve and support critical projects to ensure security of supply:
   - Projects proposed by Enbridge, Union Gas, and TransCanada to ensure adequate capacity between Dawn, the GTA and Eastern Ontario
   - Governments should continue to deal expeditiously with the regulatory and permitting applications for these essential projects

2. Actively pursue companies in energy intensive industries and those that use natural gas as a feedstock:
   - Province's geographic location and access to affordable and reliable energy should be leveraged as selling points
   - Activate a "one window team" to aggressively pursue priority opportunities and align needed ministries

AFFORDABLE NATURAL GAS PRICES ARE DRIVING NORTH AMERICAN INDUSTRIAL GROWTH

April 2012: Announced

Current: Permitted or under construction

ONTARIO GOVERNMENT HAS RECOGNIZED VALUE OF NATURAL GAS & NATURAL GAS EXPANSION…BUT THERE'S STILL WORK TO BE DONE:

Needed Expansion Next Steps:

- Establish a multi-ministry working group, led by the Ministry of Economic Development, (with participation from the Ministry of Energy) tasked with coordinating OEB/program development work

- Ministry of Energy ministerial directive to the Ontario Energy Board to provide gas utilities with the regulatory changes needed to initiate community expansion without government funding

- Work with gas utilities on timelines for program creation/rollout with the goal of an announcement for Budget 2015

Ontario's Broader Natural Gas Industrial Opportunity:

- Formal partnership between Ministry of Economic Development & Union Gas on strategic approach to identification and attraction of natural gas intensive industry to Ontario.

APPENDIX

COMMUNITY EXPANSION TIMING:

FROM PARTNERSHIP TO PIPES IN GROUND – ROUGH TIMING

Process Step	Description	Approx Time
Preliminary Assessment / Economics	• Conduct community census *(i.e. house / business count)* + estimated annual / peak natural gas usage • Estimate pipeline size / lengths / costs • Develop high level forecast + economics + aid / customer	3-4 months
Initial Municipal Discussion (CEO/Mayor)	• Share Preliminary Assessment Information + franchise information with Mayor / CEO • Gain support of project moving	
Market Survey	• Conduct Market Survey (*mail/telephone/both*) to gauge support of project, test aid thresholds, and collect market info *(i.e. existing fuel type)*	
Detailed Economics	• Verify forecast info *(based on mkt survey)* • Verify pipeline lengths/size, pressure and facilities requirements • Meet Commercial/Industrial customers *(as required)* to verify load requirements etc. • Detailed Costing (with Pipeline Construction Contractor) • Test project area scenarios to establish limits of pipelines / service areas • Recalculate economics with updated information	
Present Municipal Franchise Agreement *(if necessary)*	• Send Municipal Franchise Agreement / Certificate of Public Convenience to municipal council • Meet with council to answer questions and garner support *(letter)* of the Agreement and the project moving forward with an application to the OEB *(if necessary)*	
Prepare OEB Filing *(if necessary)*	• Prepare OEB filing for project / franchise approval *(if necessary)* and file with OEB	4-5 months
OEB Project / Franchise Hearing	• Written or Oral Hearing with Interveners to discuss / critic OEB franchise / project application	
OEB Decision	• Decision rendered to proceed with project	
Final Sign Off of Franchise Agreement	• Send to Municipal Council for sign off / approval	
Construction Preparations	• Detail pipeline running lines with Road Supervisors/Pipeline contractors • Establish partnerships with local companies where possible and utilize local labor resources • Confirm Capital Budget spend • Order materials	3-6 months
Community Open House / Communications	• Hold Community Openhouse to outline project plans, answer questions and generate support / service applications • Set up local office / store front location • Develop Project Sales / Marketing Plans • Organize and train industry stakeholders *(i.e. local HVACs)*	
Arrange Internal Administration / Processes	• Set up internal mapping and customer information systems for new project area • Internal communications/FAQs to Call Centers / Meter Reading / Operations etc	
Construction / Service Installations	• Complete project / distribution pipeline + stations construction • Collect customer applications and install services + meter activation	
Project Closure	• Project area becomes part of regular new business	

EXPANSION CANDIDATES: REGULATORY FLEXIBILITY ILLUSTRATION

	Lambton Shores and Kettle Point First Nation	Milverton, Wartburg, Rostock	Astorville
Location	SW Ontario, east of Sarnia	SW Ontario, NW of Stratford	N Ontario, SE of North Bay
Maximum Potential customers	1,620	1,082	467
Gross Capital Required	$4.63M	$4.85M	$3.23M
Unaided PI	0.47	0.34	0.32
Unaided Project NPV	-$2.42M	-$2.84M	-$2.16M
Aid required for 1.0 PI	$2.82M	$3.44M	$2.52M
Aid required for 0.8 PI	$2.28M	$3.17M	$2.31M
Aid required for 0.6 PI	$1.28M	$2.63M	$1.93M
Potential expansion surcharge contribution	$1.23M	$1.61M	$0.35M
Potential Muni Tax rebate contribution	$0.05M	$0.31M	$0.21M
Remaining Aid Gap (PI 0.6)	$0*	$0.71M**	$1.37M**

Project would be viable without the need for Provincial financial support

****** ***Project would require additional funding from Province, Municipality or other parties***

BOLD PLAY: UNLOCKING THE RING OF FIRE

WHY IT MAKES SENSE:

- Rising fuel costs and difficulties securing reliable and affordable electricity challenging the economics of developing resources
- Affordable, flexible and efficient energy could unlock the Ring of Fire by making production and processing affordable
- Subsidizing electricity rates for the Ring of Fire is not a sustainable solution and is costly to existing and future ratepayers and taxpayers.

GOVERNMENT ASKS:

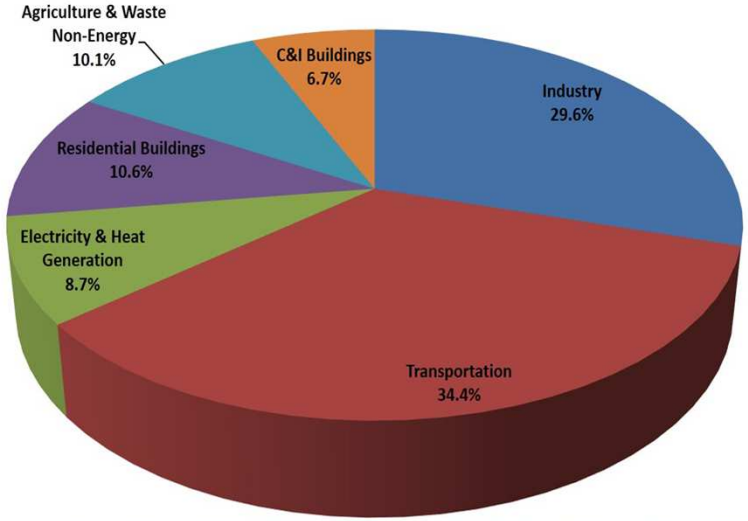
1. Establish policy promoting the use of natural gas:
    - Undertake broader policy discussion surrounding LNG/CNG applications for mining expansion and operation in Ontario

2. Study CNG/LNG cogeneration as alternative to subsidized electricity to meet the energy needs of the Ring of Fire:
    - CNG/LNG an alternative solution to meet the significant energy demands of processing chromite and other minerals as well as propel trucks/heavy equipment

BOLD PLAY: MAKING THE TRANSPORTATION OF GOODS AND PEOPLE CLEANER AND MORE AFFORDABLE – HD/RTB VEHICLES

WHY IT MAKES SENSE:

- 44% less expensive than gasoline and up to 45% les expensive than diesel = improved economic competitiveness
- Demand for natural gas technology and infrastructure would create jobs and economic development opportunities
- Provides significant carbon advantage with 20-25% lower lifecycle greenhouse gas emissions



Source: Environment Canada, National Inventory Report 1990-2012 Greenhouse Gas Sources and Sinks in Canada (Ottawa 2014), Part 3, p. 25 Table A11-12

NATURAL GAS EMISSION REDUCTIONS AS A % OF GASOLINE

Displacing 1 Gasoline Gallon Equivalent (GGE) of vehicle fuel with Natural Gas

BOLD PLAY: MAKING THE TRANSPORTATION OF GOODS AND PEOPLE CLEANER AND MORE AFFORDABLE – HD/RTB VEHICLES

GOVERNMENT ASKS:

1. Consider time-limited incentives, in the form of accelerated depreciation, to support the purchase of new CNG or LNG vehicles and the conversion of existing vehicles to use these fuels

2. Promote and support private sector investment in LNG liquefaction plants and LNG refueling stations:
   - Quebec - seek to mirror existing provincial legislation that provides incentives a “blue road” between Quebec City and Windsor and north through Sudbury.
   - Consider accelerated capital cost allowance for fuelling equipment to spur development.

3. Harmonize regulatory approaches to natural gas vehicles and refueling infrastructure:
   - Aid in the development of regulatory standards across the transportation industry which would remove barriers to adoption.

BOLD PLAY: COMBINED HEAT AND POWER (CHP) SYSTEMS ARE COST AND ENVIRONMENTALLY EFFICIENT

Why It Makes Sense:

- Combined Heat and Power (CHP) systems are integrated energy systems that use natural gas to produce heat and electricity simultaneously.
- The wider utilization of CHP systems can help business competitiveness while strengthening and securing the electricity system, better serving industry through increased energy security and relieving critical pressure on the grid.

Recent Installations

- Windsor Casino (12 MW);
- West End Community Centre Guelph (.2 MW); and
- London Health Sciences (11 MW).

Under Construction

- A 5 MW project is currently in the commissioning phase.

Potential CHP Projects

- Over 50 projects are currently under investigation.

- Reduced costs and increased competitiveness for business:
  - Reduces the overall costs of buying electricity and heating separately;
  - Captures thermal energy and utilize in business operations; and
  - Eliminates 4-9% of energy losses during conventional electricity distribution and transmission.
- Energy system security:
  - Increases resilience of energy infrastructure and avoid potential supply disruptions;
  - Improves system grid operations by limiting/reducing electricity transmission and distribution congestion - reducing the need for more wire expansion; and
  - Assists businesses with energy price volatility and in handling potential weather-related electricity supply disruption.
- Increased energy and environmental efficiencies:
  - Reduces CO_2 emissions approximately 30% compared to using electricity from a combined-cycle natural gas plant; and
  - Reduces the need for distribution infrastructure due to localizing energy and heat into one system.

BOLD PLAY: POLICY CLARITY CAN UNLOCK THE POTENTIAL OF CHP SOLUTIONS

Barriers to the Opportunity

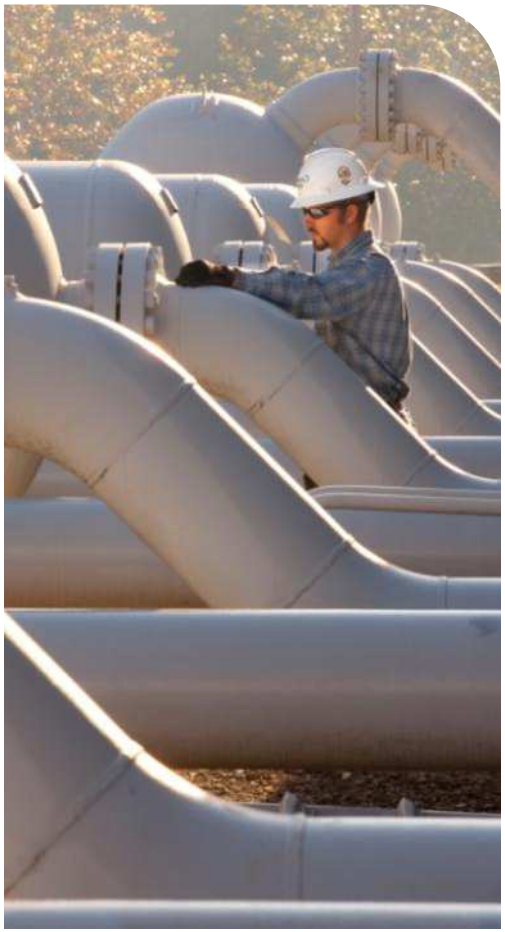
- CHP projects are currently frozen in Ontario:
  - CHP was identified in the LTEP, however as of November 2014 a final program has yet to be released.
  - CHP for greenhouses, agri-food and district energy system was identified in the LTEP. There is a need to support CHP development in all sectors.
- Lack of a competitive and workable stand-by-rate for CHP projects.

Government Asks

1. Provide direction to the Ontario Power Authority regarding Combined Heat and Power Standard Offer Program (CHPSOP) applications.
2. Work with the OEB to establish a fair, transparent and equitable stand-by-rate.
3. Increase government-industry coordination of CHP initiatives.

Other jurisdictions recognize the value of CHP projects

- President Obama's *Executive Order 13626 – Accelerating Investment in Industrial Energy Efficiency*, calls for 40 new gigawatts of cost-effective CHP by 2020.
- The EPA CHP Partnership works with organizations to promote the economic, environmental and energy benefits of CHP and the program has created 5,700MW of new CHP capacity.
- In May, government, utilities, technology providers, and developers met to advance CHP in Alberta.
- In BC, the Ministry of Agriculture published a discussion paper to guide local governments in regulating CHP generation at greenhouses in the province's Agricultural Land Reserve .

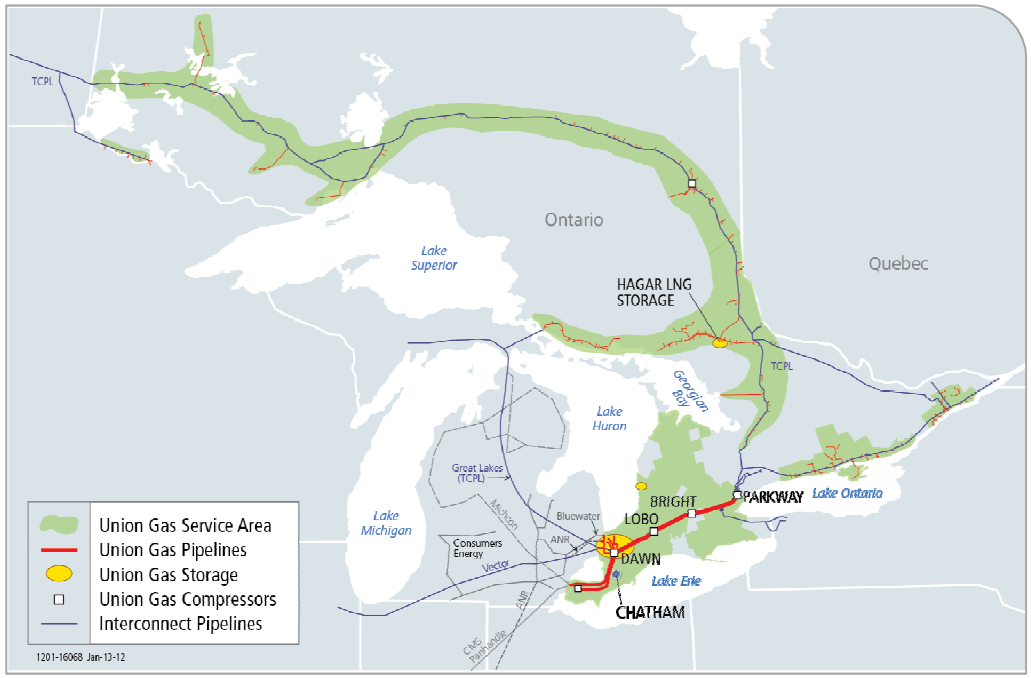


November 27, 2014

Rural/Northern Community Expansion

Union Gas

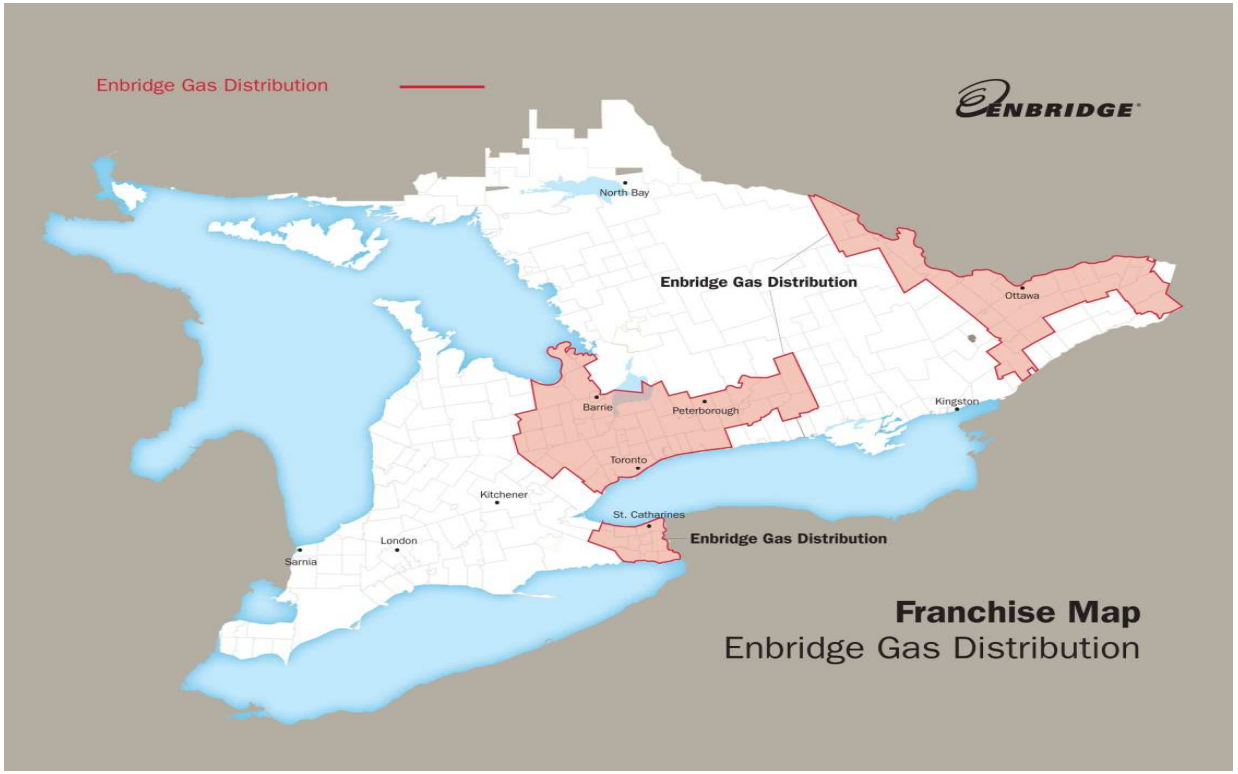
- Major Canadian natural gas storage, transmission and distribution company
- Over 100 years of experience and safe service to customers
- Dawn Storage facility – largest underground storage facility in Canada
- Assets of $6.4 billion, ~1.4 million customers, ~2,400 employees
- One of Canada's Top 100 Employers for 2011-2014
- Parent company Spectra Energy spans 7 provinces and 30 states – a NA energy infrastructure leader



Customers	1.4 million
2013 Pipeline Throughput	1.402 Tcf
Distribution Pipe	63,540 km / 39,480 mi
Storage Capacity	156 Bcf
Transmission Pipe	4,785 km / 2,980 mi

Enbridge Gas Distribution

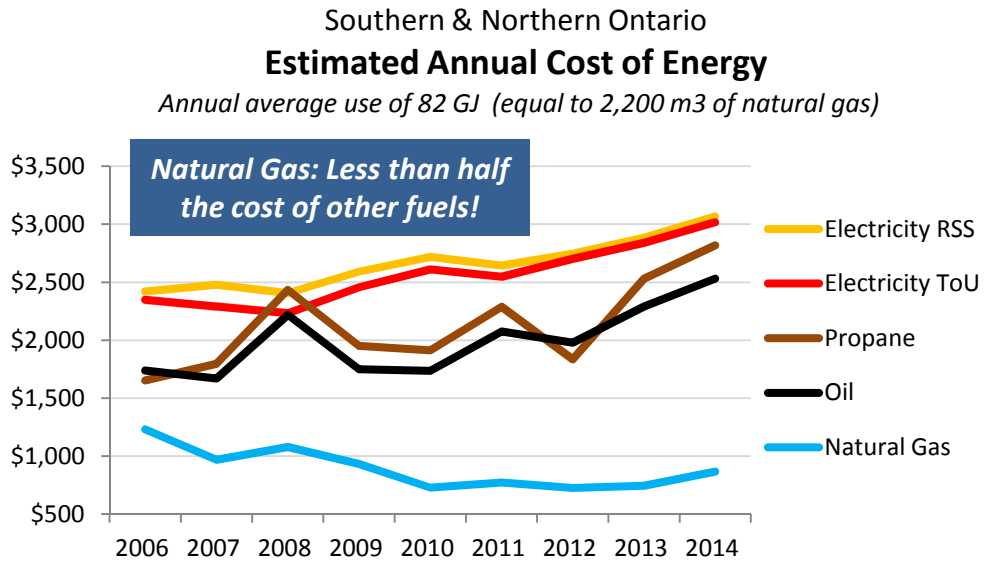
Distribution
Customers: 2 million (*92% Residential)
Annual Throughput: 420 BCF
Distribution Pipe: 36,000km
Markets Served: Toronto, Barrie, Ottawa, Niagara
Storage
Capacity: 103 BCF



- Canada's largest Natural Gas Distribution company based in Ontario with 160 years of experience in safe and reliable service to our 2 million customers
- Assets of $4.7 billion in Ontario and annual revenue of approximately $2.4 billion
- More than 2,200 employees in Ontario plus thousands of indirect employees
- Enbridge Gas Distribution is part of the Enbridge family of companies which also owns renewable and transmission pipeline assets in Ontario

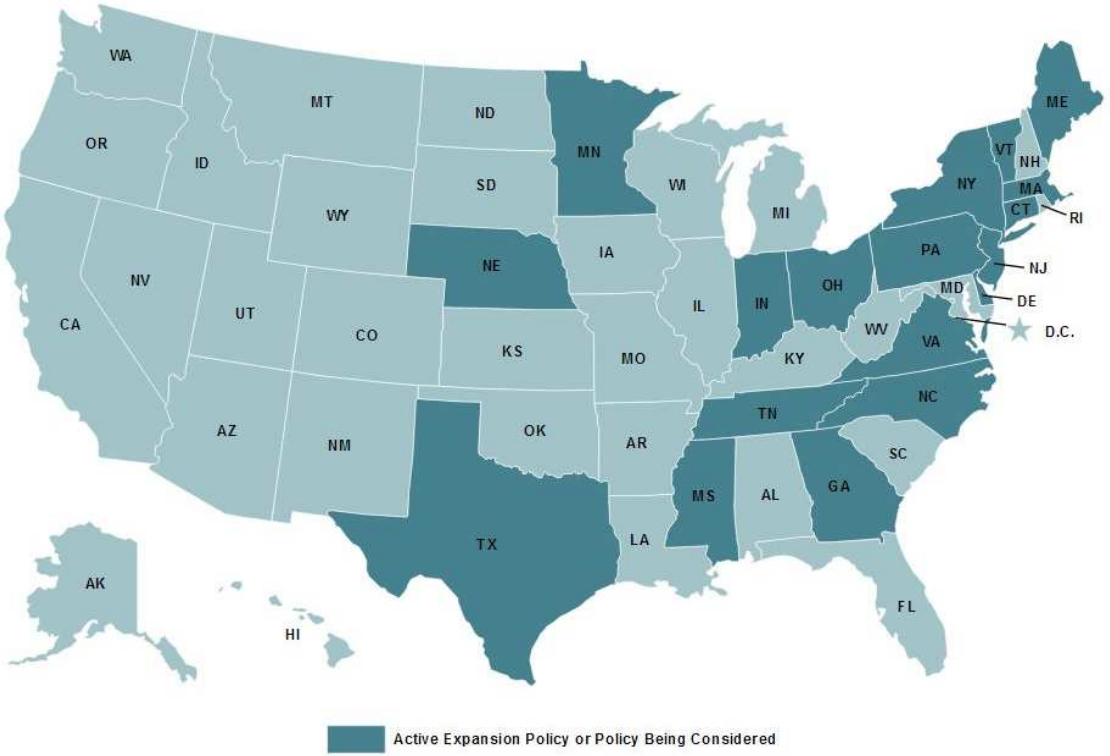
Background

- Escalation in energy prices for other fuels is creating unprecedented interest in conversion to natural gas
- Requests and detailed discussion with a number of municipalities
- Ontario Federation of Agriculture Provincial budget submission
- Joint EGD/Union dialogue with Ministry of energy



- December, 2013 Provincial Long term Energy Plan commitment:
  - "The government will work with gas distributors and municipalities to pursue options to expand natural gas infrastructure to service more communities in rural and northern Ontario"

Other Jurisdictions



Source: Kyle Rogers, AGA, February, 2014

- 18 US States have adopted or are considering innovative natural gas infrastructure expansion programs
  - Recent examples: Washington, Georgia, Connecticut, Nebraska, Pennsylvania
- Natural gas increasingly viewed as an economic enabler

Activities to Date

- Joint discussion: EGD & Union Gas
- Analysis of potential scope; initial focus on connecting rural/northern towns and villages
  - Higher densities provide more “bang for the buck”
  - Can enable further stages for non-urban residents and farms
- Discussions with several Ministries regarding opportunities and barriers; Ministry of Energy focal point due to LTEP commitment
- Dialogue with various municipal officials on barriers and enablers
- Dialogue with OFA on non-urban opportunities
- Specific Ministry of Energy dialogue on possible Program enablers
- Alignment with OFA on community proposal as a sensible first stage

Rural/Northern Towns and Villages
Scale and Barriers

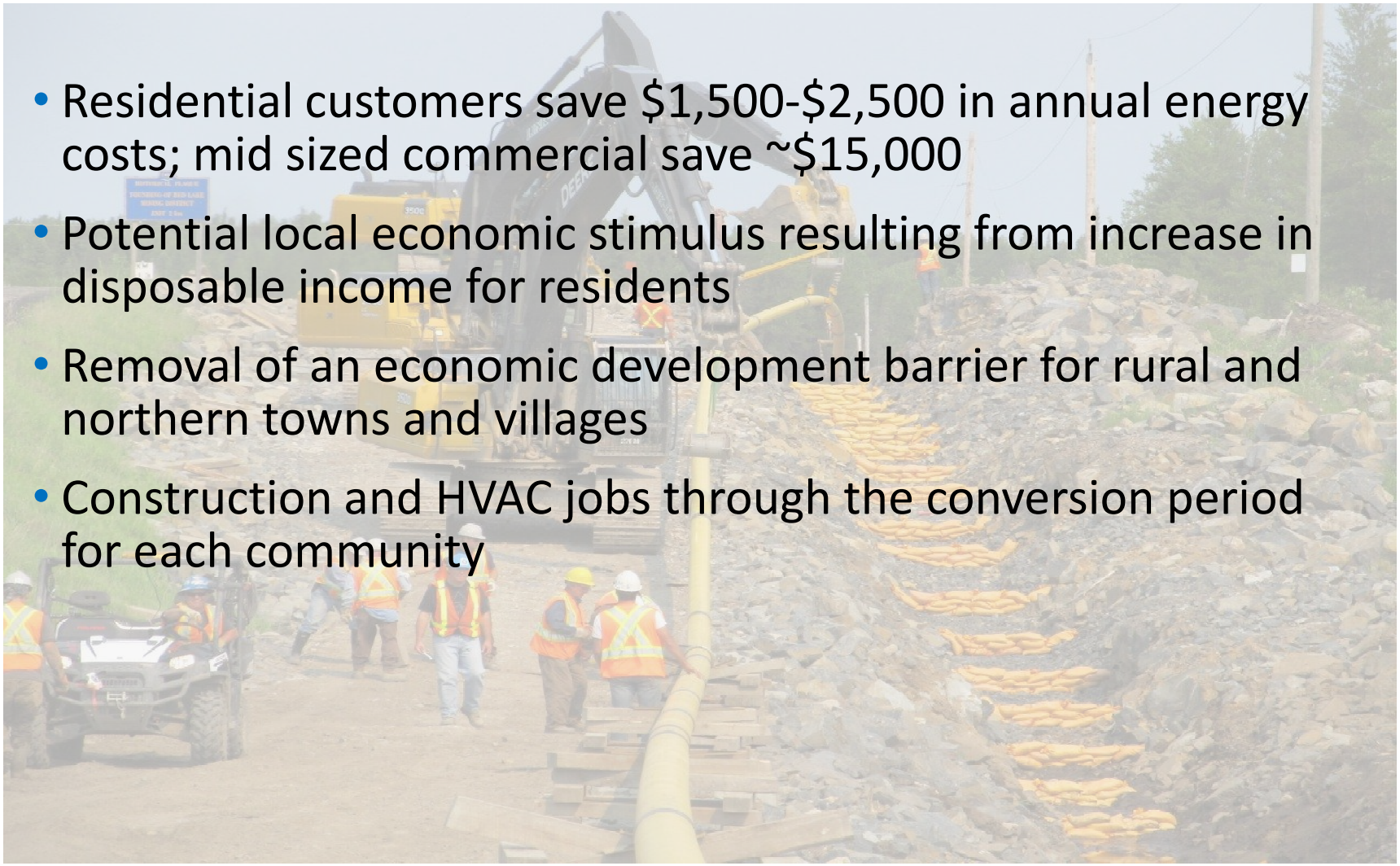
Potential Scale

- ~30 community projects >500 homes/businesses; ~100 with >100 homes/businesses
- Natural gas access potential for a population of up to 140,000

Barriers

- Economic Feasibility
  - ~30 km average from existing gas system
- Regulatory Flexibility
  - Very few communities meet minimum EBO188 economic feasibility standards
  - Prohibitive up-front contributions necessary

Benefits



- Residential customers save $1,500-$2,500 in annual energy costs; mid sized commercial save ~$15,000
- Potential local economic stimulus resulting from increase in disposable income for residents
- Removal of an economic development barrier for rural and northern towns and villages
- Construction and HVAC jobs through the conversion period for each community

Suggested Principles

- Each of the major beneficiaries of extended gas infrastructure contribute towards the cost:
  - Province
  - Municipalities/First Nations
  - Conversion Customers
  - Gas Utility
- Public policy position on “equal access” principle a key consideration
  - If cross subsidization from existing ratepayers contemplated, resulting long term rate impact should be limited
- Utility partners should not be exposed to additional financial risk related to the incremental capital investment

Community Expansion Enablers

- Direct Provincial financial support:
  - $30 million in economic development grants over 2 years
  - $200 million in interest free municipal loans over 2 years
- Regulatory Flexibility:
  - Remove barriers to significant incremental capital investment by utilities through IR term
  - Allow for new revenue tools to support customer contributions to economic feasibility funded from the economic benefits they receive each year
  - Increase flexibility in economic feasibility thresholds
- Customer contributions funded from the economic benefits they receive each year
- Municipal contributions:
  - At minimum neutralize property tax benefits for initial period
  - Additional economic contributions funded from Province (above)

Regulatory Flexibility Proposals

1. Capital Pass Through to Rates (Y Factor Eligibility)
   - Protects shareholder from impacts of low initial period project PI's during IR term
   - Few individual projects with net capital >$50M (Y factor), however, portfolio of projects highly likely to exceed this
2. Project Economic Feasibility: Project Minimum PI of 0.6, Investment Portfolio Minimum PI of 0.9
   - Combination allows for incremental capital spending (up to $60M/year at Union) within envelope; grant availability may limit this to some extent
   - Portfolio PI reduction allows for minimal level of capital investment cross subsidized by existing ratepayers (estimated rate impact $2/year/customer)

Regulatory Flexibility Proposals

3. Volumetric Rate Rider ("Expansion Surcharge") approval: Rate and Accounting Treatment

- Treated as a deferred form of Aid to Construction; mechanical treatment is initial inclusion in rate base, with removal from rate base as revenues are collected each year
- Same rate for all projects; time period varies by project based on economics
- Proposed at 20-30 cents/m3 for up to 10 years. Price will vary for each utility (Union modelling at 23 cents, Enbridge at 28 cents).
- Costs $450-500/residential customer per year, or max 1/3 of annual energy savings. Remaining energy savings (>$1,000/year) pay for average equipment conversion in 3-4 years
- Becomes a major contributor to economic shortfalls.
- Currently validating conversion value proposition for larger C/I customers

4. Municipal Tax Contribution Accounting Treatment

- Propose same accounting treatment as Expansion Surcharge
- Equivalent to incremental municipal taxes each year for minimum period equal to rate rider, extended if attachments delayed
- Puts municipal skin in the game, and mitigates urge to inflate attachment forecasts

Notional Funding Model

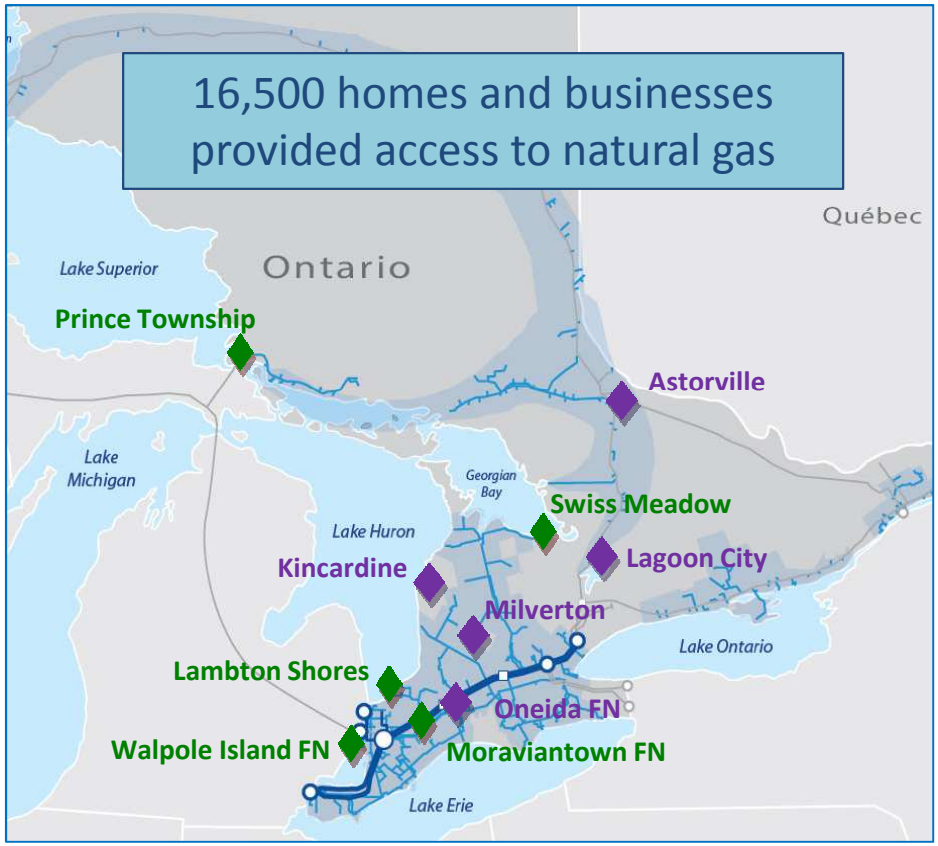
- Average per residential customer:

Gross Capital per customer	$14,000
Funding: Gas Distributor Investment	
Within current regulatory framework	$5,000
Incremental via relaxed regulatory PI requirements	$1,500
Incremental via expansion area customer surcharge	$2,000
Incremental via Municipal property tax rebate	$500
Remaining Gap: Province of Ontario contribution	$5,000

Regulatory Flexibility: Discussion

- Gap: How do we initiate a short term holistic review of proposals by OEB/stakeholders
  - Avoid lengthy EBO188 like proceeding (>2 years)
  - Ideally look for conclusions early 2015 (end Q1 latest)
- Forum and timeline are critical to ability to leverage Provincial funding in 2015

Union Gas Top 10* Potential Projects



- Lambton Shores and Kettle Point First Nation
- Prince Township (S.S. Marie)
- Swiss Meadow
- Walpole Island First Nation
- Moraviantown First Nation
- Lagoon City (Orillia)
- Milverton
- Oneida First Nation
- Astorville
- Kincardine/Tiverton/Paisley/Chesley

Project enabled through regulatory flexibility and municipal tax rebates

Project also requires Provincial grants/loans or other funding

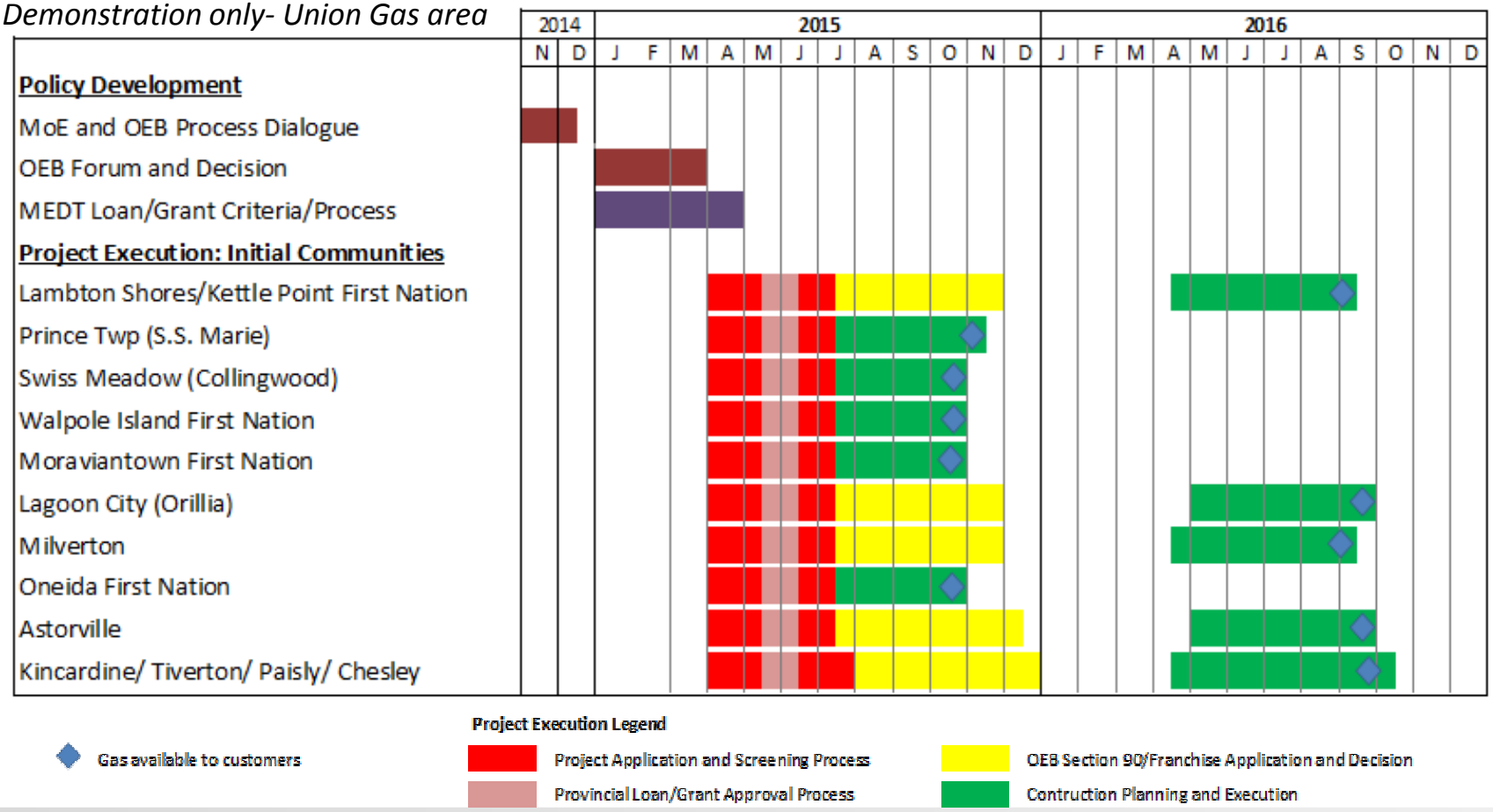
- *Based on community size and economic viability

Policy Development Timelines are Critical

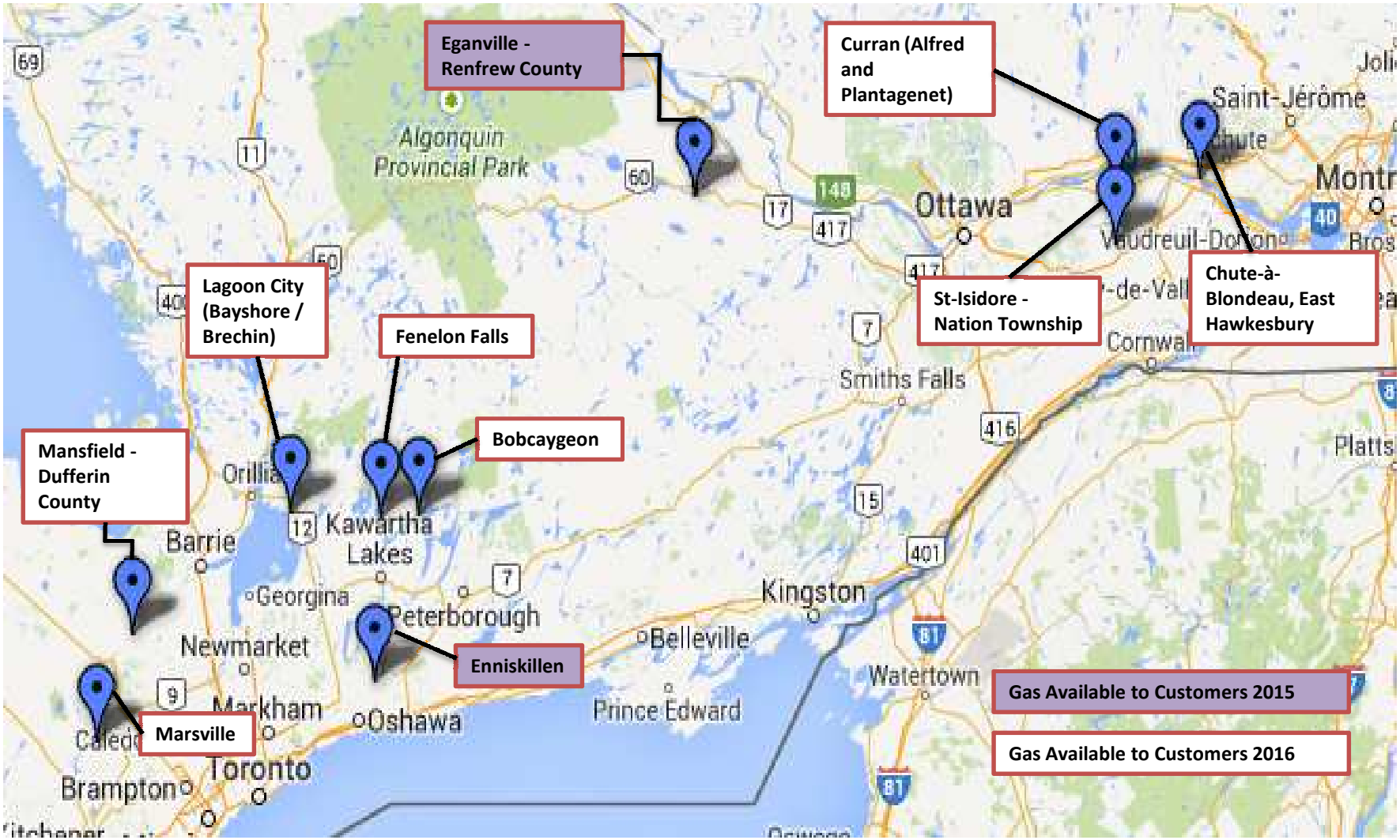
union gas
A Spectra Energy Company

To fully leverage Provincial funding and build a success story, require shovels in the ground in 2015

Demonstration only- Union Gas area



Enbridge Gas Distribution: Top 10 Potential Projects*



*Based on economic viability and that all required regulatory approvals are in place before the end of 2015

Provincial Grants and Loans

PRIMARY TARGET: Ministry of Economic Development

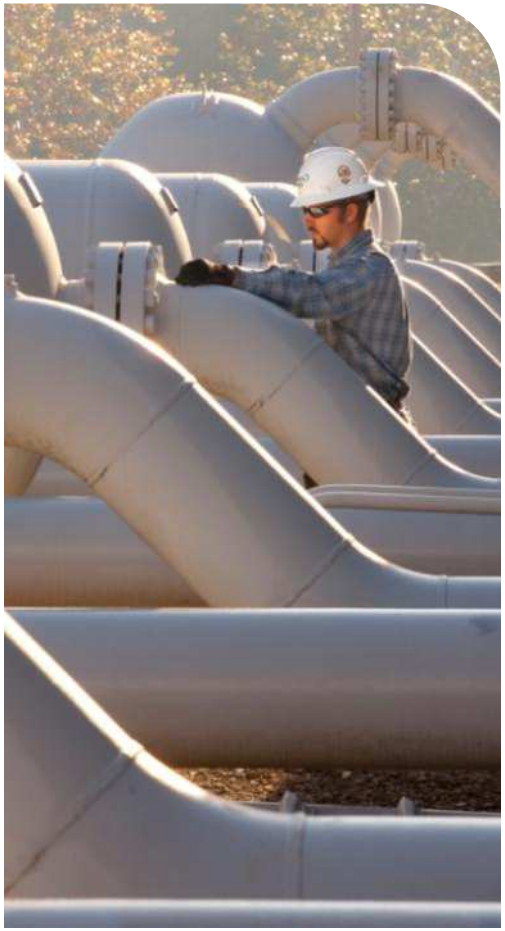
- Need is to immediately commence dialogue with key stakeholders to define:
  - Criteria for eligibility for both grants and interest free loans
  - Criteria to be applied in prioritizing potential projects
  - Specific factors to be considered in assessing economic development impacts
  - Development of the process to be utilized to access grants and loans
- Target timeframe is process and criteria defined prior to Provincial budget

Next Steps

- Define a process for holistic OEB review of barriers and enablers
- Engage Ministry of Economic Development and Trade to establish a joint working group to define criteria/process for Provincial financial support

uniongas

A Spectra Energy Company



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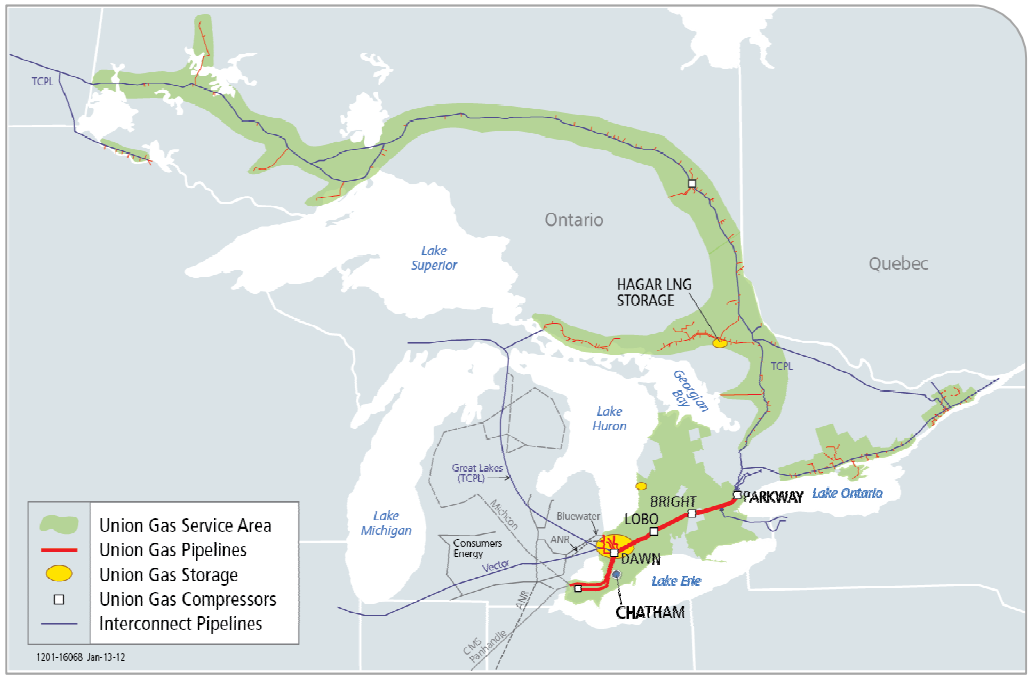

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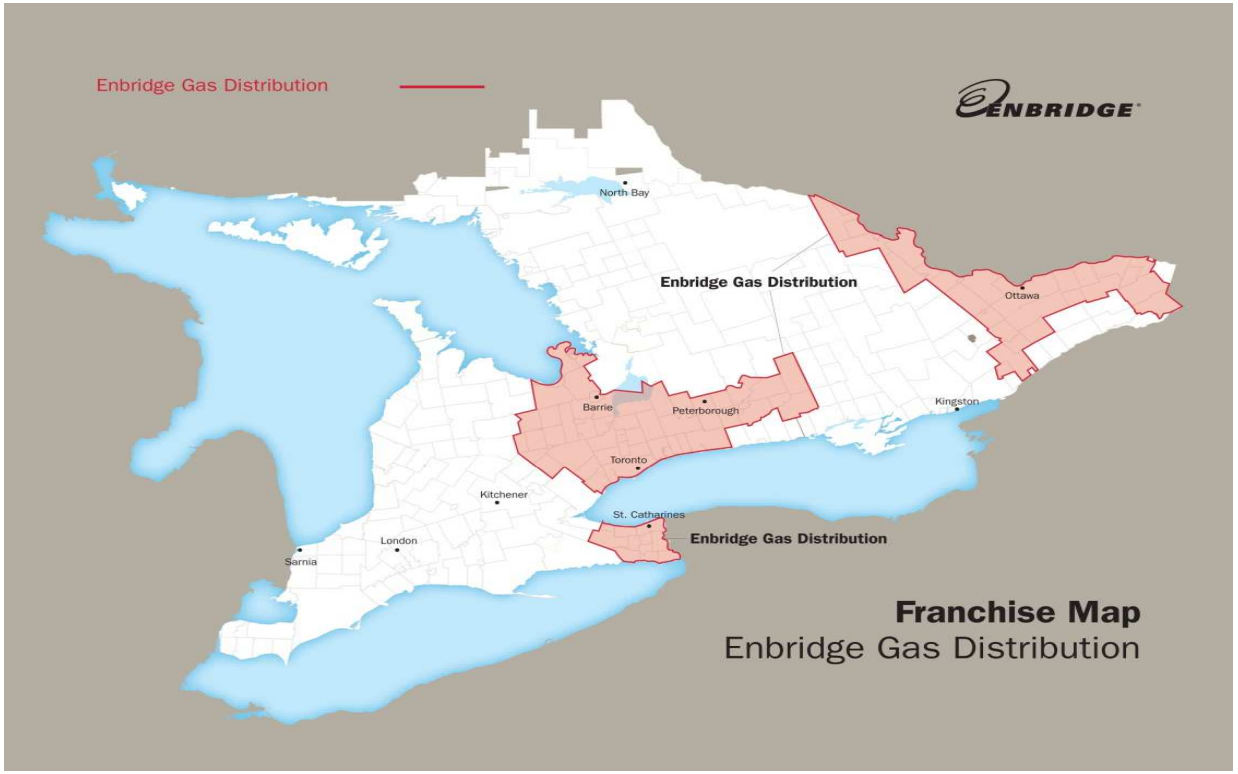

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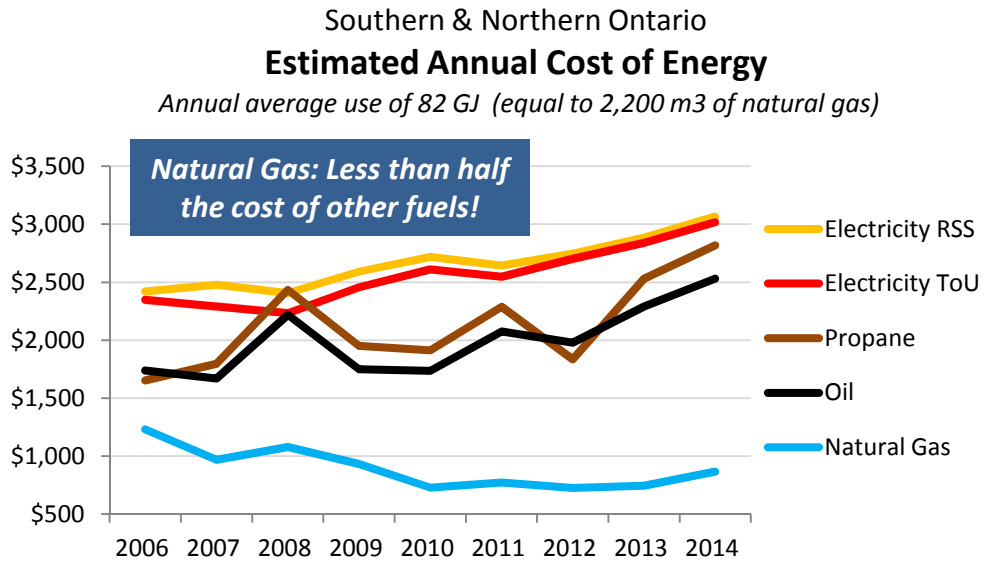

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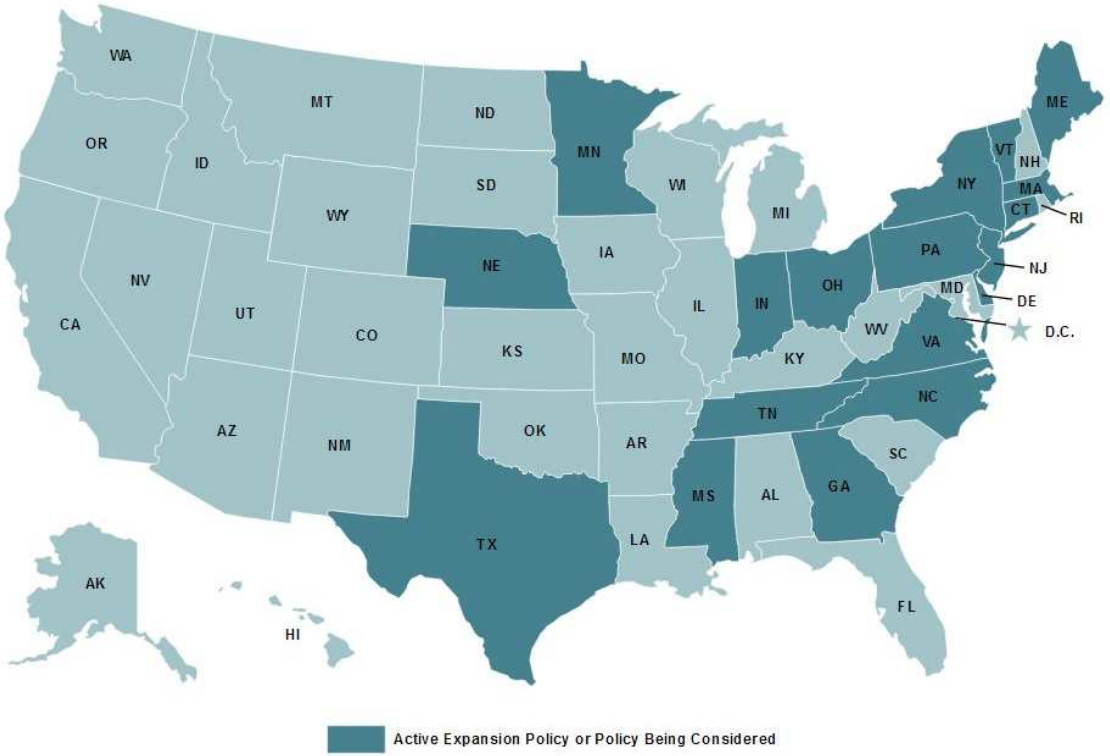

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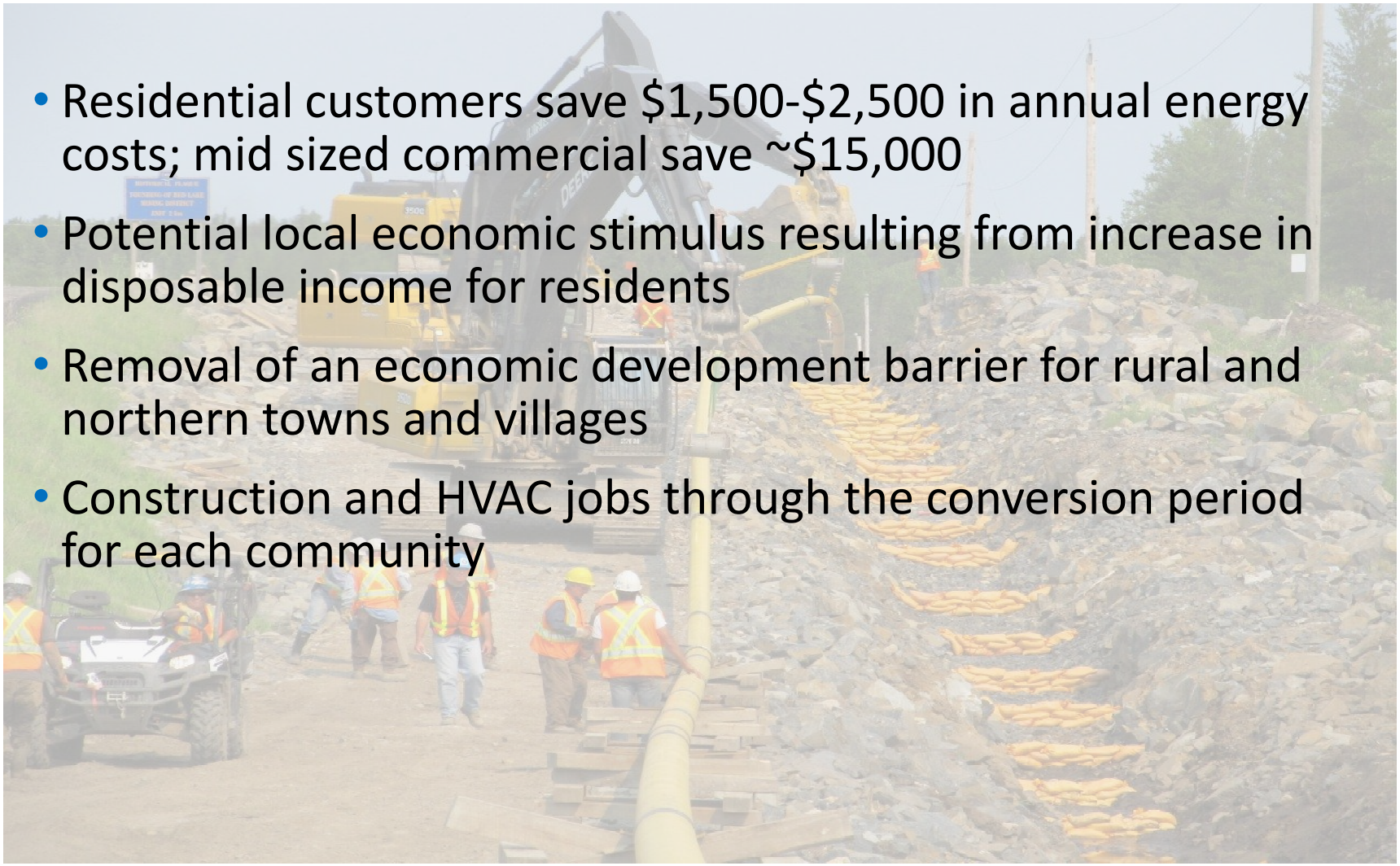
Potential Scale

- ~30 community projects >500 homes/businesses; ~100 with >100 homes/businesses
- Natural gas access potential for a population of up to 140,000

Barriers

- Economic Feasibility
  - ~30 km average from existing gas system
- Regulatory Flexibility
  - Very few communities meet minimum EBO188 economic feasibility standards
  - Prohibitive up-front contributions necessary

Benefits



- Residential customers save $1,500-$2,500 in annual energy costs; mid sized commercial save ~$15,000
- Potential local economic stimulus resulting from increase in disposable income for residents
- Removal of an economic development barrier for rural and northern towns and villages
- Construction and HVAC jobs through the conversion period for each community

Suggested Principles

- Each of the major beneficiaries of extended gas infrastructure contribute towards the cost:
  - Province
  - Municipalities/First Nations
  - Conversion Customers
  - Gas Utility
- Public policy position on “equal access” principle a key consideration
  - If cross subsidization from existing ratepayers contemplated, resulting long term rate impact should be limited
- Utility partners should not be exposed to additional financial risk related to the incremental capital investment

Community Expansion Enablers

- Direct Provincial financial support:
  - $30 million in economic development grants over 2 years
  - $200 million in interest free municipal loans over 2 years
- Regulatory Flexibility:
  - Remove barriers to significant incremental capital investment by utilities through IR term
  - Allow for new revenue tools to support customer contributions to economic feasibility funded from the economic benefits they receive each year
  - Increase flexibility in economic feasibility thresholds
- Customer contributions funded from the economic benefits they receive each year
- Municipal contributions:
  - At minimum neutralize property tax benefits for initial period
  - Additional economic contributions funded from Province (above)

Regulatory Flexibility Proposals

1. Capital Pass Through to Rates (Y Factor Eligibility)
   - Protects shareholder from impacts of low initial period project PI's during IR term
   - Few individual projects with net capital >$50M (Y factor), however, portfolio of projects highly likely to exceed this
2. Project Economic Feasibility: Project Minimum PI of 0.6, Investment Portfolio Minimum PI of 0.9
   - Combination allows for incremental capital spending (up to $60M/year at Union) within envelope; grant availability may limit this to some extent
   - Portfolio PI reduction allows for minimal level of capital investment cross subsidized by existing ratepayers (estimated rate impact $2/year/customer)

Regulatory Flexibility Proposals

3. Volumetric Rate Rider ("Expansion Surcharge") approval: Rate and Accounting Treatment

- Treated as a deferred form of Aid to Construction; mechanical treatment is initial inclusion in rate base, with removal from rate base as revenues are collected each year
- Same rate for all projects; time period varies by project based on economics
- Proposed at 20-30 cents/m3 for up to 10 years. Price will vary for each utility (Union modelling at 23 cents, Enbridge at 28 cents).
- Costs $450-500/residential customer per year, or max 1/3 of annual energy savings. Remaining energy savings (>$1,000/year) pay for average equipment conversion in 3-4 years
- Becomes a major contributor to economic shortfalls.
- Currently validating conversion value proposition for larger C/I customers

4. Municipal Tax Contribution Accounting Treatment

- Propose same accounting treatment as Expansion Surcharge
- Equivalent to incremental municipal taxes each year for minimum period equal to rate rider, extended if attachments delayed
- Puts municipal skin in the game, and mitigates urge to inflate attachment forecasts

Notional Funding Model

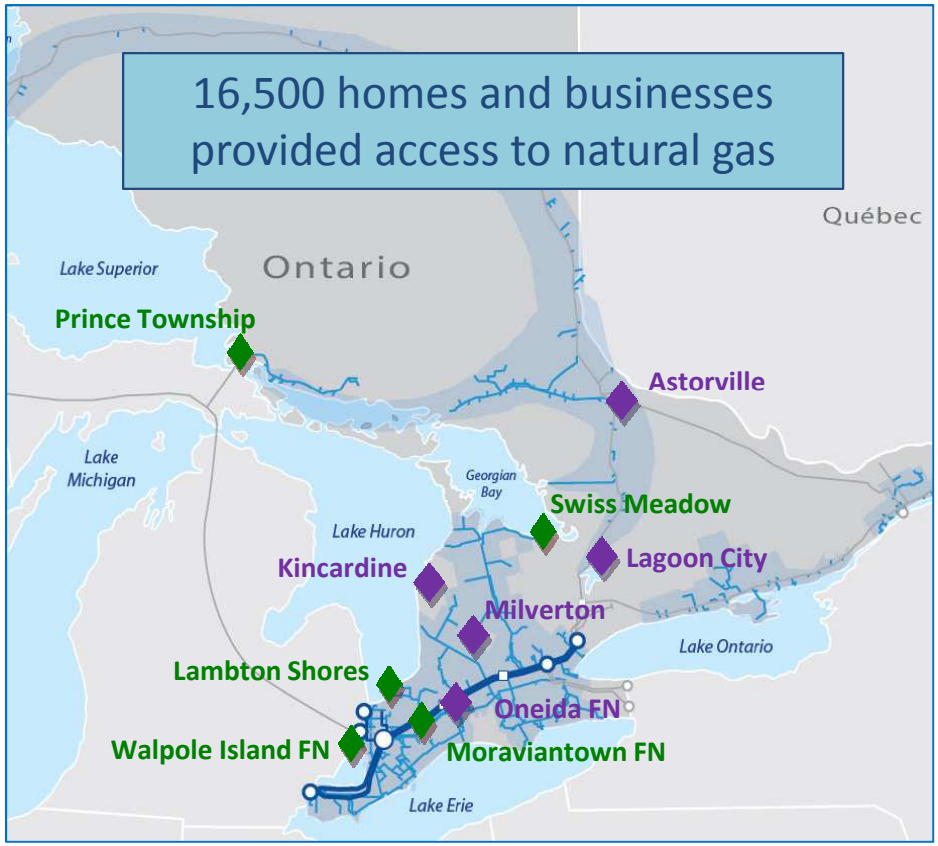
- Average per residential customer:

Gross Capital per customer	**$14,000**
Funding: Gas Distributor Investment	
Within current regulatory framework	$5,000
Incremental via relaxed regulatory PI requirements	$1,500
Incremental via expansion area customer surcharge	$2,000
Incremental via Municipal property tax rebate	$500
Remaining Gap: Province of Ontario contribution	$5,000

Regulatory Flexibility: Discussion

- Gap: How do we initiate a short term holistic review of proposals by OEB/stakeholders
  - Avoid lengthy EBO188 like proceeding (>2 years)
  - Ideally look for conclusions early 2015 (end Q1 latest)
- Forum and timeline are critical to ability to leverage Provincial funding in 2015

Union Gas Top 10* Potential Projects



Project enabled through regulatory flexibility and municipal tax rebates

Project also requires Provincial grants/loans or other funding

- Lambton Shores and Kettle Point First Nation
- Prince Township (S.S. Marie)
- Swiss Meadow
- Walpole Island First Nation
- Moraviantown First Nation
- Lagoon City (Orillia)
- Milverton
- Oneida First Nation
- Astorville
- Kincardine/Tiverton/Paisley/Chesley

- *Based on community size and economic viability

Policy Development Timelines are Critical

union gas
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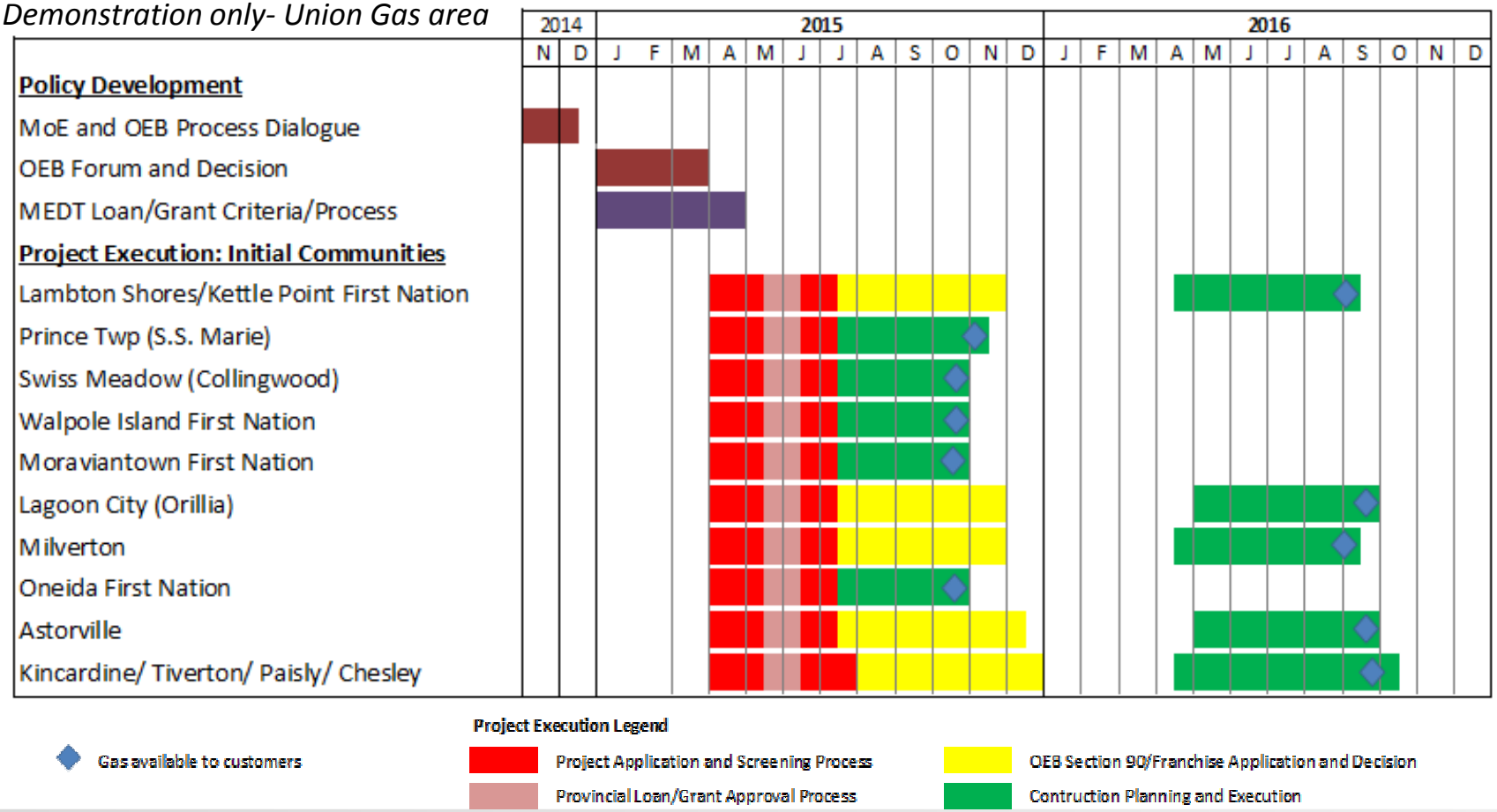
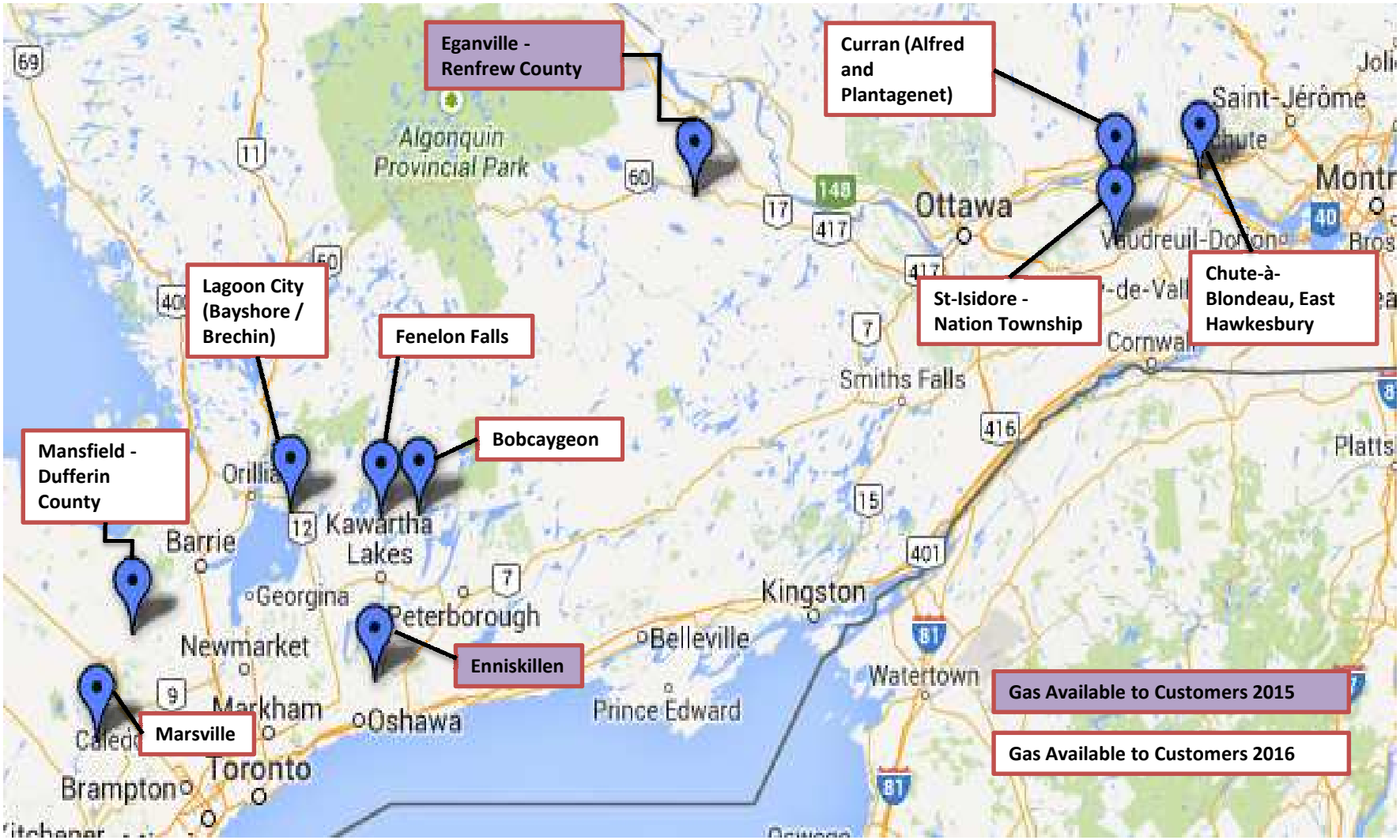
To fully leverage Provincial funding and build a success story, require shovels in the ground in 2015

Demonstration only- Union Gas area



Enbridge Gas Distribution: Top 10 Potential Projects*



*Based on economic viability and that all required regulatory approvals are in place before the end of 2015

Provincial Grants and Loans

PRIMARY TARGET: Ministry of Economic Development

- Need is to immediately commence dialogue with key stakeholders to define:
  - Criteria for eligibility for both grants and interest free loans
  - Criteria to be applied in prioritizing potential projects
  - Specific factors to be considered in assessing economic development impacts
  - Development of the process to be utilized to access grants and loans
- Target timeframe is process and criteria defined prior to Provincial budget

Next Steps

- Define a process for holistic OEB review of barriers and enablers
- Engage Ministry of Economic Development and Trade to establish a joint working group to define criteria/process for Provincial financial support

uniongas

A Spectra Energy Company

Okrucky, Jeff

From: Hodgins, Jeff
Sent: November 14, 2014 3:49 PM
To: magdalena.gronowska@ontario.ca
Cc: sunita.chander@ontario.ca; Doug.MacCallum@ontario.ca; Anna.DiMisa@ontario.ca; Michael.Beare@ontario.ca; Ungerman, Paul; Ripley, Chris; Norm Ryckman; steve.mcgill@enbridge.com; Okrucky, Jeff
Subject: Gas Expansion Follow-Up Questions
Attachments: Community Expansion Process.docx

Hi Magdalena….

The other follow up from our discussion last week, was to outline the typical process to extend natural gas to a new community.

Attached is a summarized process with some approximate timelines.

Please let me know if you have any questions.

thanks

Jeff Hodgins

From: Okrucky, Jeff
Sent: November-12-14 8:41 AM
To: magdalena.gronowska@ontario.ca
Cc: Chander, Sunita (ENERGY); Doug.MacCallum@ontario.ca; Anna.DiMisa@ontario.ca; Michael.Beare@ontario.ca; Ungerman, Paul; Hodgins, Jeff; Ripley, Chris; Norm Ryckman (norm.ryckman@enbridge.com); steve.mcgill@enbridge.com
Subject: Gas Expansion Follow-Up Questions

Hi Magdelena,

During our discussion last week you asked for some detail on our estimated equipment conversion costs for residential customers. In response, I've attached details for the estimates we've been using. The existing equipment penetration rates which underpin the averages come from a survey of non-gas customers in postal FSA's where Union's gas system currently exists, which was conducted several years ago.

Please feel free to reach out if you have any further questions.

Best Regards,

Jeff Okrucky
Director, Distribution Marketing

Union Gas Limited
50 Keil Drive North

Chatham, ON N7M 5M1

519 436-4681 Direct
800 571-8446 ext 5004681
519 401-6490 mobile

Community Expansion Process

Process Step	Description	Approx Time
1. Preliminary Assessment / Economics	• Conduct community census *(i.e. house / business count*) + estimated annual / peak natural gas usage • Estimate pipeline size / lengths / costs • Develop high level forecast + economics + aid / customer	**3-4 months**
2. Initial Municipal Discussion (CEO/Mayor)	• Share Preliminary Assessment Information + franchise information with Mayor / CEO • Gain support of project moving	
3. Market Survey	• Conduct Market Survey (*mail/telephone/both*) to gauge support of project, test aid thresholds, and collect market info *(i.e. existing fuel type)*	
4. Detailed Economics	• Verify forecast info *(based on mkt survey)* • Verify pipeline lengths/size, pressure and facilities requirements • Meet Commercial/Industrial customers *(as required)* to verify load requirements etc. • Detailed Costing (with Pipeline Construction Contractor) • Test project area scenarios to establish limits of pipelines / service areas • Recalculate economics with updated information	
5. Present Municipal Franchise Agreement *(if necessary)*	• Send Municipal Franchise Agreement / Certificate of Public Convenience to municipal council • Meet with council to answer questions and garner support *(letter*) of the Agreement and the project moving forward with an application to the OEB *(if necessary)*	
6. Prepare OEB Filing *(if necessary)*	• Prepare OEB filing for project / franchise approval *(if necessary*) and file with OEB	**4-5 months**
7. OEB Project / Franchise Hearing	• Written or Oral Hearing with Interveners to discuss / critic OEB franchise / project application	
8. OEB Decision	• Decision rendered to proceed with project	
9. Final Sign Off of Franchise Agreement	• Send to Municipal Council for sign off / approval	
10. Construction Preparations	• Detail pipeline running lines with Road Supervisors/Pipeline contractors • Establish partnerships with local companies where possible and utilize local labor resources • Confirm Capital Budget spend • Order materials	**3-6 months**
11. Community Openhouse / Communications	• Hold Community Openhouse to outline project plans, answer questions and generate support / service applications • Set up local office / store front location • Develop Project Sales / Marketing Plans • Organize and train industry stakeholders *(i.e. local HVACs)*	
12. Arrange Internal Administration / Processes	• Set up internal mapping and customer information systems for new project area • Internal communications/FAQs to Call Centers / Meter Reading / Operations etc	
13. Construction / Service Installations	• Complete project / distribution pipeline + stations construction • Collect customer applications and install services + meter activation	
14. Project Closure	• Project area becomes part of regular new business	

Okrucky, Jeff

From: Okrucky, Jeff
Sent: November 12, 2014 8:41 AM
To: 'magdalena.gronowska@ontario.ca'
Cc: 'Chander, Sunita (ENERGY)'; 'Doug.MacCallum@ontario.ca'; 'Anna.DiMisa@ontario.ca'; 'Michael.Beare@ontario.ca'; Ungerman, Paul; Hodgins, Jeff; Ripley, Chris; Norm Ryckman (norm.ryckman@enbridge.com); 'steve.mcgill@enbridge.com'
Subject: Gas Expansion Follow-Up Questions
Attachments: 20141112 MoE Svgs and Conv Cost Estimates.docx

Hi Magdelena,

During our discussion last week you asked for some detail on our estimated equipment conversion costs for residential customers. In response, I've attached details for the estimates we've been using. The existing equipment penetration rates which underpin the averages come from a survey of non-gas customers in postal FSA's where Union's gas system currently exists, which was conducted several years ago.

Please feel free to reach out if you have any further questions.

Best Regards,

Jeff Okrucky
Director, Distribution Marketing

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Annual Residential Energy Savings Estimates

2014 Annual Savings at 2,200 m3 NAC (based on Apr 2014 QRAM)	Penetration	South	North
oil	35%	$1,678	$1,804
wood	28%	$813	$874
elect	22%	$1,994	$1,681
propane	15%	$1,997	$1,997
Wtd Avg Svgs at 2013 NAC		$1,553	$1,545

* wood pricing based on $271 svgs/yr for 500 sq ft rm htg 330 hrs/yr, X 3 for house htg

Residential Home Equipment Conversion Cost Estimates

Heating Equipment Conversion Costs	Overall Dist	Estimated Conversion Cost	Notes
Oil Boiler	32%	$4,200	$4000 + $200 to remove oil tank
Oil Forced Air	3%	$4,200	$4000 + $200 to remove oil tank
Propane Boiler	1%	$4,000	
Propane Forced Air	12%	$1,525	Assume 75% can be converted for $700, rest replaced at $4000
Propane space heater	2%	$3,500	Assume can be replaced with a fireplace
Electric baseboard	6%	$11,000	
Electric Forced air	12%	$4,000	
Electric heat pump/hydronic	4%	$4,000	
Wood (assume wood stove)	28%	$3,500	Assume can be replaced with a fireplace
Weighted average equipment conversion cost	**100%**	**$4,068**	

Okrucky, Jeff

From: Okrucky, Jeff
Sent: October 30, 2014 2:27 PM
To: 'Michael.Beare@ontario.ca'
Cc: 'Chander, Sunita (ENERGY)'; 'Doug.MacCallum@ontario.ca'; 'Anna.DiMisa@ontario.ca'; Ungerman, Paul; Hodgins, Jeff; Ripley, Chris; Norm Ryckman (norm.ryckman@enbridge.com); 'steve.mcgill@enbridge.com'
Subject: FW: Gas expansion discussion follow-up questions
Attachments: 20141030 MoE follow up.pdf

Hi Michael,

I've attached responses to the questions you posed a couple of weeks ago. The responses are all from a Union Gas portfolio perspective. I expect that we can address any further clarification when we meet next week.

Best Regards,

Jeff Okrucky
Director, Distribution Marketing

Union Gas Limited
50 Keil Drive North
Chatham, ON N7M 5M1

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519 401-6490 mobile

From: Okrucky, Jeff
Sent: October 17, 2014 8:26 AM
To: 'Chander, Sunita (ENERGY)'
Cc: Ungerman, Paul
Subject: RE: Gas expansion discussion follow-up questions

Thanks Sunita. Paul had forwarded the note and mentioned we were going to schedule a follow up, but until now I don't think either of us had noticed the questions below his signature. We'll have a look at them shortly.

From: Chander, Sunita (ENERGY) [mailto:Sunita.Chander@ontario.ca]
Sent: October 16, 2014 1:34 PM
To: Okrucky, Jeff
Subject: FW: Gas expansion discussion follow-up questions

Hi Jeff – as I was reading the email you had sent over on Oct 10th I realized that maybe you hadn't seen the questions sent below…we're hoping to get a few more details on the PI, with focus on number of customers and projects…..please take a look below and let me know your thoughts.

Thanks!
-Sunita

Sunita Chander
Manager, Regulatory and Agency Policy

Strategic, Network and Agency Policy Division
Ministry of Energy
6th Floor | 77 Grenville Street
Toronto | Ontario
M7A 2C1
Tel.:(416) 326-5752
Email: Sunita.Chander@ontario.ca

From: Beare, Michael (ENERGY)
Sent: October 9, 2014 11:03 AM
To: Ungerman, Paul
Cc: MacCallum, Doug (ENERGY); Di Misa, Anna (ENERGY); Chander, Sunita (ENERGY)
Subject: Gas expansion discussion follow-up questions

Hi Paul,

Thank you for coming in last week to chat about natural gas expansion.

We have a few follow-up questions below we would like to ask.

We would also like to know if Union would be available to meet again with staff to provide a 101 walk-through of all of the steps the utility would need to take when expanding natural gas service to new customers. If possible, it would be helpful to provide the steps the customers/ municipality would also need to take. A delineation between expansion projects that do and do not require a customer contribution would be appreciated.

Thanks,

Michael

Michael Beare
Senior Policy Advisor
Ministry of Energy
Strategic Network and Agency Policy Division
Delivery and Agency Policy Branch
Delivery and Consumer Policy Section
77 Grenville St, 6th Floor
Toronto, ON M7A 2C1
Tel: 416-327-5313
E-mail: michael.beare@ontario.ca

1. To follow-up on your suggestion that some flexibility in the rolling portfolio PI (EBO-188 requirement) may help facilitate expansion, could you provide Ministry of Energy staff with the quarterly PI of the 12-month rolling distribution system expansion portfolio for the last 3 years? To also aid in analysis, could you also provide the associated NPV of costs and revenues so we have a sense of the size of the portfolio and how it varies over time?

2. Is there any preliminary analysis (e.g., part of your tabletop analysis) of individual projects that may be helped by PI flexibility (e.g., NPV of project costs and revenue, individual project PI,

impact on current 12-month rolling expansion portfolio if included). If so, could you provide this information (it being understood this is an estimate only and costs/revenues may change).

3. Using the same project examples, is there any analysis of how the proposed new customer surcharge would affect PI? Could you confirm that the proposed new customer surcharge would be treated as a customer contribution, therefore, not included in ratebase and increasing the PI of the project. Do you have any sensitivity analysis around the level of surcharge vs the need for PI flexibility for any specific projects you have been looking at (understanding the costs are estimates only)?

    a. Based on a 23 cent per cubic meter volumetric charge, the average residential customer would contribute approx. 4K over 8 years How many communities, from the list Union provided us previously, does Union think could be "unlocked" by implementing this type of a customer surcharge? Can they provide any additional information/analysis on how they landed on 23 cents?

Community Expansion: Ministry of Energy Follow-Up Questions

1. To follow-up on your suggestion that some flexibility in the rolling portfolio PI (EBO-188 requirement) may help facilitate expansion, could you provide Ministry of Energy staff with the quarterly PI of the 12-month rolling distribution system expansion portfolio for the last 3 years? To also aid in analysis, could you also provide the associated NPV of costs and revenues so we have a sense of the size of the portfolio and how it varies over time?

There are two separate perspectives that we look at the broader economic impact of new business projects from; an Investment Portfolio (IP) perspective, and the Rolling Project Portfolio (RPP) perspective. The IP includes all budgeted mains and attachments for a given budget year only, along with the associated revenue streams. In contrast, the RPP includes only projects completed in the most recent 12 months where main is required, but includes costs and revenue streams for all future customers forecasted for the projects. Our current minimum thresholds are PI's of 0.8 for a specific project (by exception approval only), and portfolio PI's of 1.1 and 1.0 for the IP and RPP, respectively.

Below in Table 1 is a summary of Union's recent Rolling PI results. We have included cash inflows and outflows, since looking at the NPV in isolation would not provide a sense for the total size of the portfolio.

Table 1

Union Gas Rolling Project Portfolio Summary

Rolling Period	Union South				Union North				Corporate			
	Inflow	Outflow	PI	NPV	Inflow	Outflow	PI	NPV	Inflow	Outflow	PI	NPV
2012 Q1 Apr 2011 to Mar 2012	$31.4	$17.1	1.84	$14.3	$14.4	$11.7	1.23	$2.6	$45.8	$28.8	1.59	$17.0
Q2 Jul 2011 to Jun 2012	$30.3	$17.9	1.70	$12.4	$8.6	$5.6	1.53	$3.0	$38.9	$23.5	1.66	$15.4
Q3 Oct 2011 to Sept 2012	$35.5	$21.3	1.67	$14.3	$10.2	$6.5	1.58	$3.8	$45.8	$27.7	1.65	$18.1
Q4 Jan 2012 to Dec 2012	$33.5	$21.8	1.54	$11.7	$16.9	$14.3	1.18	$2.6	$50.4	$36.1	1.40	$14.3
2013 Q1 Apr 2012 to Mar 2013	$36.1	$23.0	1.57	$13.1	$15.8	$13.6	1.16	$2.2	$51.9	$36.6	1.42	$15.3
Q2 Jul 2012 to Jun 2013	$33.8	$22.5	1.50	$11.3	$15.1	$13.3	1.14	$1.8	$48.9	$35.8	1.37	$13.2
Q3 Oct 2012 to Sept 2013	$33.0	$22.1	1.49	$10.9	$16.8	$13.9	1.21	$2.9	$49.8	$36.0	1.38	$13.8
Q4 Jan 2013 to Dec 2013	$32.8	$21.4	1.53	$11.3	$13.4	$8.7	1.54	$4.7	$46.2	$30.1	1.53	$16.0
2014 Q1 Apr 2013 to Mar 2014	$26.2	$18.2	1.44	$8.0	$12.9	$8.4	1.53	$4.5	$39.2	$26.7	1.47	$12.5
Q2 Jul 2013 to Jun 2014	$26.1	$18.6	1.40	$7.5	$14.1	$9.0	1.57	$5.1	$40.3	$27.6	1.46	$12.6
Average	$31.9	$20.4	1.56	$11.5	$13.8	$10.5	1.32	$3.3	$45.7	$30.9	1.48	$14.8

All $ in milllions

Considering minimum PI thresholds from only a Rolling Project Portfolio (RPP) perspective, however, may be somewhat misleading. The Investment Portfolio (IP) requirements from EBO188 are more restrictive than RPP requirements, since we manage the IP to a minimum PI threshold of 1.1. A snapshot of Union's IP for the last two years is provided in table 2.

Table 2

Union Gas Investment Portfolio

Year	Union South				Union North				Corporate			
	Inflow	Outflow	PI	NPV	Inflow	Outflow	PI	NPV	Inflow	Outflow	PI	NPV
2013	$41.2	$36.0	1.14	$5.2	$22.1	$14.2	1.56	$7.9	$63.4	$50.2	1.26	$13.1
2014	$41.2	$34.0	1.21	$7.1	$29.3	$21.9	1.34	$7.4	$70.5	$55.9	1.26	$14.6
Average	$41.2	$35.0	1.18	$6.2	$25.7	$18.0	1.43	$7.7	$66.9	$53.1	1.26	$13.8

All $ in milllions

Community Expansion: Ministry of Energy Follow-Up Questions

Based on the average IP values above, a simple analysis of impacts of various incremental capital investments at differing PI's was conducted, to assess the sensitivity of the portfolios. The outcomes of this analysis are provided in table 3.

Table 3

Union Gas Investment Portfolio Scenarios

Scenario		Union South				Union North				Corporate			
		Inflow	Outflow	PI	NPV	Inflow	Outflow	PI	NPV	Inflow	Outflow	PI	NPV
Base Portfolio (2013-14)		$41.2	$35.0	1.18	$6.2	$25.7	$18.0	1.43	$7.7	$66.9	$53.1	1.26	$13.8
A	Incremental Capital	$7.2	$9.0	0.80	-$1.8	$16.0	$20.0	0.80	-$4.0	$23.2	$29.0	0.80	-$5.8
	Resulting Portfolio	$48.4	$44.0	1.10	$4.4	$41.7	$38.0	1.10	$3.7	$90.1	$82.1	1.10	$8.0
B	Incremental Capital	$3.0	$5.0	**0.60**	-$2.0	$7.2	$12.0	**0.60**	-$4.8	$10.2	$17.0	**0.60**	-$6.8
	Resulting Portfolio	$44.2	$40.0	1.10	$4.2	$32.9	$30.0	1.10	$2.9	$77.1	$70.1	1.10	$7.0
C	Incremental Capital	$9.0	$15.0	0.60	-$6.0	$11.4	$19.0	0.60	-$7.6	$20.4	$34.0	0.60	-$13.6
	Resulting Portfolio	$50.2	$50.0	**1.00**	$0.2	$37.1	$37.0	**1.00**	$0.1	$87.3	$87.1	**1.00**	$0.2
D	Incremental Capital	$19.2	$32.0	0.60	-$12.8	$18.6	$31.0	0.60	-$12.4	$37.8	$63.0	0.60	-$25.2
	Resulting Portfolio	$60.4	$67.0	**0.90**	-$6.6	$44.3	$49.0	**0.90**	-$4.7	$104.7	$116.1	**0.90**	-$11.4
All incremental capital treated as outflows to simplify analysis													

Several key points can be gleaned from this scenario analysis, and related observations are provided for each:

- Union could invest an incremental $29M per year at the current minimum PI thresholds (Scenario A) while maintaining the required minimum portfolio PI. However, Union has not identified any projects that can meet this minimum threshold without financial contributions (aid).
- In Scenario B, reducing the minimum project PI's to 0.6 without adjusting the minimum portfolio thresholds would limit the incremental capital to $17M per year, as a result of the reduced project PI's restricting the incremental capital. However, this change would allow for $6.8M each year to be directed towards improving economic feasibility of the identified projects.
- In contrast, in Scenario D, reducing minimum PI thresholds to 0.6 at the project level and 0.9 at the portfolio levels, would increase the incremental capital that could be invested to $63M each year and allow for $25.2M/year to be directed towards improving the economic feasibility of the projects.
- Generally the difference in the NPV of the incremental capital invested between Scenario D and B, which is a maximum of $18.4M per year, also represents the maximum level of cross subsidization from existing customers towards the expansion effort. Spread across all customers, this represents less than $2 per residential customer each year in worst case rate increases to support the additional revenue requirement.

The potential level of incremental capital results in a significant barrier for utility shareholders given that we are in an Incentive Regulation framework with no opportunity for the investment to be added to rate base over a 5 year period. For this reason Union has suggested that a capital pass-through with respect to the incentive regulation framework will be essential to the

utility being willing to commit incremental capital to expansion that was not anticipated at the time the IR framework was developed.

We are not suggesting that increased flexibility would necessarily unleash the maximum level of incremental investment represented in the above analysis. Other major considerations that will serve to temper the level of investment to some extent include availability of an approved expansion customer surcharge, the level of provincial financial support (grants and loans) available, the economic feasibility of the potential projects, and utility construction capacity.

It should be noted that the positive impact of reduced minimum portfolio PI thresholds would be a contributor to project feasibility that only established gas distributors, with significant portfolio values, could provide with minimal rate impact to existing customers.

2. Is there any preliminary analysis (e.g., part of your tabletop analysis) of individual projects that may be helped by PI flexibility (e.g., NPV of project costs and revenue, individual project PI, impact on current 12-month rolling expansion portfolio if included). If so, could you provide this information (it being understood this is an estimate only and costs/revenues may change).

Specific results of discounted cash flow analysis for several example projects, including Lambton Shores, Milverton, and Astorville are provided in table 4. All are based on table top costing completed last winter. Figures should be considered point in time estimates that could change significantly. The most critical factor that could cause a significant change in the estimates is existing pipeline system supply capacity, which could change with the incidental addition of one new large customer attaching at any point in that supply system.

Table 4: Example Projects

	Lambton Shores and Kettle Point First Nation	**Milverton, Wartburg, Rostock**	**Astorville**
Location	SW Ontario, east of Sarnia	SW Ontario, NW of Stratford	N Ontario, SE of North Bay
Maximum Potential customers	1,620	1,082	467
Gross Capital Required	$4.63M	$4.85M	$3.23M
Unaided PI	0.47	0.34	0.32
Unaided Project NPV	-$2.42M	-$2.84M	-$2.16M
Aid required for 1.0 PI	$2.82M	$3.44M	$2.52M
Aid required for 0.8 PI	$2.28M	$3.17M	$2.31M
Aid required for 0.6 PI	$1.28M	$2.63M	$1.93M
Potential expansion surcharge contribution	$1.23M	$1.61M	$0.35M
Potential Muni Tax rebate contribution	$0.05M	$0.31M	$0.21M
Remaining Aid Gap (at 0.6 PI)	$0*	$0.71M**	$1.37M**

**Project would be viable without the need for Provincial financial support*

*** Project would require additional funding from Province, Municipality or other parties*

Community Expansion: Ministry of Energy Follow-Up Questions

Assuming that any required aid to construction is funded, adding Lambton Shores and Milverton, at PI levels of 0.6, to the average base level Union South portfolio results in the Investment Portfolio PI dropping from 1.18 to 1.10. In similar fashion, adding Astorville to the Union North portfolio would result in the portfolio PI dropping from 1.43 to 1.37.

These three projects represent gross capital expenditures of $12.7M. Excluding aid required at the 0.6 PI level, the net capital required is $6.9M. Assuming the remaining aid gap of $2.1M was entirely funded from Provincial grants, and annual grant limits of $15M, the net capital that would exhaust grant availability each year could be as high as $50M. We recognize that the selected example projects are among the more favourable from an economic viability perspective; grants required for other projects are likely to be more expensive, so this estimate would be skewed upward to some extent. However, suggesting that the level of incremental net capital devoted to expansion would be in the range of $30 million per year would appear to be a realistic estimate. This level of spending would very likely result in portfolio PI's below 1.0; hence the request for relief on the minimum threshold.

3. Using the same project examples, is there any analysis of how the proposed new customer surcharge would affect PI? Could you confirm that the proposed new customer surcharge would be treated as a customer contribution, therefore, not included in ratebase and increasing the PI of the project. Do you have any sensitivity analysis around the level of surcharge vs the need for PI flexibility for any specific projects you have been looking at (understanding the costs are estimates only)?

    a. Based on a 23 cent per cubic meter volumetric charge, the average residential customer would contribute approx. 4K over 8 years How many communities, from the list Union provided us previously, does Union think could be "unlocked" by implementing this type of a customer surcharge? Can they provide any additional information/analysis on how they landed on 23 cents?

The surcharge amount would be validated through OEB review/approval for since it constitutes a new rate, and it may vary from one utility to another.

We can confirm that our intent would be to treat the surcharge as a contribution in aid of construction. Once it's been paid it would not be included in rate base. Mechanically, we would expect to include it in rate base initially, but to reduce rate base by the amount of surcharge collected each year. This would ensure utility risk is not increased. Application of the surcharge would improve project PI's, since the DCF analysis would incorporate the additional capital contribution.

Our proposal is that the surcharge amount would remain the same for every project. In other words every new Union Gas expansion customer in communities where a surcharge is necessary would pay 23 cents per m^3 on each bill. However, the time period for which it is collected would vary by project or community, based on the total amount necessary to get the specific project to a PI of 0.6. We suggest the time periods for specific projects would typically range between 5 and 10 years. In other words, the period could be 6 years for one project and

Community Expansion: Ministry of Energy Follow-Up Questions

8 for another. The surcharge would be applied to every monthly customer bill in a project area from the time the project goes into service, until the fixed time period for the specific project expires. Once the time period expires, the surcharge is terminated for every customer connected to the project. If customers connect to the system more quickly than forecasted, the surcharge period would be terminated earlier.

Based on Union's table top analysis of potential expansion projects, in isolation the volumetric surcharge of 23 cents per m^3 place would only allow one project to be serviced without some form of additional economic support. If the surcharge is combined with reduced minimum PI thresholds of 0.6 at the project level and 0.9 at the portfolio level, another 4 communities become feasible without any other economic support. Additional aid, such as Provincial grants, loans, or other direct contributions, are required to make all other identified potential projects feasible.

The value of 23 cents is based on an analysis of average annual energy savings that would allow for residential customer equipment conversion costs to be fully offset by cumulative energy savings within 3-4 years. For a residential customer the surcharge would represent a maximum of 33% of annual energy savings. More specifically, the surcharge would cost $450-$500 per year, in comparison to estimated annual energy cost savings of over $1,500. Union believes that the residual savings of over $1,000 each year still provide for a very compelling value proposition. On a simple pay-back basis, the residual savings can be compared to average residential equipment conversion costs of about $3,800, based on estimated current equipment type distribution in non-gas-serviced areas.

Union is currently assessing the value proposition of the 23 cent surcharge for larger commercial and industrial customers to ensure reasonable conversion pay-back periods are achievable.

The value of the contribution to project economics resulting from the surcharge is affected by a number of factors, including how quickly customers connect to the system, tax impact of the additional revenue stream, and discounting at weighted average cost of capital.

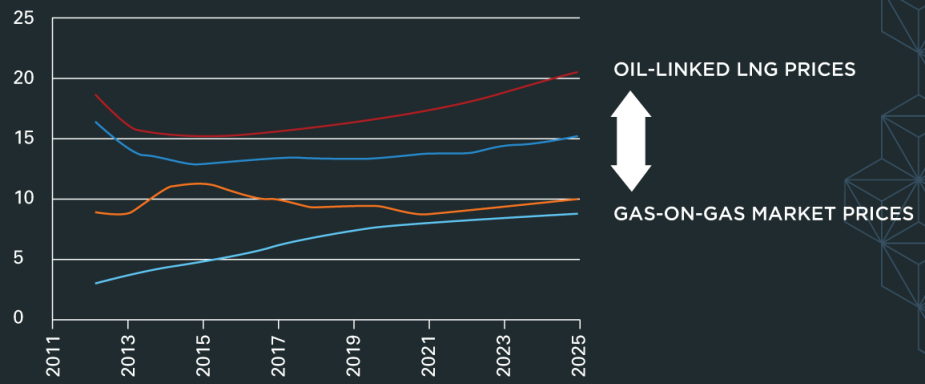
ONTARIO'S ECONOMIC RENAISSANCE
FUELLED BY NATURAL GAS

PRESENTATION TO: PARTY NAME HERE

uniongas
A Spectra Energy Company

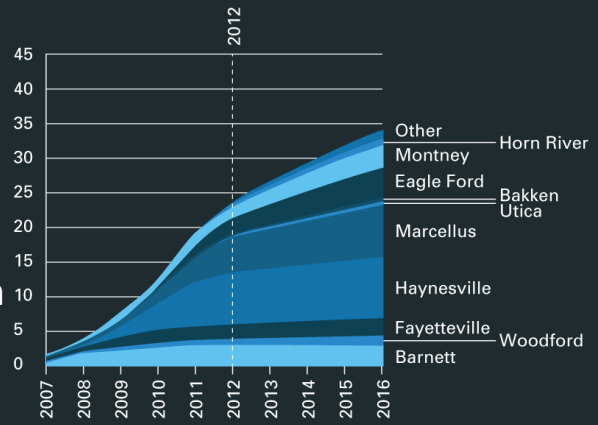
AFFORDABLE NATURAL GAS PRICES HAVE CREATED A COMPETITIVE ADVANTAGE FOR NORTH AMERICA

North America has and will continue to have the world's lowest natural gas prices…

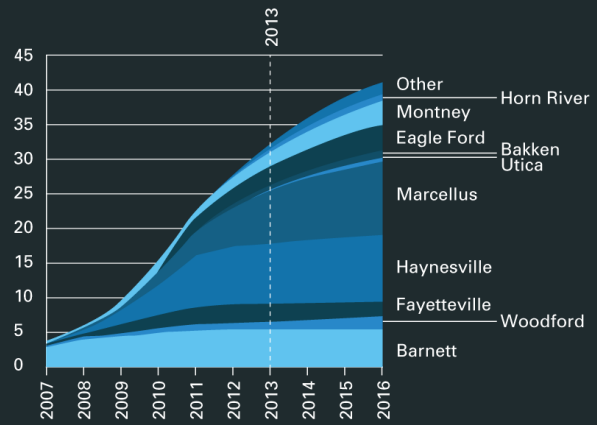


due to shale gas supplies that continue to increase faster than predicted.

2012 View (Bcf/d)



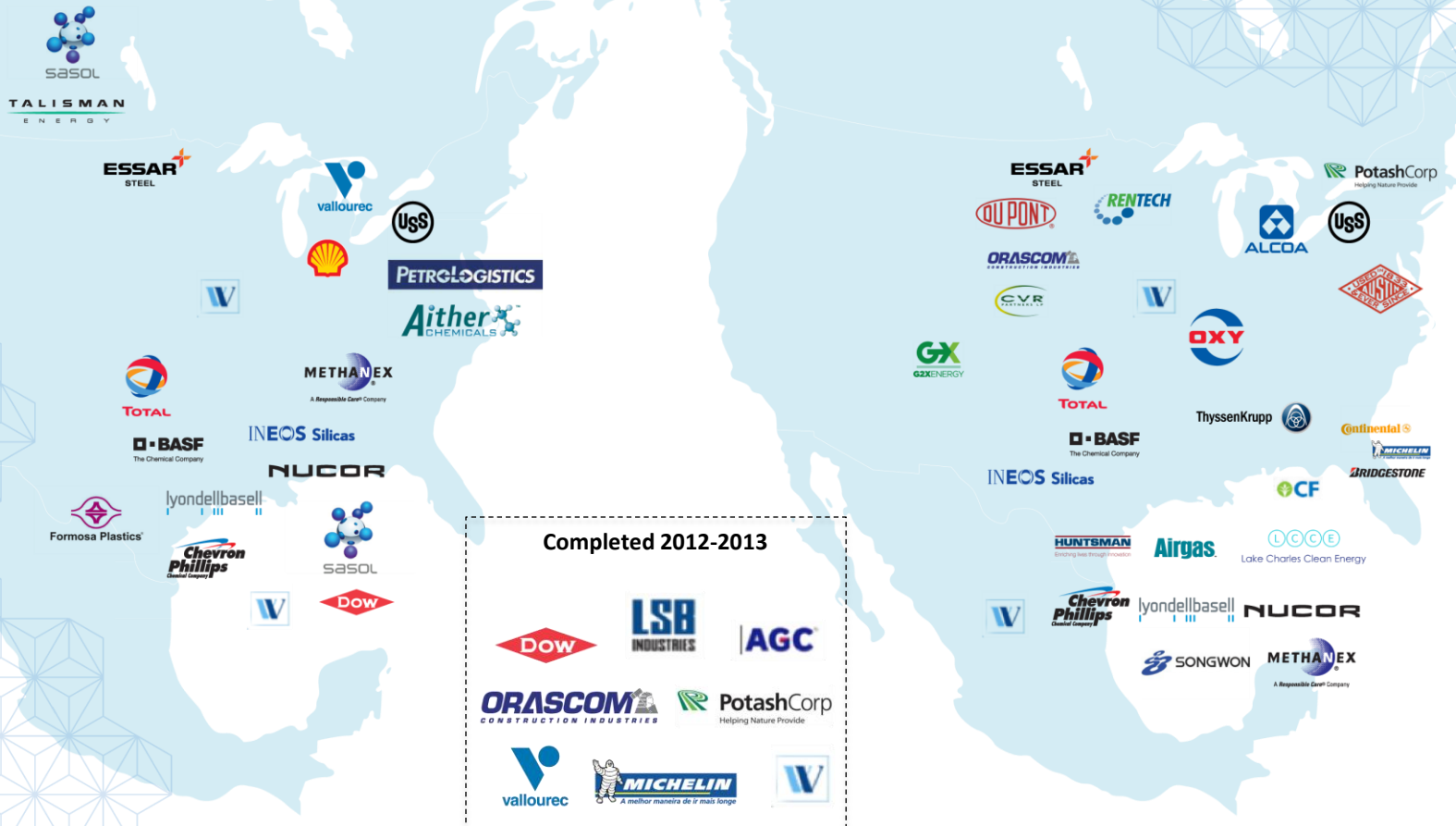
2013 View (Bcf/d)



THESE AFFORDABLE NATURAL GAS PRICES ARE DRIVING NORTH AMERICAN INDUSTRIAL GROWTH

April 2012: Announced

Current: Permitted or Under Constructions

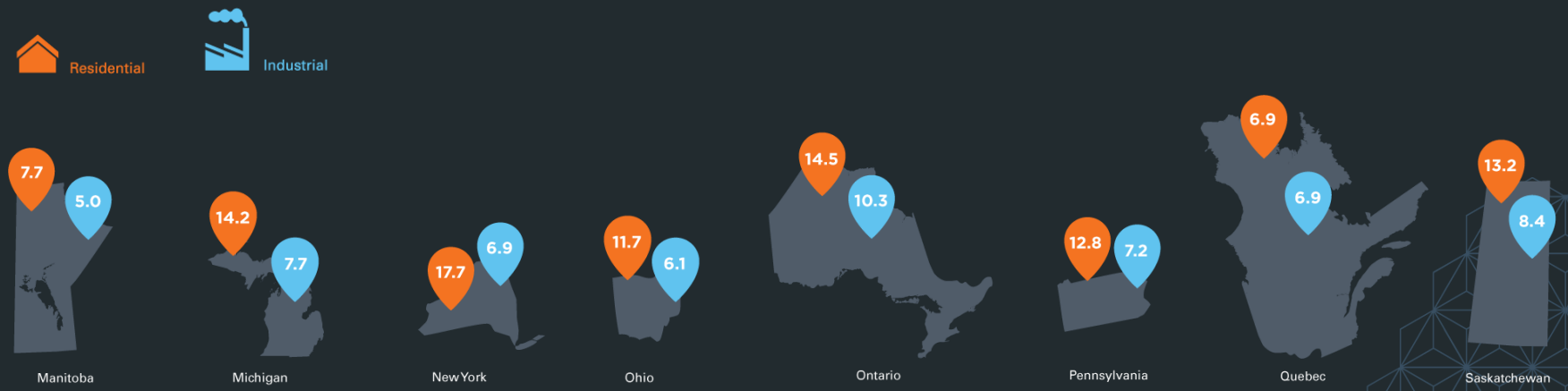


NATURAL GAS CAN JUMPSTART ONTARIO'S ECONOMY

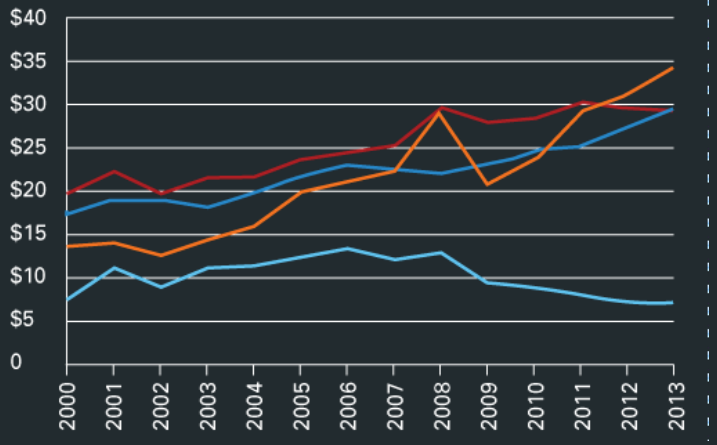
- **The first decade of the millennium was tough on Ontario's economy:**
  - The 2008 financial crisis hit Ontario hard.
  - From 1997 to 2010, Ontario's GDP grew at an average rate of 2.5% relative to the U.S.'s 4%.
- **While the recession has ended, Ontario industry – particularly manufacturing - needs a jumpstart :**
  - The province's tax environment and skilled labour force are internationally competitive.
  - Productivity growth has lagged the U.S., however, and many manufacturing jobs have been lost.
- **Energy is a key input resource to manufacturing industries and an important determinant of competitiveness.**
- **Natural gas has a growing cost advantage over other energy sources.**
- **Natural gas can help mitigate the impacts of Ontario's high cost of electricity:**
  - A lower cost and flexible energy option for many applications.

ONTARIO'S ELECTRICITY RATES VS. SURROUNDING PROVINCES/STATES

(Based on average residential and industrial consumption HOEP + global adjustment)



NATURAL GAS COST ADVANTAGES



Propane Electricity Home Heating Oil Natural Gas Prices

(burner tip rates)

THE REPATRIATION OF MANUFACTURING JOBS – ONTARIO MUST COMPETE

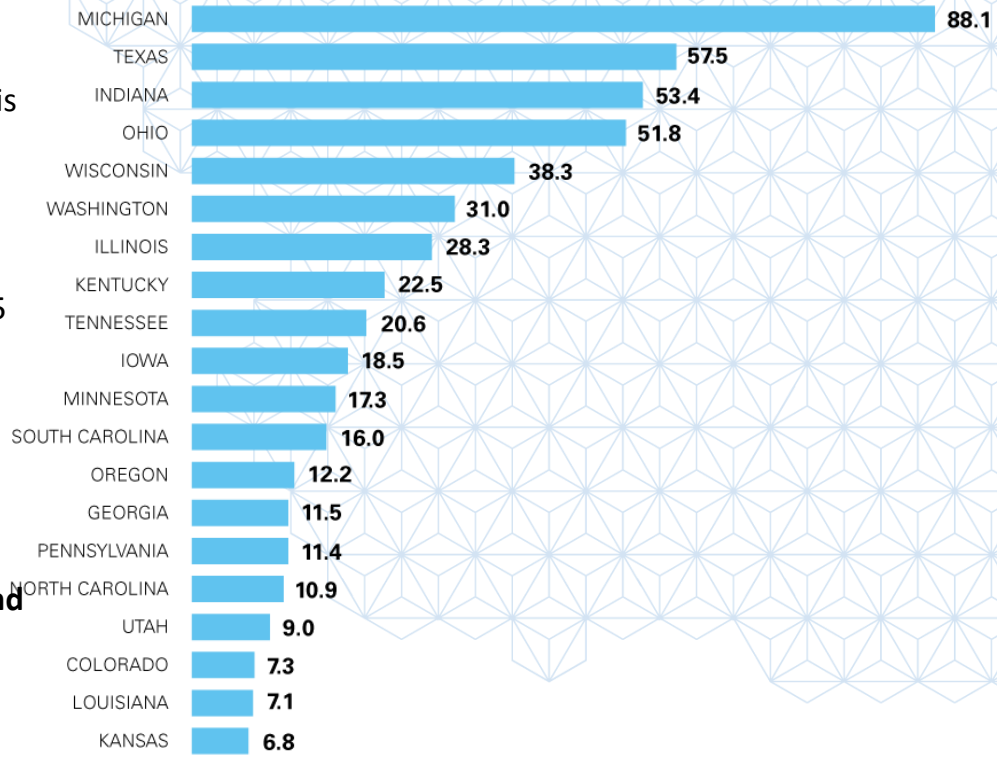
- U.S. natural gas has become the key driver in helping to fuel the country's economic recovery and competitive position, particularly in the rust belt states.

- Federal and state governments are exploiting this strategic energy advantage to rebuild U.S. manufacturing and jobs:
  - U.S. exports have grown 7X faster than GDP since 2005;
  - This manufacturing revival could create over 2.5 million jobs.

- High electricity prices have put Ontario at a disadvantage relative to neighbouring states and provinces.

Ontario must formulate an integrated economic and energy policy response to compete and foster a manufacturing renaissance of its own.

Top 20 States for Manufacturing job creation
December 2009 to March 2013
(in Thousands of Workers)

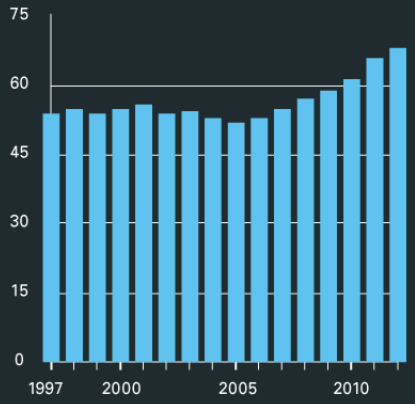


RISING TIDE

A NATURAL-GAS BOOM IS RESHAPING THE U.S. INDUSTRIAL SECTOR.

U.S. Production of natural gas has climbed...

Production, in billions of cubic feet per day.

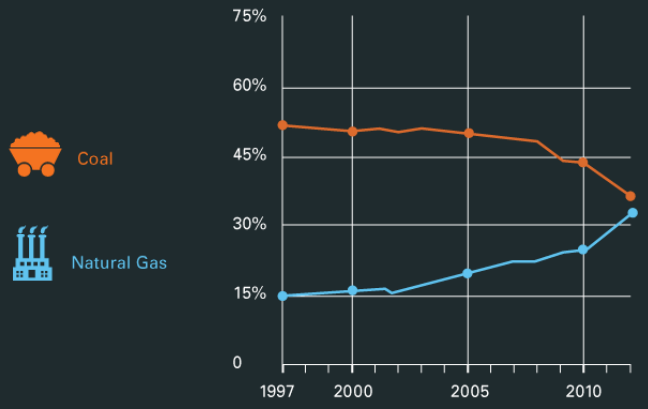


A big slice of the demand for gas comes from industry...

Consumption by end-use, average for the first nine months of 2012, in billions of cubic feet a day.

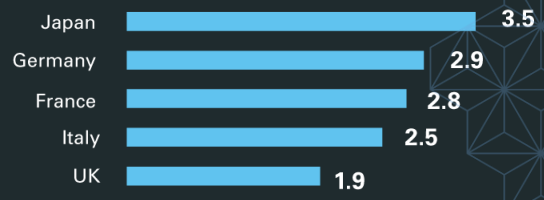
and natural gas now rivals coal as a source of electric power...

Consumption by end-use, average for the first nine months of 2012, share of total electric power generation.



which gives U.S. companies an edge over global competitors.

Natural-gas prices in other major manufacturing economies as multiples of U.S. prices; 2001 averages

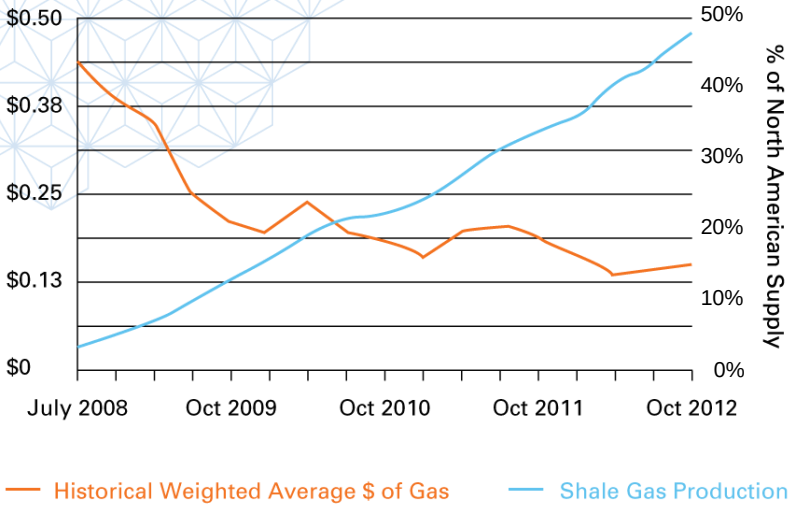


ONTARIO IS POSITIONED TO EXPLOIT NATURAL GAS AND DRIVE ITS MANUFACTURING RENAISSANCE

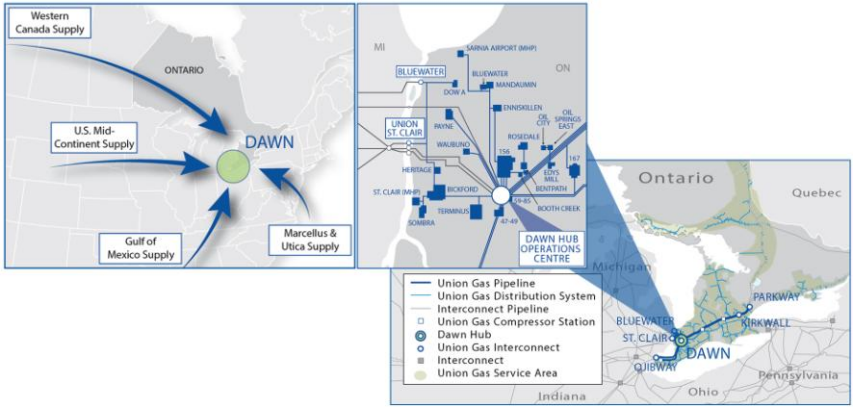
There have been dramatic shifts in North American gas supply…

- Innovation in shale gas technology has fundamentally changed the industry by making previously inaccessible formations accessible.
- Natural gas production has increased, with gas from shale formations now accounting for more than 50% of new exploration.
- Natural gas can be used to reduce input costs, attract new manufacturing industries and create jobs.

Impact of shale gas on natural gas prices



… and Ontario is strategically positioned to attract new competitively-priced natural gas supplies



- With the Union Gas Dawn hub outside Sarnia, Ontario can attract new affordable and diverse gas supplies and is at the centre of natural gas storage, transmission and distribution infrastructure.
- Dawn is one of the top-3 physical trading hubs for gas in North America.
- Natural gas transmission infrastructure to and from Dawn can be expanded further in the coming years to provide more access to natural gas supplies.
- Dawn gives Ontario the ability to provide existing and prospective manufacturers secure access to abundant, affordable and flexible energy.

FIRST BOLD PLAY: UTILIZING NATURAL GAS AS A STRATEGIC ASSET TO ATTRACT INDUSTRY

ONTARIO'S ROBUST NATURAL GAS INFRASTRUCTURE SHOULD BE A PART OF ONTARIO'S PITCH TO MANUFACTURERS

The Opportunity

- Ontario can help existing and attract new energy intensive industries.
- Reliable, affordable natural gas must be a part of the provincial government's pitch to manufacturers considering investments here.
- Natural gas can create jobs and growth in Ontario - helping our businesses compete globally and attracting business to Ontario.

What Other Jurisdictions Are Doing

- The Obama Administration has committed to making America a magnet for manufacturing jobs in both higher technology sectors and more traditional extractive industries.
- Advances in environmentally sustainable shale gas extraction technology is supporting millions of jobs, boosting trade and contributing to a rebuilding of America's competitiveness.

Why it Matters to Ontario

- Manufacturing industries regard energy as a key input cost in operations, utilizing ten times the energy of other sectors.
- Ontario's manufacturing sector continues to struggle to defend its eroding competitive position.
- Finding new ways of attracting industry will be central to job creation and economic growth in the province.
- Establishing a diversity of energy sources is key to ensuring secure long-term supply of affordable energy for manufacturing and other sectors.
- With low fuel costs and lower capital investment costs, natural gas provides a flexible option for Ontario's power generation future.

ENSURE AND PROMOTE ONTARIO'S ACCESS TO COMPETITIVELY PRICED NATURAL GAS PRICES

"U.S. manufacturing companies could employ approximately one million more workers by 2025 due to benefits from affordable energy and demand for products used to extract the [shale] gas."
- PwC "Shale Gas: A renaissance in U.S. manufacturing?"; 2011

Policy Prescriptions

1. Approve critical projects to ensure security of supply:
   - A number of projects being built by Enbridge, Union Gas, and TransCanada will ensure that there is adequate capacity to transport natural gas between Dawn, the GTA and Eastern Ontario.
   - Future projects will further connect new affordable supplies to the Union Gas Dawn Hub.
   - The Government of Ontario and municipal governments should continue to deal expeditiously with the regulatory applications for these essential infrastructure projects.
2. Actively pursue companies in energy intensive industries and those that use natural gas as a feedstock:
   - Ontario government should pursue strategic private sector investments driven by the province's geographic location and access to affordable and reliable energy.
     - The government should use reliable and affordable natural gas supplies and Ontario's robust natural gas infrastructure as selling points when promoting investment in Ontario.
     - Natural gas industry can assist government to identify such opportunities.
   - Government should activate a "one window team" to aggressively pursue priority opportunities, utilizing existing government tools:
     - This team would aggressively pursue the opportunity utilizing existing government tools and assist the company to navigate the licensing, regulatory, and other approvals processes.

SECOND BOLD PLAY: MAKING THE TRANSPORTATION OF GOODS AND PEOPLE CLEANER AND MORE AFFORDABLE

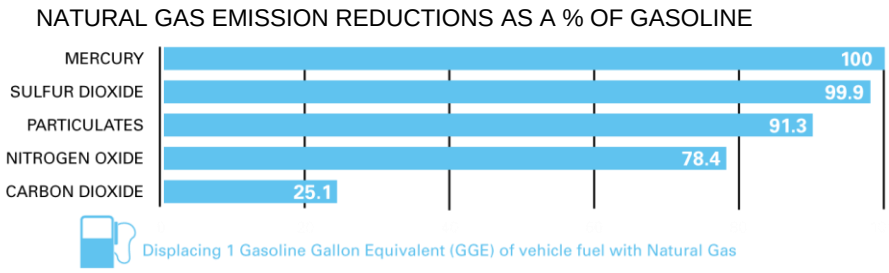
NATURAL GAS HOLDS PROMISE IN REDUCING BOTH THE COST AND ENVIRONMENTAL IMPACT OF ONTARIO'S TRANSPORTATION FLEETS

The Opportunity

- Natural gas presents an exciting opportunity to reduce the cost and environmental impact of Ontario's transportation fleets.
- Natural gas can reduce GHG emissions and cut transportation costs for business and industry, making Ontario more competitive and environmentally responsible.
- The competitive price advantages of natural gas create opportunities for liquefied natural gas (LNG) and compressed natural gas (CNG) to fuel heavy duty long-haul.

Why it Matters to Ontario

- Natural gas is up to 44% less expensive than gasoline and up to 45% less expensive than diesel and can be used to improve Ontario's economic competitiveness.
- Demand for natural gas technology and infrastructure would create jobs and economic development opportunities in Ontario.
- Natural gas provides a significant carbon advantage with 20-25% lower lifecycle greenhouse gas emissions compared to traditional transportation fuels.



ONTARIO'S COMPETITORS ARE AGGRESSIVELY PURSUING NATURAL GAS FOR TRANSPORTATION

Quebec

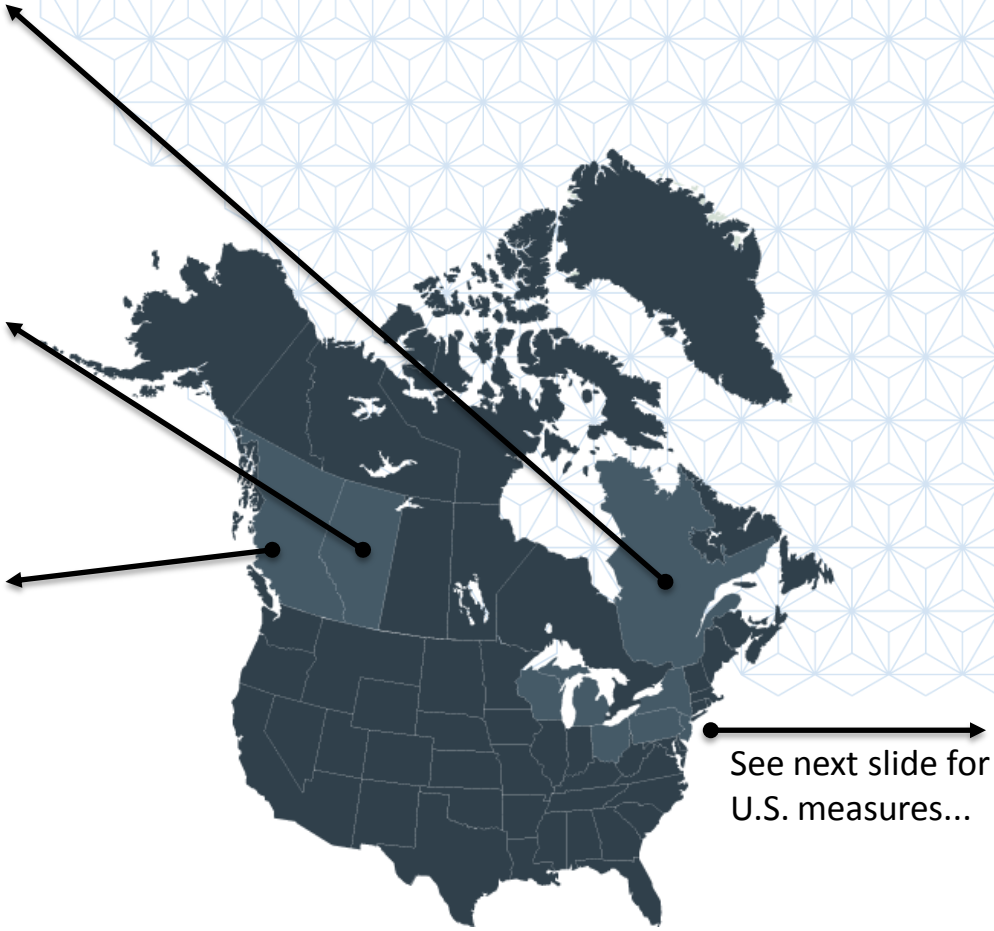
- Tax measures - accelerated capital cost allowance on new trucks;
- Subsidizing 30% of the incremental cost of natural gas vehicles up to a maximum of $75,000; and
- Investing in infrastructure for the "Blue Corridor."

Alberta

- Updating regulations to provide for increased weight allowances for LNG tractors on the road; and
- ATCO Gas is allowing public access to its private station in Lethbridge.

British Columbia

- Enabled regulated utilities to offer incentives and build / operate fueling stations;
- Allowed Fortis to offer incentive funding of up to 80% of the difference in cost for eligible medium and heavy natural gas vehicles; and
- Offering $5,000 incentive for factory-built dedicated light CNG vehicles.



See next slide for U.S. measures...

Michigan

Initiatives by the Michigan state government include:

- Tax exemption for properties used for high technology activities including those related to alternative vehicles;
- Permitting exemptions for natural gas storage and handling facilities; and
- Exemptions from emissions inspections for CNG, propane and electric vehicles.

Illinois

Initiatives by the Illinois state government include:

- Purchase and conversions incentives;
- Marketing opportunities for fleets using alternative fuels;
- School bus retrofit reimbursements;
- Alternative "Public Utility" definition for natural gas and electricity providers providing fuel for transportation; and
- Government fuel-efficient vehicle acquisition goals.

New York

Initiatives by the New York state government include:

- Vouchers for CNG vehicles and grants for fuel stations ;
- Exemptions from state sales and use taxes for CNG;
- Elimination of exclusivity agreements allowing franchisees to sell alternative fuels; and
- State acquisition requirements for alternative vehicles.

Pennsylvania

Initiatives by the Pennsylvania state government include:

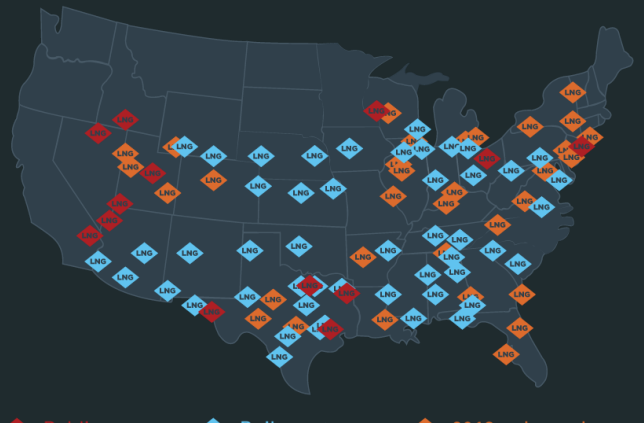
- Purchase and conversion incentives;
- Grants for LNG and CNG stations; and
- Participation in multistate initiative to encourage natural-gas vehicle procurement.

Ohio

Initiatives by the Ohio state government include:

- Purchase and conversion incentives;
- Emissions reduction programs for heavy duty vehicles;
- Exceptions to gross vehicle weight provisions; and
- Requirements for state vehicles to use alternative fuels.

U.S. is aggressively expanding refueling infrastructure



ONTARIO CAN CREATE THE POLICY ENVIRONMENT NEEDED TO UNLOCK PRIVATE SECTOR INVESTMENT

Barriers to the Opportunity

- A lack of LNG and CNG Infrastructure, including:
  - Lack of LNG plants, and
  - Lack of LNG/CNG refueling stations.
- Vehicle cost premium of CNG/LNG.
- Inconsistent regulatory requirements, particularly for CNG:
  - Inconsistencies between provincial and territorial regulatory regimes for CNG vehicles have resulted in a weak overall system for the implementation of natural-gas powered transportation vehicles in Canada.
  - Ontario is unique in that it has stricter regulations for CNG vehicles and refueling stations relative to the other provinces and territories.
    - For example, Ontario also has additional regulatory requirements for compressed gas and certification requirements for conversion shop personnel.

Policy Prescriptions

1. Promote natural gas as a policy direction for Ontario:
   - Implement policies that clearly indicate that the government is committed to increased use of natural gas.
   - This could include time-limited incentives, in the form of accelerated depreciation, to support the purchase of new CNG or LNG vehicles and the conversion of existing vehicles to use these fuels.
2. Incentivize private sector investment in LNG liquefaction plants and LNG refueling stations:
   - Ontario could join with the Province of Quebec and seek to mirror existing provincial legislation that provides incentives for the establishment of a “blue road” between Quebec City and Windsor and north through Sudbury.
   - Ontario must consider accelerated capital cost allowance for fuelling equipment to spur development.
3. Harmonize regulatory approaches to natural gas vehicles and refueling infrastructure:
   - Aid in the development of regulatory standards across the transportation industry which would remove barriers to adoption.

THIRD BOLD PLAY: CONNECTING RURAL ONTARIO FAMILIES AND BUSINESSES

NATURAL GAS IS TAKEN FOR GRANTED IN URBAN ONTARIO, BUT THOUSANDS OF RURAL FAMILIES AND BUSINESSES GO WITHOUT

The Opportunity

- Less than 20 percent of Ontario's rural residents have access to natural gas.
  - They instead rely on other energy sources which come at a significantly higher cost.
- Union Gas has identified more than 40 communities that could benefit from a program that improves access to natural gas.
- Communities that could be connected include:
  - Kincardine;
  - Milverton;
  - Bancroft; and
  - Marathon.

Why it Matters to Ontario

- The absence of natural gas is a barrier to economic development in a number of rural communities.
- Expanding access to affordable natural gas in rural communities can deliver annual savings in energy costs of more than $40 million to families and businesses.
  - Residential customers can save an average of 70-80% ($1,500 to $2,500) per year over current energy costs for heat and hot water, depending on their current energy source.
  - Medium sized commercial businesses can save up to $15,000 per year over current energy costs.

"Converting to natural gas could give [Kincardine] a competitive edge in terms of attracting and keeping businesses. We're one of the few jurisdictions left in Ontario that doesn't operate on natural gas, and that makes us less competitive. We want to keep people working here. We want to keep businesses."
-Councilor Ron Coristine, Municipality of Kincardine

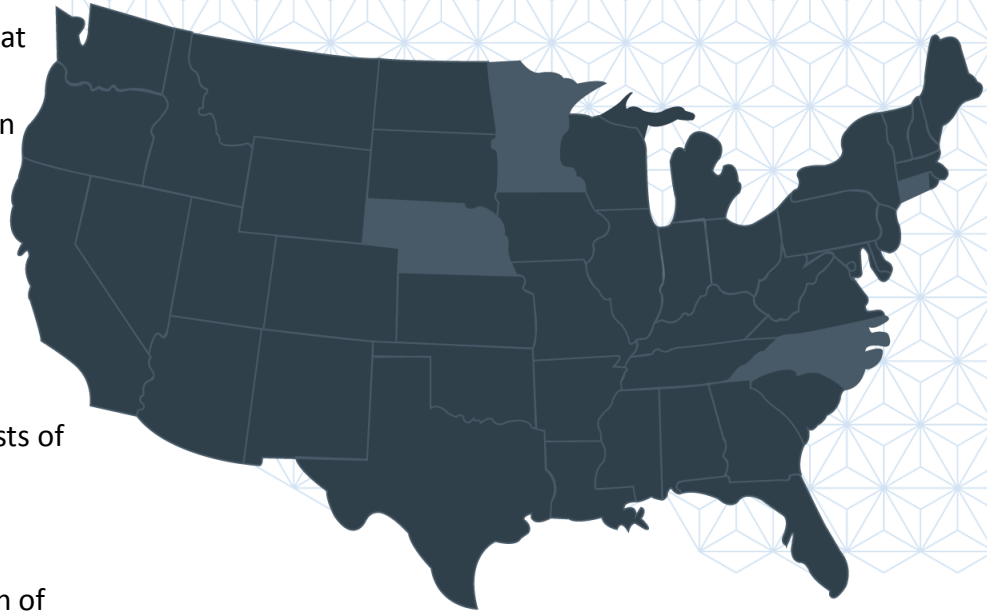
OTHER JURISDICTIONS RECOGNIZE THE IMPORTANCE OF CONNECTING SMALL AND RURAL COMMUNITIES

Nebraska

- Passed legislation facilitating the expansion of gas lines into new areas.
- Utilities allowed to spread the costs of line extensions to all of their ratepayers.

North Carolina

- Authorized the issue of bonds for natural gas extensions that are not economically feasible.
- Enacted legislation that allows for the creation of expansion funds for the extension of gas service to unserved areas.



Minnesota

- New Area Surcharge (NAS) for new customers in locations previously unserved.
  - Yearly surcharge calculated as the present value of the annual difference between the capital and operating costs of the line extension, and the non-gas revenues.

Connecticut

- Comprehensive Energy Strategy (CES) calls for an expansion of natural gas distribution infrastructure to increase access to natural gas to potential residential and commercial customers, and includes consideration of societal benefits in economic modelling.

ONTARIO CAN HELP CONNECT THOUSANDS OF ONTARIANS TO NATURAL GAS

Regulatory Barriers to the Opportunity

- Ontario's rural communities cannot be connected under the current Ontario Energy Board (OEB) economic tests.
    - The existing OEB economic tests do not allow for the medium or long-term subsidization of new customers by existing utility gas customers.
- **The Ontario government should implement time limited (five years) solutions to allow rural communities to be supplied with natural gas.**

Policy Prescriptions - 4 Steps to Expand Service

1. Direct Government Capital Contribution:
    - Province should provide a direct financial contribution to get communities connected.
        - For example, $200 million over 5 years would enable expansion to as many as 40,000 homes and businesses in over 40 towns and villages.
2. Provide direction to the OEB:
    - The Ontario government should work with the Ontario Energy Board to allow greater, time-limited, cross-subsidization to enable new customers to connect.
    - Any cross-subsidization should keep impacts on existing customers minimal (approximately 1% or $3.50/year for residential customers).
3. A tax based approach:
    - The province should make a change in tax regulations to allow municipalities to voluntarily forego pipeline related taxes until such time as the total customer contribution required for a project has been collected.
4. Extension of Local Improvement Charges:
    - The province should support and promote the use of Local Improvement Charges in order to help municipalities finance their contribution to the expansion project.

FOURTH BOLD PLAY: EXPANDING SUSTAINABILITY THROUGH COMBINED HEAT AND POWER

COMBINED HEAT AND POWER (CHP) SYSTEMS ARE COST AND ENVIRONMENTALLY EFFICIENT

The Opportunity

- Combined Heat and Power (CHP) systems are integrated energy systems that use natural gas to produce heat and electricity simultaneously.
- The wider utilization of CHP systems can help business competitiveness while strengthening and securing the electricity system, better serving industry through increased energy security and relieving critical pressure on the grid.

Recent Installations

- Windsor Casino (12 MW);
- West End Community Centre Guelph (.2 MW); and
- London Health Sciences (11 MW).

Under Construction

- A 5 MW project is currently in the commissioning phase.

Potential CHP Projects

- Over 50 projects are currently under investigation.

- Reduced costs and increased competitiveness for business:
  - Reduces the overall costs of buying electricity and heating separately;
  - Captures thermal energy and utilize in business operations; and
  - Eliminates 4-9% of energy losses during conventional electricity distribution and transmission.
- Energy system security:
  - Increases resilience of energy infrastructure and avoid potential supply disruptions;
  - Improves system grid operations by limiting/reducing electricity transmission and distribution congestion - reducing the need for more wire expansion; and
  - Assists businesses with energy price volatility and in handling potential weather-related electricity supply disruption.
- Increased energy and environmental efficiencies:
  - Reduces CO_2 emissions approximately 30% compared to using electricity from a combined-cycle natural gas plant; and
  - Reduces the need for distribution infrastructure due to localizing energy and heat into one system.

POLICY CLARITY CAN UNLOCK THE POTENTIAL OF CHP SOLUTIONS

Barriers to the Opportunity

- CHP projects are currently frozen in Ontario:
  - CHP was identified in the LTEP, however as of Feb 2014 a program has not been released.
  - CHP for greenhouses, agri-food and district energy system was identified in the LTEP. There is a need to support CHP development in all sectors.
- Lack of a competitive and workable stand-by-rate for CHP projects.

Policy Prescriptions

1. Provide direction to the Ontario Power Authority regarding Combined Heat and Power Standard Offer Program (CHPSOP) applications.
2. Work with the OEB to establish a fair, transparent and equitable stand-by-rate.
3. Increase government-industry coordination of CHP initiatives.

Other jurisdictions recognize the value of CHP projects

- President Obama's *Executive Order 13626 – Accelerating Investment in Industrial Energy Efficiency*, calls for 40 new gigawatts of cost-effective CHP by 2020.
- The EPA CHP Partnership works with organizations to promote the economic, environmental and energy benefits of CHP and the program has created 5,700MW of new CHP capacity.
- In May, government, utilities, technology providers, and developers met to advance CHP in Alberta.
- In BC, the Ministry of Agriculture published a discussion paper to guide local governments in regulating CHP generation at greenhouses in the province's Agricultural Land Reserve .

FIFTH BOLD PLAY: FUELLING THE RING OF FIRE USING NATURAL GAS

AFFORDABLE, FLEXIBLE AND EFFICIENT ENERGY IS NEEDED TO UNLOCK THE RING OF FIRE IN NORTHERN ONTARIO

The Opportunity

- The Ring of Fire is one of the most significant mineral regions in the province.
- Rising fuel costs and difficulties in securing reliable and affordable electricity are challenging the economics of developing resources - natural gas can help.
- Affordable, flexible and efficient energy could unlock the Ring of Fire by making production and processing affordable.

Why it Matters to Ontario

- The Ring of Fire would create jobs and economic prosperity in Ontario for decades:
  - The region is estimated to contain between $30B to $50B worth of minerals, providing jobs for decades to come.
  - The Ring of Fire has tremendous potential to bring tangible benefits to northwestern communities, including First Nations communities.
- The current plan to further subsidize electricity rates for the Ring of Fire is not sustainable and is costly to existing and future ratepayers and taxpayers.

"The Ring of Fire is a wonderful opportunity for Ontario to create jobs and grow its regional economies."
-Premier Kathleen Wynne

"The Ring of Fire is a once-in-a-century opportunity. What the oil sands are to Alberta and potash is to Saskatchewan, the Ring of Fire could be to Ontario."
-PC Leader Tim Hudak

"The Ring of Fire offers First Nations and the North huge economic opportunities and much needed jobs."
-NDP Leader Andrea Horwath

"The delivery of reliable, inexpensive and large volumes of natural gas to this hitherto inaccessible region would act as a major catalyst and would realize the potential embedded in this large scale, structural transformation…in an area of Ontario that has not shared sufficiently or equitably in Ontario's prosperity."
- McMaster University, 2012

ONTARIO CAN SHIFT THE ENERGY PARADIGM TO UNLOCK THE RING OF FIRE

Barriers to the Opportunity

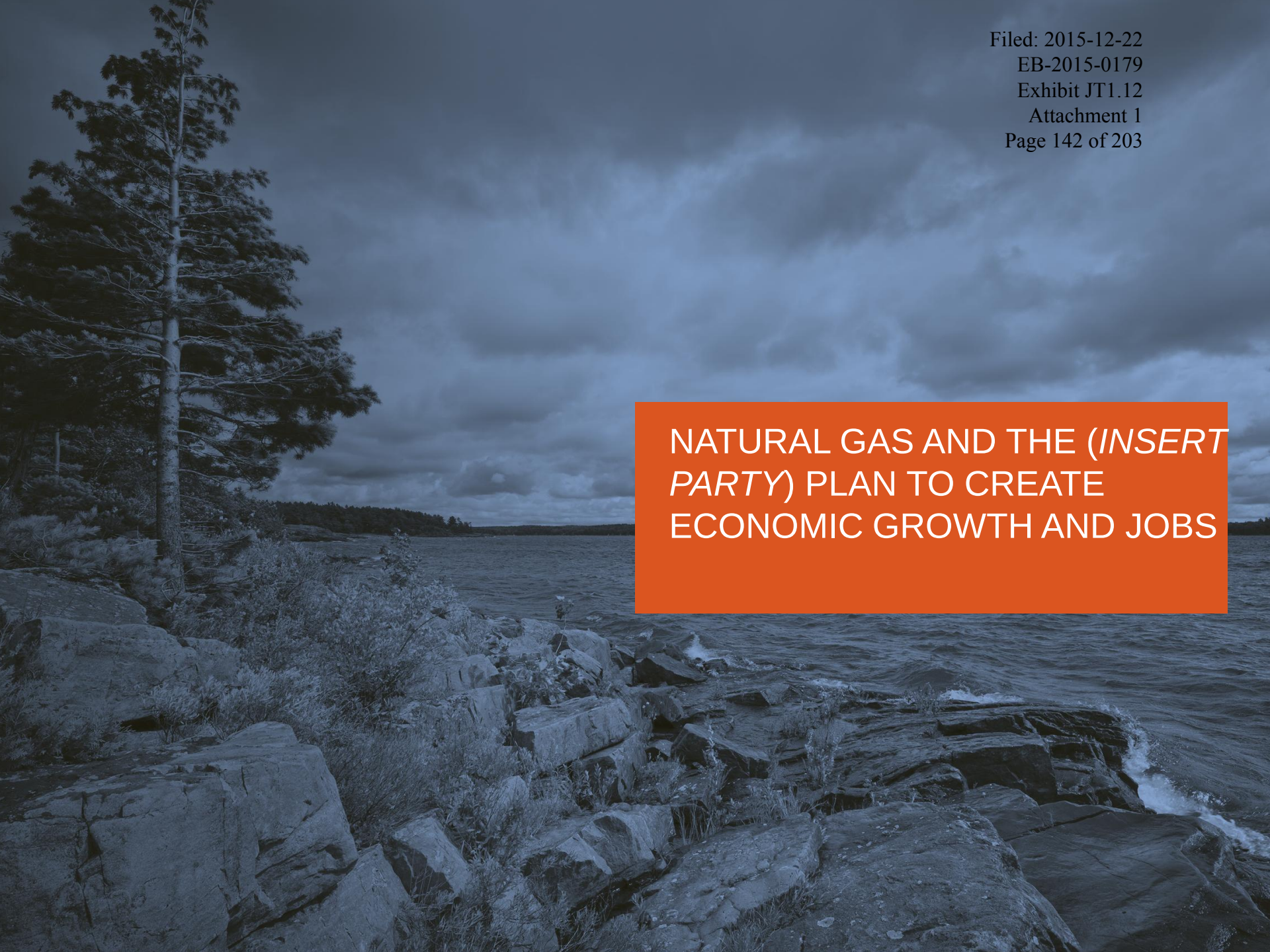
- Energy infrastructure is desperately needed for the Ring of Fire:
  - The mining sector faces obstacles prompted by rising fuel costs, challenges in securing affordable electricity and carbon policy developments.
  - In 2010, Ontario's uncompetitive electricity rates caused mining giant Xstrata to move processing operations from Timmins across the border to Quebec, taking 670 jobs with it.
- Subsidization of electricity rates is unsustainable for long-term northern investment.
  - Subsidization adds to the unpredictability of energy in the province, leading to uncompetitive electricity rates.

Policy Prescriptions

1. Establish policy promoting the use of natural gas:
   - Undertake a broader review and policy discussion surrounding LNG and CNG applications for mining development, expansion and operation in northern Ontario.
2. Study the use of CNG/LNG fuelled cogeneration as an alternative to subsidized electricity to meet the energy needs of the Ring of Fire:
   - CNG/LNG could offer an alternative solution to meet the significant energy demands of processing chromite and other minerals.
   - A natural gas alternative would avoid subjecting Ontario ratepayers to years subsidizing electricity while trying to compete with low priced energy jurisdictions.

Other jurisdictions recognize the value of CHP projects

- A 2010 report by the Yukon's Department of Energy, Mines and Resources concluded that natural gas could meet the Yukon's projected energy requirements for decades, and would be a low-capital alternative. The government therefore made changes to the *Oil and Gas Act* to promote natural gas use by industry.
- After nearly a decade of paying the highest costs in South America, copper miners in Chile are analyzing the use of shale gas in their processes.



NATURAL GAS AND THE (*INSERT PARTY*) PLAN TO CREATE ECONOMIC GROWTH AND JOBS

THE ONTARIO PC PARTY HAS RECOGNIZED THE NEED TO DIVERSIFY ONTARIO'S ENERGY SOURCES

Ontario PC Policy/Positions

- Energy prices impact consumers and virtually every element of the provincial economy.
- Ontario's manufacturing industry is struggling to remain competitive due in part to the rising cost of electricity.
- Expensive subsidies for wind and solar projects don't make basic economic sense - there is a need to focus on reliable, affordable energy.

  "Ontario's economy will grow again when we keep power rates down for businesses."

  -Paths to Prosperity: Affordable Energy
- The Progressive Conservative Party of Ontario recognizes that the province needs to get its power supply and demand back in balance:
  - There is a clear need for a plan to provide sustainable energy at sustainable prices for both residential and industrial consumers.

How Natural Gas Helps

Restoring Ontario's Manufacturing Base: Natural gas can help existing energy intensive industries in Ontario increase their output and lure new businesses to Ontario.

Reducing Cost to Businesses: Natural gas can reduce fuel costs significantly, reducing input and transportation costs for business and making them more competitive.

Increasing Energy Security: Wider utilization of CHP will ease the burden on the electricity grid and assist organizations in handling potential weather-related electricity supply disruption.

Providing Fairness for Rural Ontario: Supporting the expansion of natural gas to non-serviced communities will support economic development in rural communities across the southwest and eastern parts of Ontario.

ONTARIO LIBERALS HAVE RECOGNIZED THE NEED TO DIVERSIFY ONTARIO'S ENERGY SOURCES

Ontario Liberal Policies / Positions

- Over the past decade, the Ontario economy has confronted significant external challenges that raised business costs, eroded the province's competitiveness, and reduced Ontario's exports to the United States.

  "Creating jobs and helping people in their everyday lives is what they want and it's the most important thing I can do."

  - Premier Kathleen Wynne

  "Economic growth and job creation are driven by business and entrepreneurs taking risks and making investments – the government's efforts are best focused on creating a favourable economic environment."

  - *A Prosperous & Fair Economy*

- Ontario will continue to be a leader in energy conservation and see the creation of new-economy jobs through the deployment of leading energy efficiency technologies in Ontario homes and businesses.

How Natural Gas Helps

Restoring Ontario's Manufacturing Base: Natural gas can help existing energy intensive industries in Ontario increase their output and attract new businesses to Ontario.

Reducing Cost to Businesses: Natural gas can reduce fuel costs significantly, reducing input and transportation costs for business and making them more competitive .

Increasing Energy Security: Wider utilization of CHP will ease the burden on the electricity grid and assist organizations in handling potential weather-related electricity supply disruption.

Providing Fairness for Rural Ontario: Supporting the expansion of natural gas to non-serviced communities would support economic development in rural communities across the southwest and eastern parts of Ontario.

THE ONTARIO NDP HAS RECOGNIZED THE NEED TO DIVERSIFY ONTARIO'S ENERGY SOURCES

Ontario NDP Policy/Position

- Over the past decade, the Ontario economy has confronted significant external challenges that raised business costs, eroded the province's competitiveness, and reduced Ontario's exports to the United States.
- Ontario's residents want to make their homes more energy efficient, and we have a responsibility to ensure that the energy we generate and use is done in a way that's clean and efficient.

  "[We will] invest in comprehensive energy efficiency programs that put money into household budgets"

  - Affordable Green Choices Plan
- The Ontario NDP recognizes that Ontario needs a smart, diverse energy mix to meet the demands of its population and economy.

How Natural Gas Helps

Restoring Ontario's Manufacturing Base: Natural gas can help existing energy intensive industries in Ontario increase their output and lure new businesses to Ontario.

Reducing Cost to Businesses: Natural gas can reduce fuel costs significantly, reducing input and transportation costs for business and making them more competitive .

Increasing Energy Security: Wider utilization of CHP will ease the burden on the electricity grid and assist organizations in handling potential weather-related electricity supply disruption.

Providing Fairness for Rural Ontario: Supporting the expansion of natural gas to non-serviced communities would support economic development in rural communities across the southwest and eastern parts of Ontario.

CONNECTING COMMUNITIES **TO NATURAL GAS**

PROPOSED FUNDING PROCESS **AT A GLANCE**

Required Policy Development Focus Areas

1. Regulatory (OEB) Flexibility
   - Capital Pass Through
   - Economic threshold relaxation
   - Expansion customer surcharge
2. Provincial Funding (Loan/Grant) approval process

EXPRESSION OF INTEREST

Expression of Interest:

- Annual funding season application period
- Municipal Expression of Interest
- Preliminary Economics
- Municipal Agreement on Financial Contributions

PROJECT VALIDATION AND PRIORITIZATION

Project Validation and Prioritization:

- Utility validates supply considerations
- Utility prioritizes candidate project list
- Municipality applies for Provincial funding

APPROVAL AND CONSTRUCTION

Approval and Construction:

- Ministry conditionally approves grants and loans
- Utility completes detailed costing
- Utility confirms intent to proceed
- Utility seeks OEB approval
- OEB approves project
- Ministry approves and commits payment
- Utility constructs project

uniongas

A Spectra Energy Company

◆ Project enabled through regulatory flexibility and municipal tax rebates

◆ Project also requires Provincial grants/loans or other funding

TOP 10* POTENTIAL COMMUNITIES

Over 16,500 homes and businesses benefit from access to natural gas

- Lambton Shores and Kettle Point First Nation
- Prince Township (S.S. Marie)
- Swiss Meadow
- Walpole Island First Nation
- Moraviantown First Nation
- Lagoon City (Orillia)
- Milverton
- Oneida First Nation
- Astorville
- Kincardine/Tiverton/ Paisley/Chesley

*Based on community size and economic viability

FUNDING THE TOP 10

- $110M-$130M gross capital cost
- $105M-$120M in required economic support. Possible funding mechanisms:
  - $45M: Expansion Surcharge
  - $15M: Economic Threshold Reduction
  - $10M: Municipal Tax Rebates
  - $35M-$50M: Provincial Grants/ Loans or Other Sources

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Okrucky, Jeff

From: Okrucky, Jeff
Sent: October 10, 2014 8:43 AM
To: 'sunita.chandler@ontario.ca'
Cc: 'Anna.DiMisa@ontario.ca'; 'Doug.MacCallum@ontario.ca'; Ungerman, Paul; Ripley, Chris; Hodgins, Jeff
Subject: Natural Gas Expansion: Regulatory Enablers

Hi Sunita, thanks for taking the time to speak with us last week.

I had a note to follow up with you on recent PI's and the potential impact of relaxing the economic thresholds for community expansion projects.

There are two separate perspectives that we look at the broader economic impact of new business projects from; an Investment Portfolio (IP) perspective, and the Rolling Project Portfolio (RPP) perspective. The IP includes all budgeted mains and attachments for a given budget year only, along with the associated revenue streams. In contrast, the RPP includes only projects where main is required, but includes costs and revenue streams for all future customers forecasted for the projects. Our current minimum thresholds are PI's of 0.8 for a specific project (by exception approval only), and portfolio PI's of 1.1 and 1.0 for the IP and RPP, respectively.

The Profitability Index (PI) for our corporate RPP for the last two of years has ranged from 1.36 to 1.66, with a simple average of 1.46. We report this number to the OEB each quarter. In practice though, we manage the union north and union south portfolios separately because there are different distribution rate structures for each. At a union north/union south level the range has been from 1.14 to 1.68, with the lowest period being the 12 months in which the Red Lake expansion project was included in the northern portfolio.

The IP has corporate PI's of 1.26 for both 2013 and 2014. From a portfolio management perspective (union north vs union south), PI's have ranged from 1.14 to 1.56. Investment Portfolio PI's are reported to the OEB in our cost of service applications.

The union north portfolio is more sensitive to any incremental investment at reduced PI's because it's about half the size of the union south portfolio. Given that that a high concentration of potential expansion projects are in the union north rate area, we conducted a simplified Investment Portfolio analysis, based on 2013 and 2014 budgets, to estimate the impact of reduced minimum PI thresholds on the maximum incremental capital that could be invested in expansion. The scenarios below assume future base portfolios don't change significantly from the past couple of years. Following are the results:

- Scenario A: Union could expand the northern distribution system by an incremental $20M per year at a PI of 0.8, while maintaining a portfolio PI of 1.1.
- Scenario B: If the minimum PI threshold for individual projects is reduced to 0.6, but the portfolio minimum remains at 1.1, the level of incremental expansion would be limited to about $12M each year. In other words, about $8M of the $20M from scenario A would be redirected to support the reduced PI's of the additional projects. Although existing customers would not be cross subsidizing the expansion over the longer term, the amount of capital available to support expansion would be restricted.
- Scenario C: In addition to project PI minimums of 0.6, if the Investment Portfolio minimum threshold is reduced from 1.1 to 0.9, the level of potential expansion increases to $30M per year. However, in this last scenario, existing customers would be subsidizing the cost of adding the new communities to the tune of an incremental $10M in capital investment each year.

Though the customer surcharge that we spoke in more detail last week about would drive the most significant contribution to project economics, based on this analysis it's evident that gaining regulatory approval for reduced PI's

can play a significant role in making expansion a reality. Of course gaining approval to treat the incremental capital as a pass through to rates over the term of our Incentive Regulation framework remains a key enabler for us from an investment perspective as well.

Please feel free to reach out to us if you require any clarification.

Best Regards,

Jeff Okrucky
Director, Distribution Marketing

800 571-8446 ext **5004681** / 519 401-6490 mobile

Okrucky, Jeff

From: Ungerman, Paul
Sent: October 9, 2014 5:37 PM
To: Beare, Michael (ENERGY)
Cc: MacCallum, Doug (ENERGY); Di Misa, Anna (ENERGY); Chander, Sunita (ENERGY); Okrucky, Jeff; Durham, Jennifer
Subject: RE: Gas expansion discussion follow-up questions
Attachments: 2014_Natural_Gas_Opportunities_Breakfast.jpg

Hi Michael –

Firstly, it was our pleasure! We'd be happy to schedule a follow-up meeting and have scheduled a day at Queen's Park on October 29th that may offer up a possible opportunity to do so. We're going to be meeting with a variety of Minister's offices and ministries that day, but we could certainly look to block some time to delve a bit deeper into the weeds and go over our policy proposal then.

In addition, Doug and I connected and we'd be happy to host as many staff (energy or otherwise) at our morning natural gas opportunities breakfast as would be interested in gaining some context and perspective on other natural gas related opportunities and what other provinces are doing to attract similar investments.

Let me know and we can schedule accordingly,
Paul

From: Beare, Michael (ENERGY) [mailto:Michael.Beare@ontario.ca]
Sent: October-09-14 11:03 AM
To: Ungerman, Paul
Cc: MacCallum, Doug (ENERGY); Di Misa, Anna (ENERGY); Chander, Sunita (ENERGY)
Subject: Gas expansion discussion follow-up questions

Hi Paul,

Thank you for coming in last week to chat about natural gas expansion.

We have a few follow-up questions below we would like to ask.

We would also like to know if Union would be available to meet again with staff to provide a 101 walk-through of all of the steps the utility would need to take when expanding natural gas service to new customers. If possible, it would be helpful to provide the steps the customers/ municipality would also need to take. A delineation between expansion projects that do and do not require a customer contribution would be appreciated.

Thanks,

Michael

Michael Beare
Senior Policy Advisor
Ministry of Energy
Strategic Network and Agency Policy Division
Delivery and Agency Policy Branch
Delivery and Consumer Policy Section
77 Grenville St, 6th Floor

Toronto, ON M7A 2C1
Tel: 416-327-5313
E-mail: michael.beare@ontario.ca

1. To follow-up on your suggestion that some flexibility in the rolling portfolio PI (EBO-188 requirement) may help facilitate expansion, could you provide Ministry of Energy staff with the quarterly PI of the 12-month rolling distribution system expansion portfolio for the last 3 years? To also aid in analysis, could you also provide the associated NPV of costs and revenues so we have a sense of the size of the portfolio and how it varies over time?

2. Is there any preliminary analysis (e.g., part of your tabletop analysis) of individual projects that may be helped by PI flexibility (e.g., NPV of project costs and revenue, individual project PI, impact on current 12-month rolling expansion portfolio if included). If so, could you provide this information (it being understood this is an estimate only and costs/revenues may change).

3. Using the same project examples, is there any analysis of how the proposed new customer surcharge would affect PI? Could you confirm that the proposed new customer surcharge would be treated as a customer contribution, therefore, not included in ratebase and increasing the PI of the project. Do you have any sensitivity analysis around the level of surcharge vs the need for PI flexibility for any specific projects you have been looking at (understanding the costs are estimates only)?

    a. Based on a 23 cent per cubic meter volumetric charge, the average residential customer would contribute approx. 4K over 8 years How many communities, from the list Union provided us previously, does Union think could be “unlocked” by implementing this type of a customer surcharge? Can they provide any additional information/analysis on how they landed on 23 cents?

Okrucky, Jeff

From: Ungerman, Paul
Sent: April 17, 2014 2:06 PM
To: Leask, Janette (OMAFRA); Okrucky, Jeff; darren.mcilwraith@enbridge.com; michelle.wasylyshen@enbridge.com; norm.ryckman@enbridge.com; Hodgins, Jeff; Reid, Michael (ENERGY); MacCallum, Doug (ENERGY); Chander, Sunita (ENERGY); Spence Lair, Marlo (ENERGY); LaMantia, Tony (MEDTE/MRI); Sharrett, Marc (MEDTE/MRI); Wai, David (MEDTE/MRI); Mandrapilias, George (MEDTE/MRI); Giannekos, Chris (MOI); Neil Currie; CathieBrown@amo.on.ca; MacNeil, Amber (MOI)
Cc: Locklin, Joel (OMAFRA); Malcolmson, Phil (OMAFRA); McKay, Brendan (OMAFRA); Cooper, David (OMAFRA); Duff, Scott (OMAFRA); Florio, Basia (OMAFRA); Ferraro, Kevin (OMAFRA)
Subject: RE: March 24th Natural Gas Roundtable
Attachments: AGAStateExpansionActivity_February2014.pdf

Hello Janette –

Enclosed are a few web links for work undertaken by the National Regulatory Research Institute on FERC policy related to expansion, along with an American Gas Association update on expansion activities among U.S. states. There are plenty of examples listed on how US States are actively supporting expansion and regulatory principles being applied are part of these frameworks.

Please feel free to be in touch if you have any additional questions for Union/Enbridge and we'll do our best to provide joint responses,
Paul

http://www.nga.org/files/live/sites/NGA/files/pdf/2013/1309ShaleEnergyDevCostello.pdf

http://www.nrri.org/documents/317330/aa3828ed-bbfa-4fac-b405-c6045dcf580c

Paul

From: Leask, Janette (OMAFRA) [mailto:janette.leask@ontario.ca]
Sent: April-07-14 4:03 PM
To: Ungerman, Paul; Okrucky, Jeff; darren.mcilwraith@enbridge.com; michelle.wasylyshen@enbridge.com; norm.ryckman@enbridge.com; Hodgins, Jeff; Reid, Michael (ENERGY); MacCallum, Doug (ENERGY); Chander, Sunita (ENERGY); Spence Lair, Marlo (ENERGY); LaMantia, Tony (MEDTE/MRI); Sharrett, Marc (MEDTE/MRI); Wai, David (MEDTE/MRI); Mandrapilias, George (MEDTE/MRI); Giannekos, Chris (MOI); Neil Currie; CathieBrown@amo.on.ca; MacNeil, Amber (MOI)
Cc: Locklin, Joel (OMAFRA); Malcolmson, Phil (OMAFRA); McKay, Brendan (OMAFRA); Cooper, David (OMAFRA); Duff, Scott (OMAFRA); Florio, Basia (OMAFRA); Ferraro, Kevin (OMAFRA)
Subject: March 24th Natural Gas Roundtable

Good Afternoon,

Thank you for attending the March 24th natural gas roundtable discussion. We hope that you found it to be an engaging and productive discussion.
Attached is a short summary of the meeting, including some questions and next steps arising from our discussions.

Of particular note was a request for Union Gas and Enbridge to provide additional information on the range of programs and tools in use in other jurisdictions to encourage natural gas expansion.

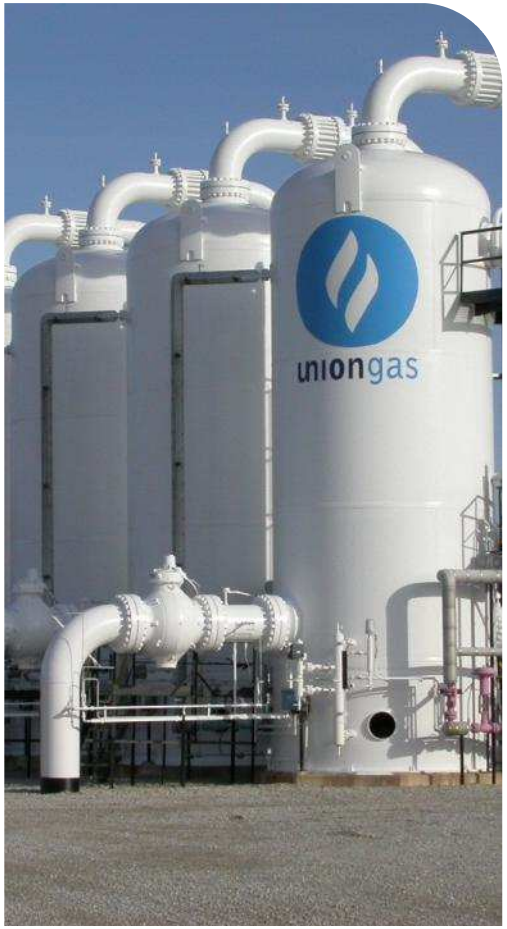
OMAF and MRA would be happy to provide a single point of contact for follow-up on this, or any other information participants wish to share. Based on input received, we would also be happy to arrange a follow-up teleconference for those interested.

If you have any questions or would like to share additional information, please feel free to contact:

Joel Locklin
Policy Advisor, Assistant Deputy Minister's Office, Policy Division
Ministry of Agriculture and Food
Ministry of Rural Affairs
519-826-3771
joel.locklin@ontario.ca

Thanks,

Janette Leask
Policy Advisor
Strategic Policy Branch
Ontario Ministry of Agriculture & Food/Ontario Ministry of Rural Affairs
p: 519-826-4842
f: 519-826-3614
janette.leask@ontario.ca



Annual Stakeholder Update; April 2014

Community Expansion

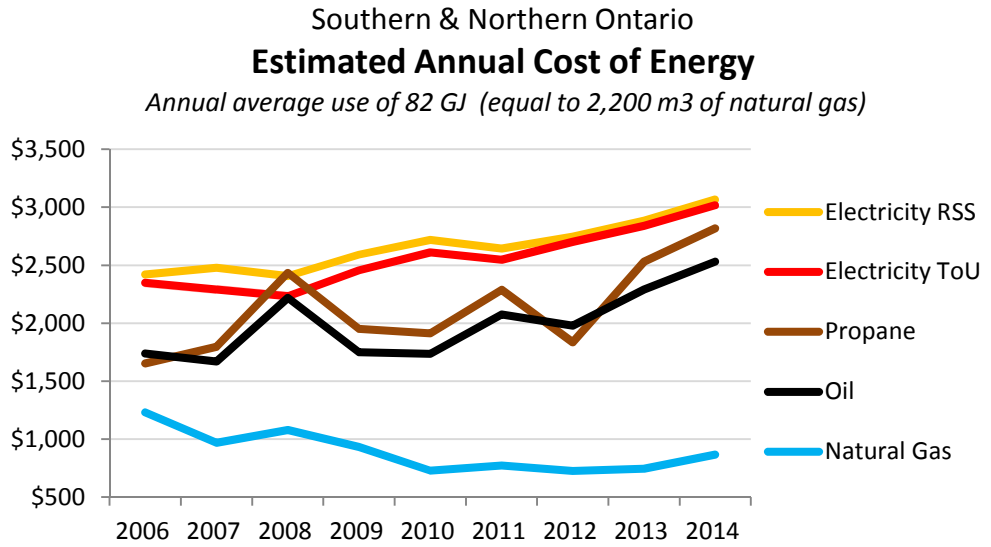
Jeff Okrucky,
Director, Distribution Marketing

Community Expansion Agenda

- Background
- Scale and Barriers of Initiative
- Ministry of Energy Discussion
- Next Steps

Background

- Escalation in energy prices for other fuels is creating unprecedented interest in conversion to natural gas
- Detailed discussion with a number of municipalities
- Ontario Federation of Agriculture Provincial budget submission



- December, 2013, Provincial Long Term Energy Plan commitment:
  - "The government will work with gas distributors and municipalities to pursue options to expand natural gas infrastructure to service more communities in rural and northern Ontario."

Scale and Barriers

Potential Scale

- ~20 community projects >500 properties; ~40 with >100 properties
- Natural Gas access potential for up to 40,000 customers serving a population of 100,000

Barriers

- Economic Feasibility
  - ~30 km average from existing gas system
- EBO188 Flexibility
  - Very few communities with P.I. > 0.8
  - Prohibitive up-front contributions necessary to get to minimum economic feasibility requirements

Ministry of Energy (MoEn) Discussion: Suggested Principles

- Each of the major participants in an extended gas infrastructure program should contribute towards the cost:
  - Province
  - Municipalities/First Nations
  - Conversion Customers
  - Gas Utility
- Public policy position on “equal access” principle a key consideration
  - If cross subsidization from existing ratepayers contemplated, resulting rate impact should be limited
- Utility partners should not be exposed to additional financial risk related to the incremental capital investment.

MoEn Discussion: Benefits

- Residential customers can save $1,500-$2,500 in annual energy costs; mid sized commercial save in $15,000 range
- Potential local economic stimulus resulting from $40 million per year increase in disposable income for residents
- Removal of an economic development barrier for rural and northern towns and villages
- Construction and HVAC jobs through the conversion period

MoEn Discussion: Enabling Expansion

- Direct Provincial funding
- Regulatory Flexibility:
  - Capital Pass-Through treatment in rate setting
  - Variance from current guidelines
    - Minimum PI thresholds at Project, Investment Portfolio and Rolling Project Portfolio levels
  - Enable flexibility in means of collecting, and treatment of, conversion customer and/or municipal contributions
    - Temporary “Community Expansion Surcharge” treated as regulated revenue for ratemaking purposes

Next Steps

- "Tabletop" quantification of community potential
- Initial exploration of town border supply alternatives
- Firm indication of Provincial Funding support commitment (Provincial Budget)
- Understand required regulatory process

ENBRIDGE

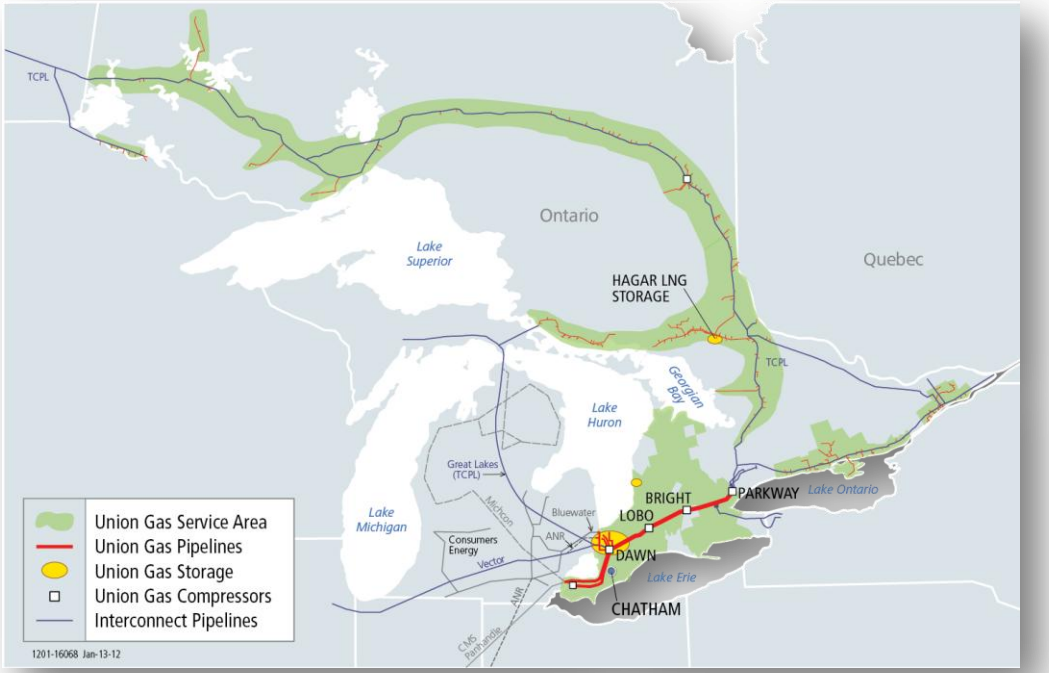
union gas
A Spectra Energy Company

March 24, 2014

Rural/Northern Community Expansion

Union Gas

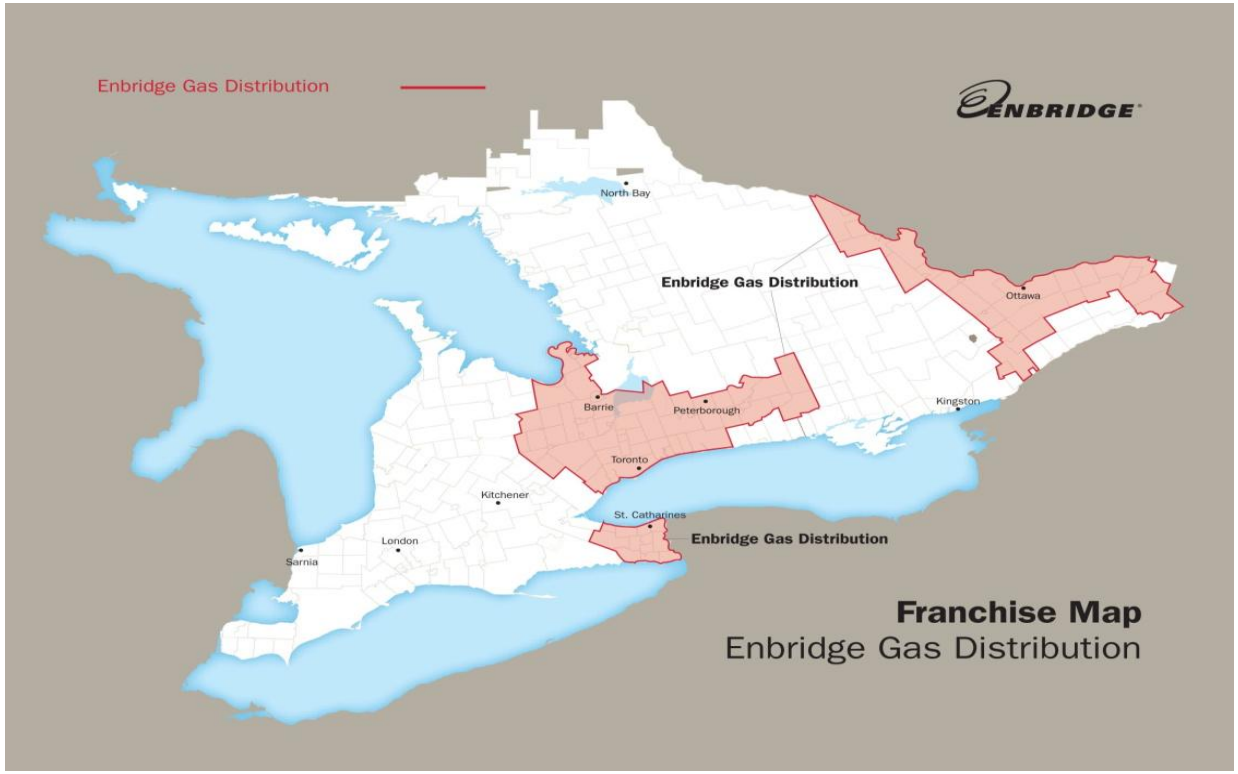
- Major Canadian natural gas storage, transmission and distribution company based in Ontario
- Over 100 years of experience and safe service to customers
- Dawn Storage facility – largest underground storage facility in Canada
- Dawn Hub, one of the top-5 physically traded hubs in North America
- Assets of $5.8 billion, ~1.4 million customers, ~2,200 employees
- One of Canada's Top 100 Employers for 2011, 2012, 2013
- A Spectra Energy (NYSE: SE) company



Retail Customers	1.4 million
2012 Pipeline Throughput	1.295 Bcf
Distribution Pipe	63,200 km / 39,000 mi
Storage Capacity	155 Bcf
Transmission Pipe	4,750 km / 3,000 mi

Enbridge Gas Distribution

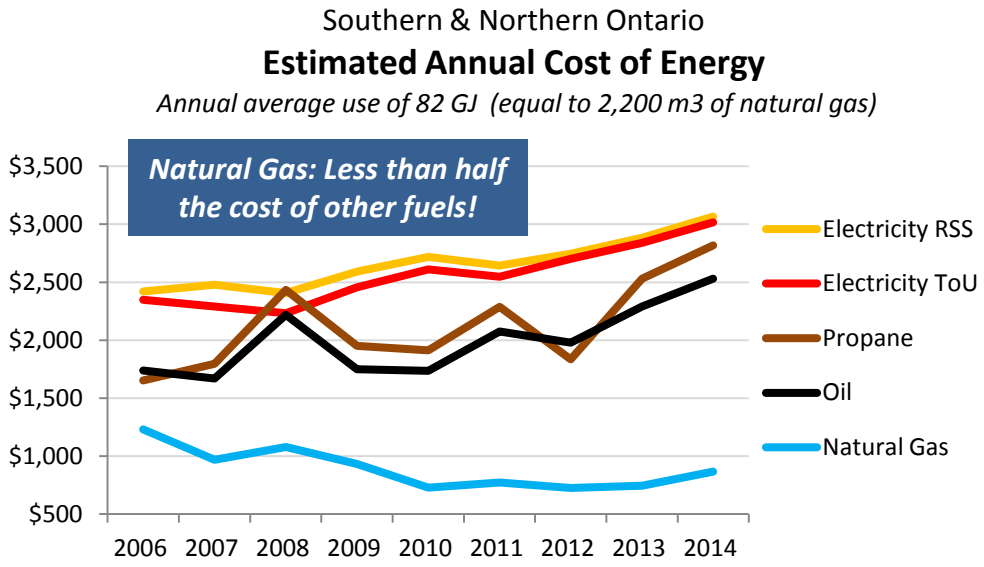
Distribution
Retail Customers: 2 million (*92% Residential)
Annual Throughput: 420 BCF
Distribution Pipe: 36,000km
Markets Served: Toronto, Barrie, Ottawa, Niagara
Storage
Capacity: 103 BCF



- Canada's largest Natural Gas Distribution company based in Ontario with 160 years of experience in safe and reliable service to our 2 million customers.
- Assets of $4.7 billion in Ontario and annual revenue of approximately $2.4 billion
- More than 2,200 employees in Ontario plus thousands of indirect employees
- Enbridge Gas Distribution is part of the Enbridge family of companies which also owns renewable and transmission pipeline assets in Ontario

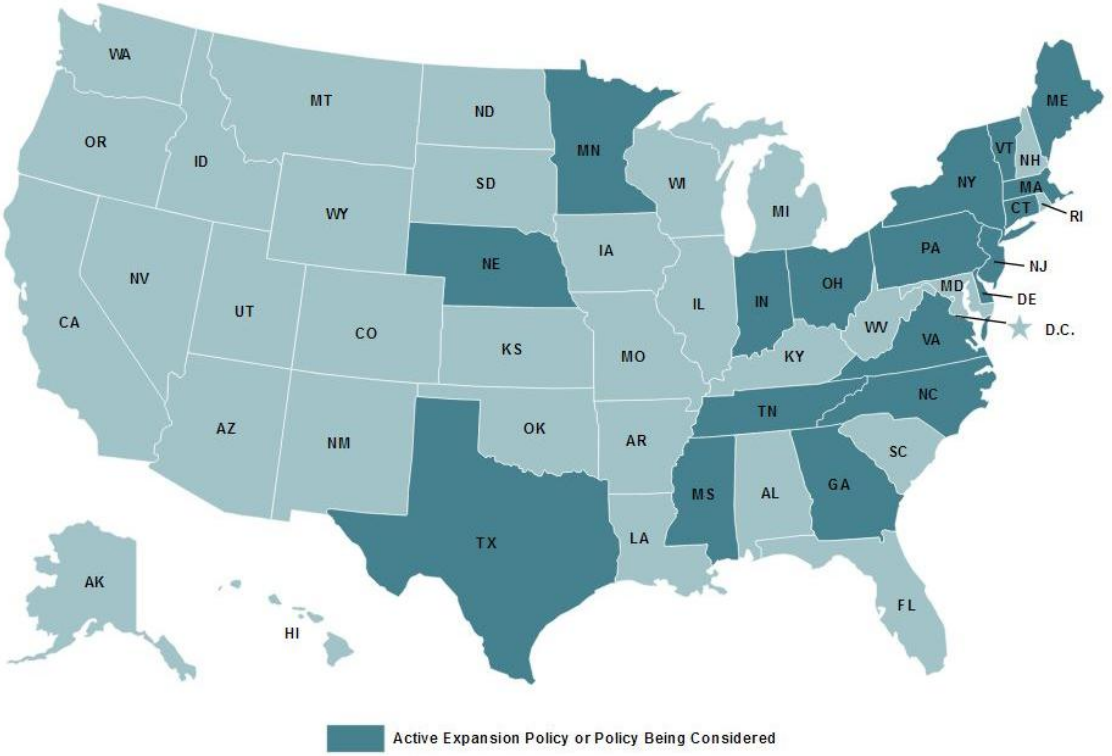
Background

- Escalation in energy prices for other fuels is creating unprecedented interest in conversion to natural gas
- Requests and detailed discussion with a number of municipalities
- Ontario Federation of Agriculture Provincial budget submission



- December, 2013 Provincial Long term Energy Plan commitment:
  - "The government will work with gas distributors and municipalities to pursue options to expand natural gas infrastructure to service more communities in rural and northern Ontario"

Other Jurisdictions



Source: Kyle Rogers, AGA, February, 2014

- 18 US States have adopted or are considering innovative natural gas infrastructure expansion programs
  - Recent examples: Washington, Georgia, Connecticut, Nebraska, Pennsylvania
- Natural gas increasingly viewed as an economic enabler

Activities to Date

- Joint discussion: EGD & Union Gas
- Analysis of potential scope; initial focus on connecting rural/northern towns and villages
  - Higher densities provide more “bang for the buck”
  - Can enable further stages for non-urban residents and farms
- Discussions with several Ministries regarding opportunities and barriers; Ministry of Energy focal point due to LTEP commitment
- Specific Ministry of Energy dialogue on possible Program Outline
- Dialogue with OFA on non-urban opportunities
- Alignment with OFA on community proposal as a sensible first stage

Rural/Northern Towns and Villages
Scale and Barriers

Potential Scale

- ~30 community projects >500 homes/businesses; ~100 with >100 homes/businesses
- Natural Gas access potential for a population of up to 140,000

Barriers

- Economic Feasibility
  - ~30 km average from existing gas system
- Regulatory Flexibility
  - Very few communities meet minimum economic feasibility standards set by OEB
  - Prohibitive up-front contributions necessary

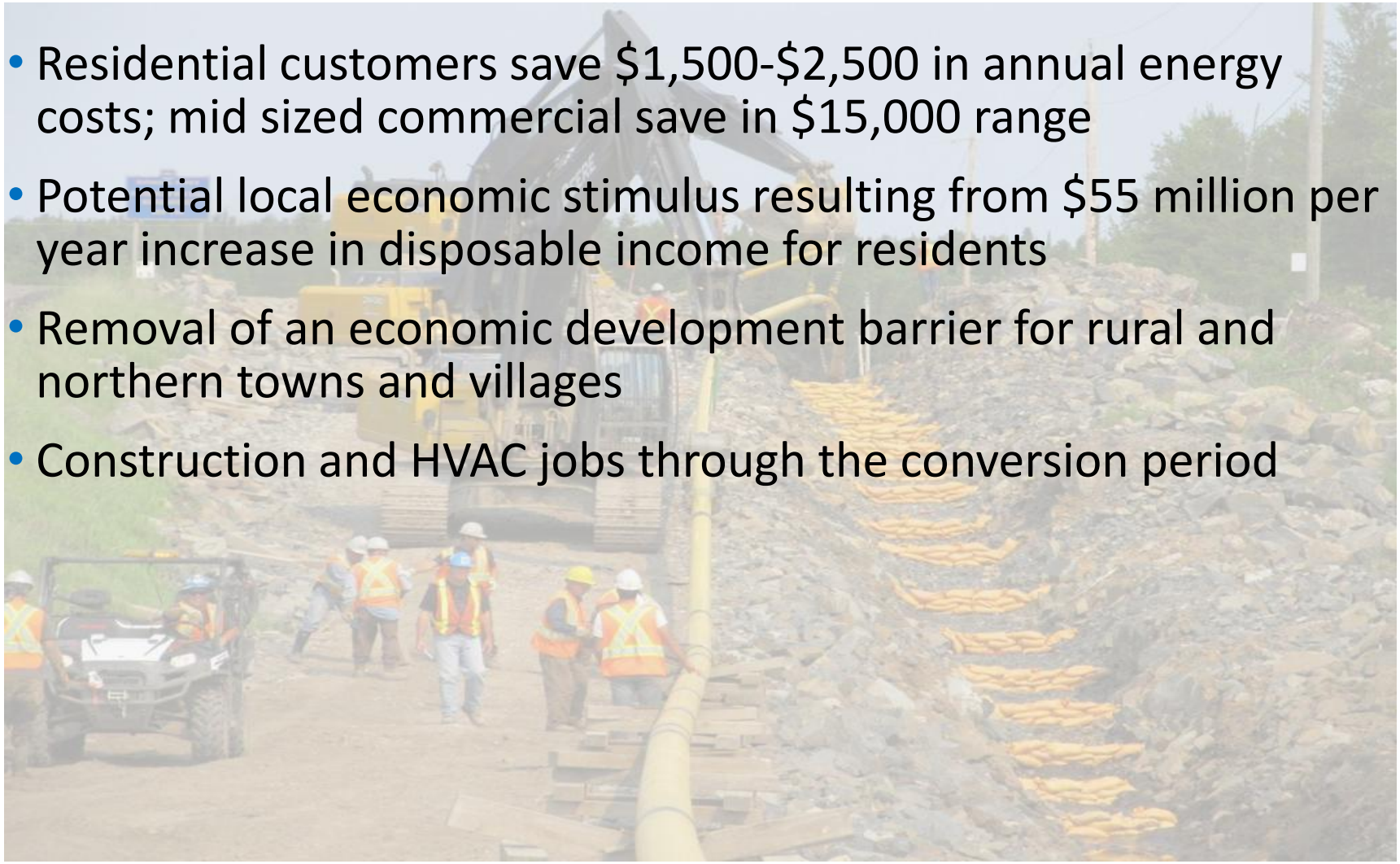
Suggested Principles

- Each of the major beneficiaries of extended gas infrastructure contribute towards the cost:
  - Province
  - Municipalities/First Nations
  - Conversion Customers
  - Gas Utility
- Equal access principle is a key factor in infrastructure expansion design; with upper limit cross subsidization threshold established to minimize impact on existing natural gas customer base.
- Utility partners will not be exposed to additional financial risk related to the incremental capital investment.

Program Outline

- Up to:
  - 55 communities serviced
  - 55,000 homes and business given access to natural gas
  - $55 million per year in energy savings for community members

Benefits



- Residential customers save $1,500-$2,500 in annual energy costs; mid sized commercial save in $15,000 range
- Potential local economic stimulus resulting from $55 million per year increase in disposable income for residents
- Removal of an economic development barrier for rural and northern towns and villages
- Construction and HVAC jobs through the conversion period

Enabling Expansion: Requirements

- Direct Provincial funding: $55 million/year for 5 years ($275 million total)
- Regulatory Flexibility:
  - Capital Pass-Through treatment in rate setting
  - Variance from current guidelines
    - Minimum economic thresholds at Project, Investment Portfolio and Rolling Project Portfolio levels
  - Enable flexibility in means of collecting, and treatment of, conversion customer and/or municipal contributions
    - Temporary “Community Expansion Surcharge” treated as regulated revenue for ratemaking purposes

Notional Funding Model

- Up to $800 million in infrastructure investment over 5 years
- Average per residential customer:

Gross Capital per customer	**$14,000**
Funding: Gas Distributor Investment	
Within current regulatory framework	$5,000
Incremental via relaxed regulatory PI requirements	$1,500
Incremental via expansion area customer surcharge	$2,000
Incremental via Municipal property tax rebate	$500
Remaining Gap: Province of Ontario contribution	$5,000

Next Steps

- Community Program
  - "Tabletop" quantification of community potential
  - Firm indication of Provincial funding commitment (Provincial Budget)
  - Understand required regulatory process
  - Detailed Program Design
- Future Non-Urban stage quantification and initial Program Outline development

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uniongas
A Spectra Energy Company

1. ***At a high level, can you describe the current process for expanding into a community that currently does not have gas service?***

    a. ***Does the company target communities and proactively pursue expansion opportunities or does the community need to contact the company?***

Both utilities have not proactively solicited interest from communities in the past few years to avoid building expectations when projects generally do not appear economically feasible.

Dialogue with an interested community is most often triggered by a potential customer in the community and/or local municipal officials. In cases where several potential customers in the same area have approached the utility, local gas utility representatives may approach the community leaders to initiate a more formal dialogue. If significant interest is believed to exist, the utilities, often in partnership with the community, undertake market area surveys to understand the degree of interest and develop a potential forecast of customers who would connect to the system over a 10 year period. While this process is underway, preliminary system design and cost estimates are established. The results of these two streams of work underlie an initial economic analysis to determine if the expansion project is feasible given criteria established by the OEB. This preliminary analysis will identify whether specific economic contributions from any combination of prospective customers, the municipality, or other parties are required.

If the preliminary project economics, after including other economic contributions, are favourable, the utility undertakes an environmental assessment and direct engagement with community members, leading to detailed costing and a decision whether to proceed with the project. If a project meets OEB established Leave to Construct criteria (i.e. cost over $2 million, over 20 km in length, greater than 300 mm in diameter, or will operate at 2,000 kPa or greater), or if a new municipal franchise and/or Certificate of Public Convenience and Necessity are required, the project is filed with the OEB in order to obtain approval to proceed. Otherwise the utility can elect to proceed without engaging the OEB, provided regulatory requirements are met.

Once the decision to proceed is made and, if required, approved by the OEB, construction can begin along with execution of an associated marketing plan to have customers connect.

2. ***What would you change in the regulatory or other process to connect communities?***

    a. ***How would these changes make it easier to expand?***

    b. ***How many communities that would not otherwise have received service be connected as a result of these changes? How many customers?***

The key barrier to community expansion is that the identified projects generally do not meet specific economic threshold requirements established by the OEB. These thresholds are based on the outcomes of a discounted cash flow analysis which incorporates the costs and revenue streams that would result from each project. Because of the distances from existing natural gas infrastructure, the projects are less economic than those undertaken historically, and would require direct economic contributions from the potential customers that would be quite prohibitive. Despite the high costs, residential customers that

convert to natural gas can save $1,500-$2,500 per year in energy costs. For this reason the utilities have suggested that the Government of Ontario recognize these benefits as an economic stimulus that could be unleashed in these rural and northern communities, by both providing direct economic support, and easing related regulatory barriers to enable the projects.

The gas utilities believe that despite the challenging economics, natural gas can be used as an economic enabler for rural towns and villages that do not currently enjoy its benefits. With this in mind, program ideas have been defined that would satisfy several key principles:

i. Each of the major beneficiaries of extended gas infrastructure contribute towards the cost:
    a. Province
    b. Municipality/First Nations
    c. Customers
    d. Gas Utility

ii. Equal access principle is a key factor in infrastructure expansion design; with upper limit cross subsidization threshold established to minimize impact on existing natural gas customer base.

iii. Utility partners will not be exposed to additional financial risk related to the incremental capital investment.

In recognition of these principles, the utilities are suggesting a **55^3 program**. The plan *enables perpetual energy cost savings of up to $55 million each year by providing expanded access to natural gas for an additional 55,000 homes and businesses in up to 55 communities*. This occurs as a result of annual investments of $55 million by both the province and the combined gas utilities each year, over a 5 year period. Very few of these communities would be connected to natural gas without this type of support.

To enable the plan, the following actions by the province are suggested below, with rationale for each following:

- Direct Funding: $55 million in direct funding each year for 5 years, totalling $275 million, and
- Directives to OEB to allow for:
    - Limited cross subsidization of new expansions from existing ratepayers provided resulting annual delivery cost impact is limited to 1.0% increase, which is less than 0.5% of the total bill ($3.50/year for residential customers);
    - Capital pass through to allow recovery in rates, including any expected municipal and customer contributions, prior to the end of the Incentive Regulation (IR) period;
    - Modified community and portfolio minimum economic thresholds; and,
    - Expansion area customer construction surcharge collected through a fixed monthly or volumetric rate rider, applied until communities meet specific economic thresholds.

<u>Direct Funding</u>

Making a commitment for direct funding enables the Provincial Government to make a visible and lasting contribution to the betterment of rural and northern communities, and recognizes the traditional role that the Province plays in supporting economic development across the entire Province.

This support demonstrates the Government's commitment to supporting both the elimination of local economic development barriers, and the local economic stimulus as annual energy savings are redirected by customers into the community economies. In addition, direct support for this type of program demonstrates attention to a critical issue faced by rural and northern Ontario residents.

Cross Subsidization

In a survey undertaken in 2013, over 60% of customers in Union's franchise areas indicated that annual delivery rate increases at the rate of inflation are acceptable. Union is in an Incentive Regulation framework that allow for rate increases at less than half the rate of inflation. Based on this perspective there is room for minimal rate increases to support broader societal benefits across the Province. Assuming inflation is targeted at around 2% over a 5 year period, half this amount has been suggested as a ceiling. This would increase the combined utility revenue requirement by something in the range of $17 million per year, which generally would support incremental capital spending of $170 million.

Enbridge is currently engaged in a regulatory proceeding to finalize an Incentive Regulation framework for the same time period, and believe rate impacts of similar magnitude would be supportable.

Allowing for limited cross subsidization within each utility from existing ratepayers provides a means for economic test thresholds to be relaxed (further specifics are provided in the "Economic Thresholds" section below). The amount of rate impact would be affected by the level of direct provincial funding committed, and the degree of relaxation in economic test threshold requirements deemed acceptable. The exact amount would be based specifically on the revenue requirement to support the actual capital invested each year.

Capital Pass-Thorough

Union entered a five year Incentive Regulation (IR) framework in 2014, and Enbridge is currently engaged in a proceeding to establish one. The incremental capital investment for a broad community expansion program has not been anticipated in entering these frameworks. Consequently return on equity for the incremental investment would not be reflected in utility rates until they are reset in the next Cost of Service rebasing, in 2019. Although there is a "Y Factor" in the regulatory framework for exceptions, the threshold is too high for most of the anticipated projects to qualify. Specific direction to allow each of these projects to qualify for this treatment is required to eliminate this barrier.

Economic Thresholds

Current minimum economic test thresholds are a result of the OEB EBO188 decision, published in 1998. In summary, the thresholds include the following:

- The distribution New Business Investment Portfolio (NBIP) for a given year requires a positive net present value. To achieve this, the ratio of the net present values of cash inflows /cash outflows, commonly called the Profitability Index (PI), must be above 1.0 plus a safety factor. Consequently a minimum PI of 1.1 is used by both utilities.
- A Rolling Project Portfolio (RPP), which includes the expected cash inflows and outflows for all projects that require distribution main for the most recent 12 month period, requires a positive net present value, or a minimum PI of 1.0 be maintained.

- For inclusion in both portfolios, individual projects can be completed with a minimum PI of 0.8, after netting off any direct contributions towards construction costs, provided the above portfolio requirements can be met.

Relaxation of these thresholds would enable limited amounts of cross subsidization from existing ratepayers as noted above. In theory, if the Portfolio PI drops below 1.0, cross subsidization from existing ratepayers over the longer term is required. The lower this threshold becomes, the farther the utilities can expand access, and the greater the requirement for cross subsidization from existing ratepayers. Relaxation of these thresholds will provide a secondary benefit as well, through greater flexibility in program approach.

For example, at current prices and a PI of 0.8, residential customer revenue streams can support a capital investment of about $5,000 per customer for extension of natural gas to a community. Reducing the minimum PI threshold to 0.6 increases this supportable capital investment to about $6,500 per customer. Preliminary projections of the impact on utility NBIP results, however, indicate that some PI's would drop to as low as a 0.9. Relief from the NBIP and RPP PI requirements would be required to enable this incremental investment by the utilities.

Expansion Area Customer Construction Surcharge

A portion of the annual savings expansion area customers will see after being attached can be allocated toward an additional contribution to project economics as a means of satisfying one of the key principles underlying the proposal. This can be facilitated through the application of a temporary volumetric or fixed surcharge on monthly bills, which would remain in place from the first bill, until customer contribution level targets for each project are met. Surcharges of this form would be treated as regulated revenue for rate-making purposes both during IR and during rebasing. The value of this surcharge would be included in utility rate base until it is recovered by billing the customers.

Generally, the utilities envision that the amount that appears as a separate line on each bill would be based on a general principle that residential customers should be able to recognize their total cost of conversion providing a pay-back period of 3-4 years or less. As a result, it's expected that the amount of surcharge for each residential customer would have a present value of $1,000 to $2,000. The surcharge would be presented as a separate line item on the bill, perhaps called a "Community Expansion Surcharge".

The surcharge amount (per month or per cubic meter) would be set based on a given number of years anticipated recovery period, say for example 5 years, but the exact length of time it would remain in place would vary. If expansion customers attach to the system more quickly than forecasted, the surcharge would be terminated earlier, and vice-versa.

Although both Enbridge and Union have in the past applied fixed monthly or up-front surcharges of a similar nature for specific expansion projects with the approval of the OEB, a volumetric based surcharged has never been approved. Providing clarity that the utilities can apply this additional revenue stream will improve the feasibility of the program.

Municipal Financial Support

The utilities also believe that municipalities should be prepared to contribute financially, since they will benefit from the local economic stimulus brought about by the energy cost savings, as well as the removal of a key local economic development barrier. In recognition of Provincial funding support, the communities may be prepared to rebate the annual property tax payments typically made by the utilities for the pipelines installed, until such time as the community reaches set customer and municipal surcharge targets as noted above. Similar to the expansion area customer surcharge concept above, this rebate would be treated as regulated revenue for rate-making purposes both during IR and during rebasing, and included in utility rate base until it is recovered by billing the municipality.

Beyond the tax rebate, communities could improve their prospects of funding support through either direct financial contributions, or helping to mitigate some of the capital costs (for example providing favourable running lines, or construction clean up, pavement repairs, and sod replacement). It may be possible for communities to use Local Improvement Charges to fund some of these actions and offer customer financing of the actual equipment conversion costs.

Summary

The utilities feel that the above noted funding and enabling directives, taken together, are necessary to improve project feasibility which in turn can unleash the economic benefits of natural gas for rural and northern towns and villages. In summary, the proposed funding model, on an average per residential customer basis, is provided below:

Gross capital required:	**$14,000**
Funding:	
Utility investment within current regulatory framework	$5,000
Incremental utility investment through relaxed regulatory (EBO188) PI requirements	$1,500
Expansion area customer surcharge	$2,000
Municipal property tax rebate	$500
Remaining gap: Province of Ontario contribution	$5,000

Note that in the above funding model, averages are used, but in order to reach the number of customers anticipated, a wide range will exist for both the required gross capital per customer and the Province of Ontario contribution. At a community level, limiting the available funding to a maximum of $5,000 per customer would significantly reduce both the number of communities and the customers that the program could reach.

3. What are your expansion plans for unserved communities over the next 5 years (i.e., which municipalities, how many customers)?

As requests from a few communities began to surface over the past year, it became evident that interest in getting access to natural gas infrastructure was increasing. This potential project list was developed as a first step in trying to understand possible scale of a broader community expansion effort. Appendix A provides a list of potential community expansion projects prepared jointly by Enbridge and Union Gas. This list is preliminary in nature, is not prioritized in any way, and should be used only to provide directional information. In the absence of financial support along with other enabling support from the Provincial Government, very few of the potential projects will ever proceed. Consequently, specific expansion plans for both utilities are very limited at this point.

4. Can you identify which unserved communities (and how many customers) have been connected in the last 10 years.

Very few larger scale community expansion projects have occurred in the past decade, primarily as a result of challenges related to project economic feasibility. With the exception of the two communities listed below, expansions have been limited to a few remote subdivisions. Both the Red Lake and Alfred-Plantagenet projects required a Leave to Construct application with the OEB.

Year	Utility	Community	Gross Capital / Customer Forecast
2007	Enb	Alfred-Plantagenet	$6.7M / 1,100 customers
2012	UGL	Red Lake, Balmertown, Cochenour	$12.5M / 1,577 customers

5. Can you breakdown the components of an expansion project? What are the typical costs for each component? What components do you fund? Who typically funds the other components?

- Supply pipelines and gas control stations: Typically a higher pressure steel pipeline to move gas from the point of supply to the edge of town, along with related gas pressure control equipment at each end of the supply pipeline. Costs, excluding the pressure control equipment, can range from $35,000 to $500,000 per kilometre, depending on material (steel or plastic), diameter, and local ground condition.
- System reinforcement: May be required on existing supply system to ensure adequate supply availability at the point of connection to the existing gas system. Need is very situation specific, dependant on pressures and required volumes available at the point of connection. If reinforcement is required, costs can vary dramatically depending on the capacity requirements and location of connection.

- Distribution Mains: Typically intermediate pressure pipelines, in large part plastic, installed along municipal roadways throughout the town. Costs range from $35,000 to $150,000 per kilometre, depending on diameter and local conditions.
- Services: Small plastic lines from the mains to each individual building. Typical costs for a residential attachment for an existing building range from $1,500 to $3,000, depending on local conditions. Commercial/Industrial services are sized and priced individually based on the unique customer load requirements.
- Meter and Regulators: Pressure control and measurement equipment at each building. Typical costs for a residential attachment are in the $250 range. Costs for commercial/industrial attachments vary widely, dependant on load requirements.

All the above components are initially fully funded by the utilities, unless the economics of a specific project require direct contributions from the new customers or other third parties. The utilities receive a return on their investment through regulated customer rates designed to allow for recovery of all prudent expenses plus a regulated return on equity.

Within each building customers are required to provide energy piping to the individual appliances, as well as the appliances themselves, at their own cost. In some cases existing piping and equipment can be converted from other fuels, in others the equipment has to be replaced. Costs for a residential home typically range from around $500 in the case of an existing convertible propane heating system, to $4,000 to replace a furnace and install piping. The exception to this range is where the existing system is electric baseboard heating, in which case costs are significantly higher if the customer decides to install a forced air heating system. In this situation some customers elect to install gas fireplaces used for zone heating. The customer bears all costs downstream of the meter directly.

6. What returns do you expect on a typical expansion project?

Both utilities expect to have the opportunity to earn their OEB prescribed regulated rate of return on equity for any projects. In recent years the regulated return has ranged from 8 to 10%.

The capital pass-through mentioned earlier is a key to ensuring the utilities can earn a short-term return on the incremental capital envisioned with this program.

7. Could you provide a live spreadsheet example of an economic feasibility analysis (PI and NPV analysis) of an actual expansion project to an unserved community that was approved by the OEB?

A discounted cash flow analysis quantifies the net present value of cash inflows and cash outflows for given time periods. The key variable inputs are project costs and sales volumes; most other input assumptions are based on either public information (weighted average cost of capital, tax rates), or criteria defined by the OEB (EBO 188 Board Decision, 1998).

In cases where a project requires approval by the OEB, the results from the calculations are filed in evidence. An example is provided in Appendix B; the outputs of the economic assessment for the most recent larger scale expansion project, to the community of Red Lake.

The spreadsheet tools are proprietary; they are quite complicated and require a high degree of training for proper use. For this reason they are not shared externally. However, if the Ministry is interested in modelling specific assumptions the utilities would be pleased to work together to do so.

APPENDIX A: Potential Gas Infrastructure Expansion Projects

Community		Population	Max Potential Customers	km from gas system or km of hp feed	Provincial Riding	Prov MPP	Prov Party
Alderville, Roseneath	UG	1,200	350	21	Northhumberland-Quinte West	Rod Milligan	PC
Algoma Mills	UG	300	102	12	Algoma-Manitoulin	Michael Mantha	NDP
Arnstein	UG	100	30	25	Parry Sound - Muskoka	Norm Miller	PC
Arrowland/Nakina	UG	1,000	393	76	Thunder Bay - Superior North	Hon. Michael Gravell	Lib
Astorville	UG	1,400	531	7	Nipissing	Vic Fedeli	PC
Back Rd- Timmins area	UG	400	160	2	Timmins-James Bay	Gilles Bisson	NDP
Bainsville	Enb	300	100	7	Stormont-Dundas-South Glengarry	Jim McDonell	PC
Bala Muskoka	UG	400	130	33	Parry Sound - Muskoka	Norm Miller	PC
Bancroft	UG	5,000	1,400	71	Prince Edward-Hastings	Todd Smith	PC
Barry's Bay	Enb	1,300	500	90	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Baysville Muskoka	UG	100	118	19	Parry Sound - Muskoka	Norm Miller	PC
Belwood	UG	2,700	1,050	17	Wellington-Halton Hills	Ted Arnott	PC
Bobcaygeon	Enb	4,400	1,700	30	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Brenman Lin, Severn Twp (Gravenhurst)	UG	100	38	2	Parry Sound - Muskoka	Norm Miller	PC
Cambray	Enb	1,000	400	10	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Camden East, Yarker, Tamworth, Erinsville	UG	5,100	1,981	47	Lanark-Frontenac-Lennox and Addington	Randy Hillier	PC
Cameron	Enb	300	100	10	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Canal, Gravenhurst	UG	500	160	2	Parry Sound - Muskoka	Norm Miller	PC
Cedar Springs	UG	1,000	400	1	Halton	Ted Chudleigh	PC
Centenial Cres, North Bay	UG	300	105	2	Nipissing	Vic Fedeli	PC
Chapleau	UG	2,800	1,106	125	Algoma-Manitoulin	Michael Mantha	NDP
Charlton	UG	188	101	9	Timiskaming--Cochrane	John Vanthof	NDP
Chippewa of the Thames First Nation- phase 3 & 4	UG	945	61	3	Lambton-Kent-Middlesex	Monte McNaughton	PC
Chippewas of the Saugeen	UG	700	273	3	Huron-Bruce	Lisa Thompson	PC
Chukuni Subdivision (Red Lake area)	UG	300	100	0	Kenora-Rainy River	Sarah Campbell	NDP
Chute-a-Blondeau	Enb	500	200	10	Glengarry-Prescott-Russell	Grant Crack	Lib
Coboconk	Enb	1,000	400	40	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Consecon- Ameliasburgh, Rossomore	UG	3,600	1,170	33	Prince Edward-Hastings	Todd Smith	PC
Cotnam Island	Enb	300	100	10	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Curran	Enb	300	100	5	Glengarry-Prescott-Russell	Grant Crack	Lib
Dorset	UG	90	104	41	Parry Sound - Muskoka	Norm Miller	PC
Douglas	Enb	500	200	20	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Duchesnay Village North Bay	UG	100	63	3	Nipissing	Vic Fedeli	PC
E Floral (T Bay area)	UG	300	100	0	Thunder Bay - Superior North	Hon. Michael Gravell	LIB
Eganville	Enb	1,800	700	40	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Emsdale Muskoka	UG	100	28		Parry Sound - Muskoka	Norm Miller	PC
Enniskillen	Enb	500	200	10	Durham	John O'Toole	PC
Fenelon Falls	Enb	4,600	1,800	25	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Field	UG	300	106	10	Timiskaming--Cochrane	John Vanthof	NDP
First Nations/Metis communities (11 areas supplied via CNG/LNG): Pays Platt, PIC Mobert, Grassy Narrows, Wabaseemoong, Lac Seul, Manitoulin Island, Nicickousemenecaning, Naicatchewenin, Stanjikoming, Big Grassy, Rainy River	UG	19,500	7,617		Various		
Garden Village (Promenade-de-lac)	UG	400	135	9	Timiskaming-Cochrane	John Vanthof	NDP
Gores Landing	UG	1,100	443	11	Northhumberland-Quinte West	Rod Milligan	PC
Goulais River	UG	1,000	395	15	Algoma-Manitoulin	Michael Mantha	NDP
Hagar	UG	210	67	1	Timiskaming--Cochrane	John Vanthof	NDP

Enbridge / Union Gas

Gas Expansion Follow-Up Questions

Community		Population	Max Potential Customers	km from gas system or km of hp feed	Provincial Riding	Prov MPP	Prov Party
Haliburton	Enb	2,000	800	100	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Haydon	Enb	300	100	10	Durham	John O'Toole	PC
Hidden Valley/Huntsville	UG	200	80	3	Parry Sound - Muskoka	Norm Miller	PC
Hilton Beach	UG	300	124	25	Algoma-Manitoulin	Michael Mantha	NDP
Hornby	UG	100	44	1	Wellington-Halton Hills	Ted Arnott	PC
Hornepayne	UG	400	165	63	Algoma-Manitoulin	Michael Mantha	NDP
Hoyle	UG	97	33	0	Timmins-James Bay	Gilles Bisson	NDP
Jorgues (south of Hearst)	UG	200	70	14	Timmins-James Bay	Gilles Bisson	NDP
Kaministiquia	UG	100	30	11	Thunder Bay - Superior North	Michael Gravelle	LIB
Keast and South Bay Rd, Sudbury	UG	200	50	3	Sudbury	Rick Bartolucci	Lib
Kinburn/Fitzroy Harbour	Enb	1,300	500	15	Carleton-Mississippi Mills	Jack MacLaren	PC
Kincardine. Tiverton, Paisley, Chesley	UG	11,000	8,331	78	Huron-Bruce	Lisa Thompson	PC
Kinmount	Enb	500	200	60	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Kirkfield	Enb	2,000	800	25	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Lagoon City (Orillia)	UG	1,500	970	23	Simcoe-North	Garfield Dunlop	PC
Lambton Shores, Kettle Point First Nation	UG	950	620	5	Lambton-Kent-Middlesex	Monte McNaughton	PC
Lanark & Balderson	Enb	1,000	400	12	Lanark-Frontenac-Lennox & Addington	Randy Hillier	PC
Larder Lake	UG	1,251	548	32	Timiskaming--Cochrane	John Vanthof	NDP
Latchford, Tri Town	UG	500	191	6	Timiskaming--Cochrane	John Vanthof	NDP
Lavigne	UG	200	69	13	Timiskaming--Cochrane	John Vanthof	NDP
Leaskdale	Enb	500	200	8	Durham	John O'Toole	PC
Little Current	UG	1,442	612	28	Algoma-Manitoulin	Michael Mantha	NDP
Little Longlac	UG	64	22	1	Thunder Bay - Superior North	Hon. Michael Gravell	Lib
Long Lake Phase 3, Sudbury	UG	300	100	2	Nickel Belt	France Gelinas	NDP
Mactier (Parry Sound)	UG	100	32	30	Parry Sound - Muskoka	Norm Miller	PC
Madsen	UG	245	77	8	Kenora-Rainy River	Sarah Campbell	NDP
Manitouwadge	UG	2,100	831	42	Algoma-Manitoulin	Michael Mantha	NDP
Marathon	UG	3,300	756	77	Thunder Bay - Superior North	Hon. Michael Gravell	LIB
Massey	UG	900	367	23	Algoma-Manitoulin	Michael Mantha	NDP
Maxville	Enb	1,000	400	10	Glengarry-Prescott-Russell	Grant Crack	Lib
McKenzie Island	UG	244	74	1	Kenora-Rainy River	Sarah Campbell	NDP
Milverton, Wartburg, Rostock	UG	1,200	1,082	21	Perth - Wellington	Randy Pettapiece	PC
Minden	Enb	1,300	500	75	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Moffat	UG	200	83	1	Halton	Ted Chudleigh	PC
Munsee Delaware First Nation	UG	200	78	3	Lambton-Kent-Middlesex	Monte McNaughton	PC
Neustadt	UG	700	260	12	Bruce-Grey-Owen Sound	Bill Walker	PC
Newboro	UG	275	128	61	Leeds-Grenville	Steve Clark	PC
Nipissing	UG	200	81	25	Nipissing	Vic Fedeli	PC
Nipissing Fist Nation- phase 1	UG	1,400	63	0	Timiskaming--Cochrane	John Vanthof	NDP
Nobel (Parry Sound)	UG	321	185	2	Parry Sound - Muskoka	Norm Miller	PC
Norland	Enb	500	200	50	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Northshore Rd, Portage, North Bay	UG	900	306	12	Nipissing	Vic Fedeli	PC
Oneida First Nation	UG	750	293	3	Lambton-Kent-Middlesex	Monte McNaughton	PC
Picton- Cherry Valley	UG	1,000	376	8	Prince Edward-Hastings	Todd Smith	PC
Port Loring	UG	200	75	25	Parry Sound - Muskoka	Norm Miller	PC

Enbridge / Union Gas

Gas Expansion Follow-Up Questions

Community		Population	Max Potential Customers	km from gas system or km of hp feed	Provincial Riding	Prov MPP	Prov Party
Prince Township, Sault Ste Marie	UG	300	105		Algoma-Manitoulin	Michael Mantha	NDP
Red Rock First Nation	UG	300	100	3	Thunder Bay - Superior North	Hon. Michael Gravell	LIB
Redbridge	UG	300	135	20	Nipissing	Vic Fedeli	PC
Restoule	UG	100	38	30	Nipissing	Vic Fedeli	PC
Ripley,Lucknow	UG	1,100	916	31	Huron-Bruce	Lisa Thompson	PC
Roblin, Marbank	UG	1,700	665	24	Prince Edward-Hastings	Todd Smith	PC
Rockton	UG	200	63	14	Ancaster-Dundas-Flamborough-Westdale	Hon. Ted McMeekin	LIB
Rosseau (Parry Sound)	UG	300	91	40	Parry Sound - Muskoka	Norm Miller	PC
Sandford	Enb	500	200	10	Durham	John O'Toole	PC
Santa's Village/Beaumont Dr, Bracebridge	UG	400	121	6	Parry Sound - Muskoka	Norm Miller	PC
Sarsfield	Enb	500	200	10	Glengarry-Prescott-Russell	Grant Crack	Lib
Schrieber	UG	1,600	621	14	Thunder Bay - Superior North	Hon. Michael Gravell	Lib
Scugog Island	Enb	1,500	600	8	Durham	John O'Toole	PC
Serpent River	UG	329	140	14	Algoma-Manitoulin	Michael Mantha	NDP
Sheffield	UG	100	32	6	Ancaster--Dundas--Flamborough--Westd	Hon. Ted McMeekin	LIB
Sioux Lookout	UG	1,900	751	70	Kenora-Rainy River	Sarah Campbell	NDP
South Glengary	Enb	500	200	10	Stormont-Dundas-South Glengarry	Jim McDonell	PC
Spanish	UG	600	230	44	Algoma-Manitoulin	Michael Mantha	NDP
Spragge	UG	316	136	9	Algoma-Manitoulin	Michael Mantha	NDP
St Charles, Sudbury	UG	200	50	13	Timiskaming--Cochrane	John Vanthof	NDP
St Isidore	Enb	1,000	400	10	Glengarry-Prescott-Russell	Grant Crack	Lib
Swiss Meadow	UG	500	184	4	Simcoe-Grey	Jim Wilson	PC
Sydenham, Harrowsmith, Verona	UG	11,600	2,500	18	Lanark-Frontenac-Lennox and Addington	Randy Hillier	PC
Terrace Bay	UG	2,000	581	108	Thunder Bay - Superior North	Hon. Michael Gravell	Lib
Thunder Lake & Meadows (Dryden area)	UG	400	150	2	Kenora-Rainy River	Sarah Campbell	NDP
Turkey Point	UG	1,900	750	5	Haldimand-Norfolk	Toby Barrett	PC
Tweed-Thomasburg	UG	900	355	12	Prince Edward-Hastings	Todd Smith	PC
Udora	Enb	1,000	400	8	Durham	John O'Toole	PC
Village of Warwick	UG	100	100	18	Lambton-Kent-Middlesex	Monte McNaughton	PC
Virginiatown	UG	1,439	558	12	Timiskaming--Cochrane	John Vanthof	NDP
Wabauskang First Nation	UG	100	35	5	Kenora-Rainy River	Sarah Campbell	NDP
Wabigood First Nation	UG	300	114	30	Kenora-Rainy River	Sarah Campbell	NDP
Wabigoon	UG	400	149	15	Kenora-Rainy River	Sarah Campbell	NDP
Wahnapitae First Nation	UG	100	39	20	Sudbury	Rick Bartolucci	LIB
Walpole Island First Nation- comm area	UG	1,900	70	5	Lambton-Kent-Middlesex	Monte McNaughton	PC
Washago	UG	350	150	7	Simcoe-North	Garfield Dunlop	PC
Wawa	UG	247	1,429	251	Algoma-Manitoulin	Michael Mantha	NDP
Webbwood	UG	452	180	9	Algoma-Manitoulin	Michael Mantha	NDP
Westmeath	Enb	500	200	10	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Westport	UG	680	337	8	Leeds-Grenville	Steve Clark	PC
Whitefish Falls	UG	127	46	19	Algoma-Manitoulin	Michael Mantha	NDP
Woodville	Enb	800	300	12	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Wroxieter/Gorrie/Fordwich	UG	1,700	671	23	Huron-Bruce	Lisa Thompson	PC
Zephyr	Enb	800	300	10	Durham	John O'Toole	PC
Total for communities >500 Cust	**34**	**100,612**	**38,330**				
Total for communities >100 Cust	**102**	**144,880**	**60,303**				
Total	**133**	**153,512**	**62,016**				
Occupants per houshold:		**2.56**					

APPENDIX B: Red Lake Expansion Project Economics

May 24, 2012

By COURIER and RESS

Neil McKay, Manager Natural Gas Applications
Ontario Energy Board,
Suite 2700, 2300 Yonge Street,
Toronto, Ontario.
M4P 1E4

RE: EB-2011-0040
Red Lake Project

Dear Sir:

This letter will update the Ontario Energy Board ("OEB") on Union Gas Limited ("Union") plans for Phase II of the Red Lake Project. This letter will also fulfill Conditions of Approval 1.1, 1.2, 1.5, 1.6, 1.7, 1.8 and 2.3 of the OEB's Leave to Construct Order regarding the project.

Union is proposing to commence construction of Phase II of the Red Lake Project on May 25, 2012. Phase II will provide distribution service to the residents of Red Lake. Union has worked with the Municipality of Red Lake in developing the detailed construction plans to serve the Municipality. Updated maps of the areas which Union is proposing to serve are attached as Appendix 1. These maps show some minor changes to the location of pipelines from Union's original pre filed evidence. There is one significant change in Union's construction plan from the pre filed evidence. Union is not proposing to construct a pipeline north from Cochenour. The purpose of that line was to provide service to a potential mine north of Cochenour which is still at the conceptual stage.

Union has completed an environmental review for Phase II, which is attached as Appendix 2. No significant environmental concerns were identified as part of this review. Union's standard construction practices and the mitigation measures outlined in the environmental checklist will ensure that there will be no long term significant environmental impacts as a result of pipeline construction.

Union has completed an economic analysis for Phase II as per the EBO 188 guidelines, which is attached as Appendix 3. This analysis was completed using the same input parameters as the Phase I analysis. This analysis is based on the project costs attached as Appendix 4, and an updated attachment forecast attached as Appendix 5. The attachment forecast has been updated based on discussions with Municipal officials who have provided Union with addition details regarding growth and conversion potential. Appendix 4 does not include the $7M that was spent as part of Phase I to facilitate Phase II. The total Phase II costs are approximately $19.3M.

P.O. Box 2001, 50 Keil Drive North, Chatham ON, N7M 5M1 www.uniongas.com
Union Gas Limited

Union has reviewed its rolling and investment portfolios and has determined that there will be no significant impact to Union's existing customers if Phase II of the Red Lake Project has a PI of 0.9. With a PI of 0.9 the economic analysis indicates that there is a $10.5M aid to construct. In order to fund this aid to construct, the following contributions will be made:

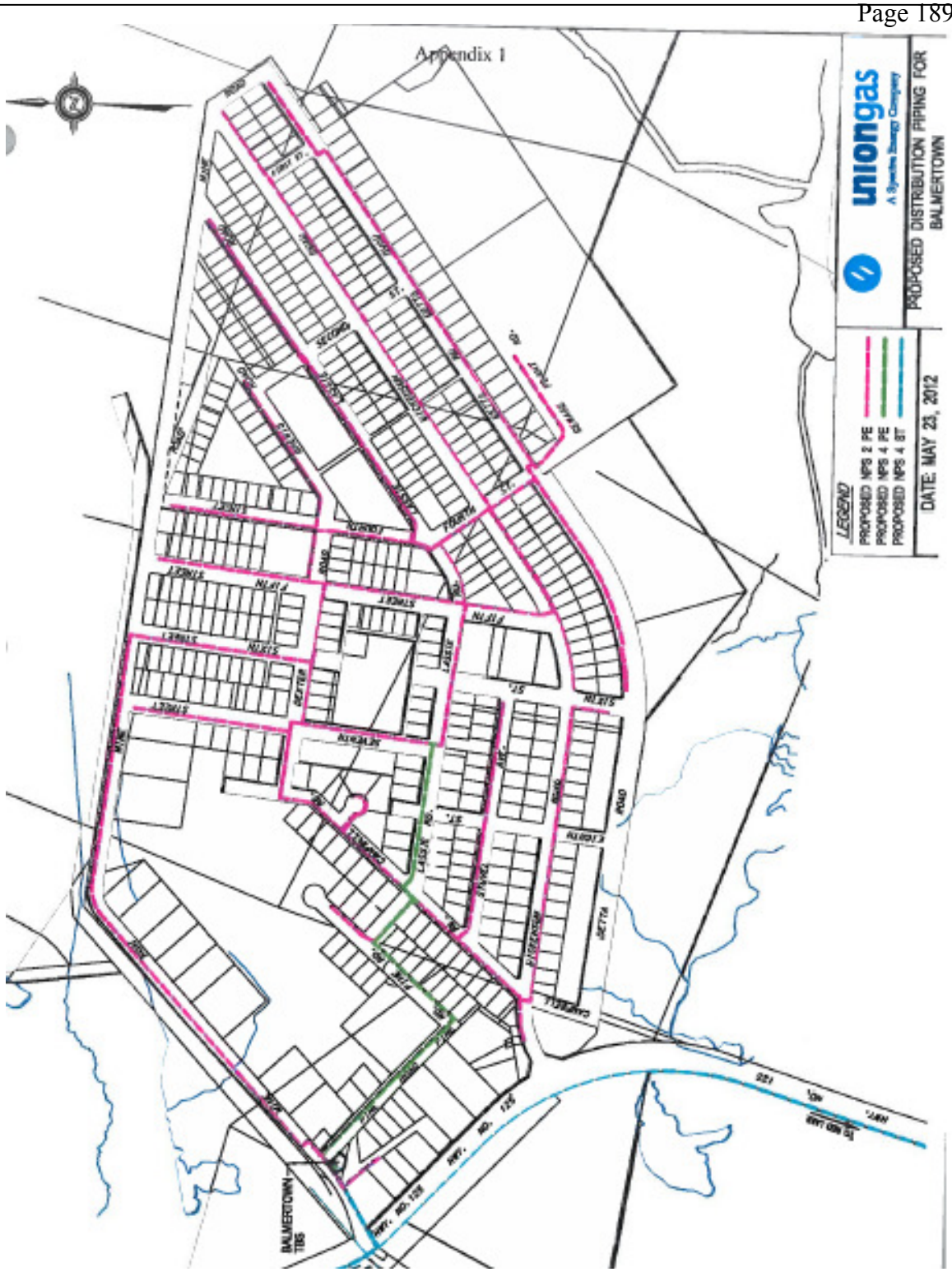
- The Province of Ontario will contribute $4.9M;
- FedNor is expected to contribute $2.7M;
- The Municipality of Red Lake will contribute $0.75M; and,
- Goldcorp Red Lake Mines will forgive $2.15M of the payment they made to upsize Phase I of the project.

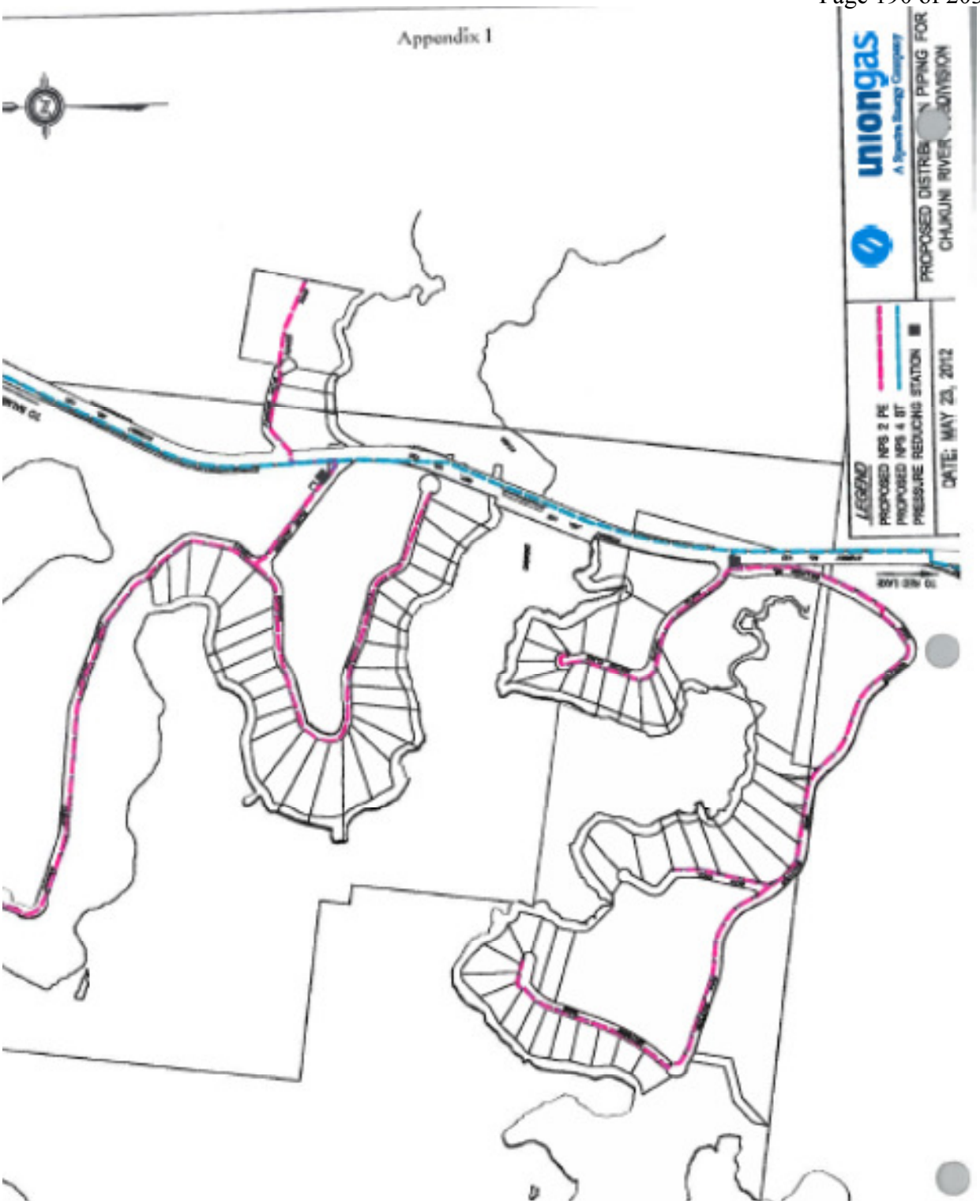
If you have any questions or require additional information please contact the undersigned.

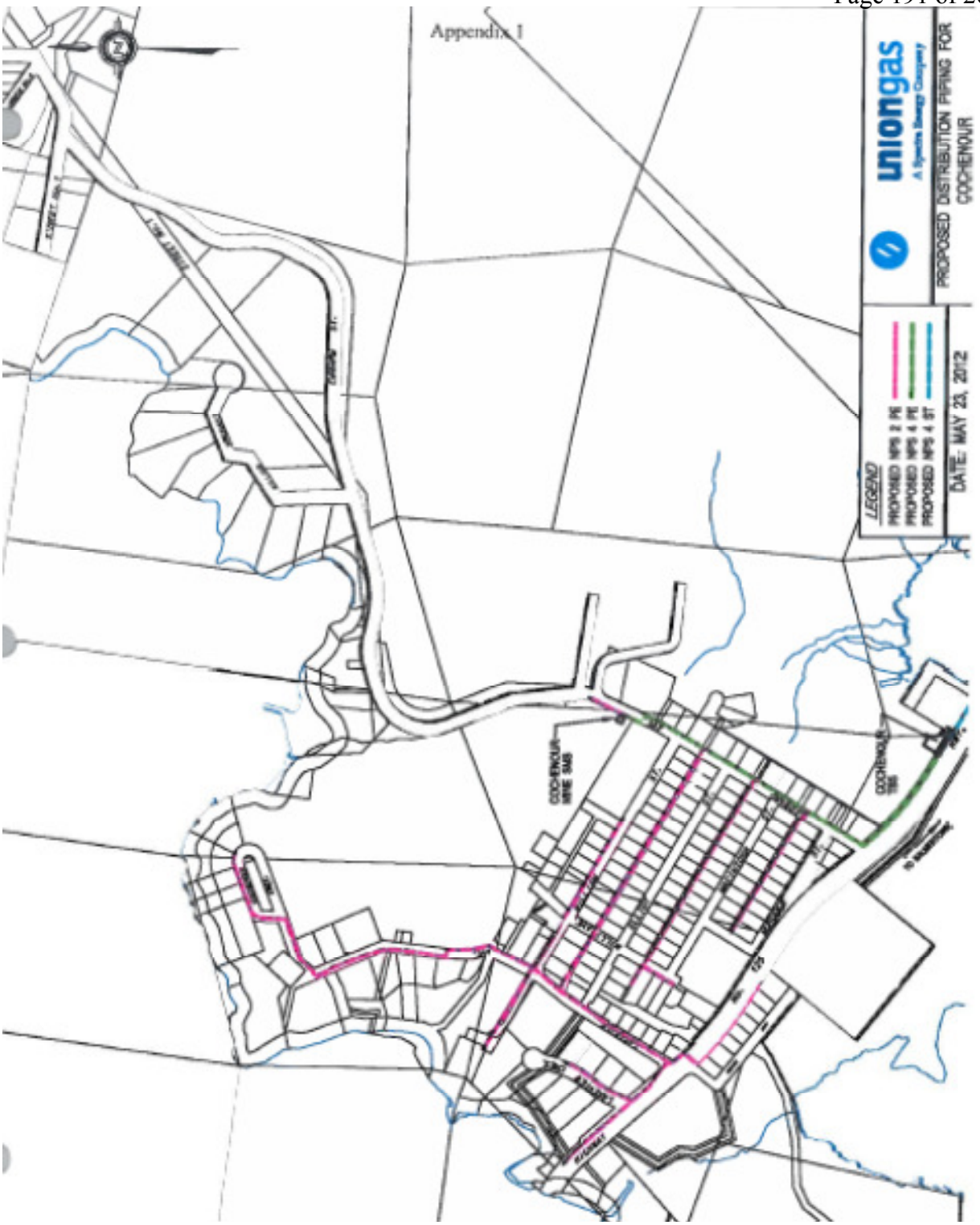
Yours sincerely

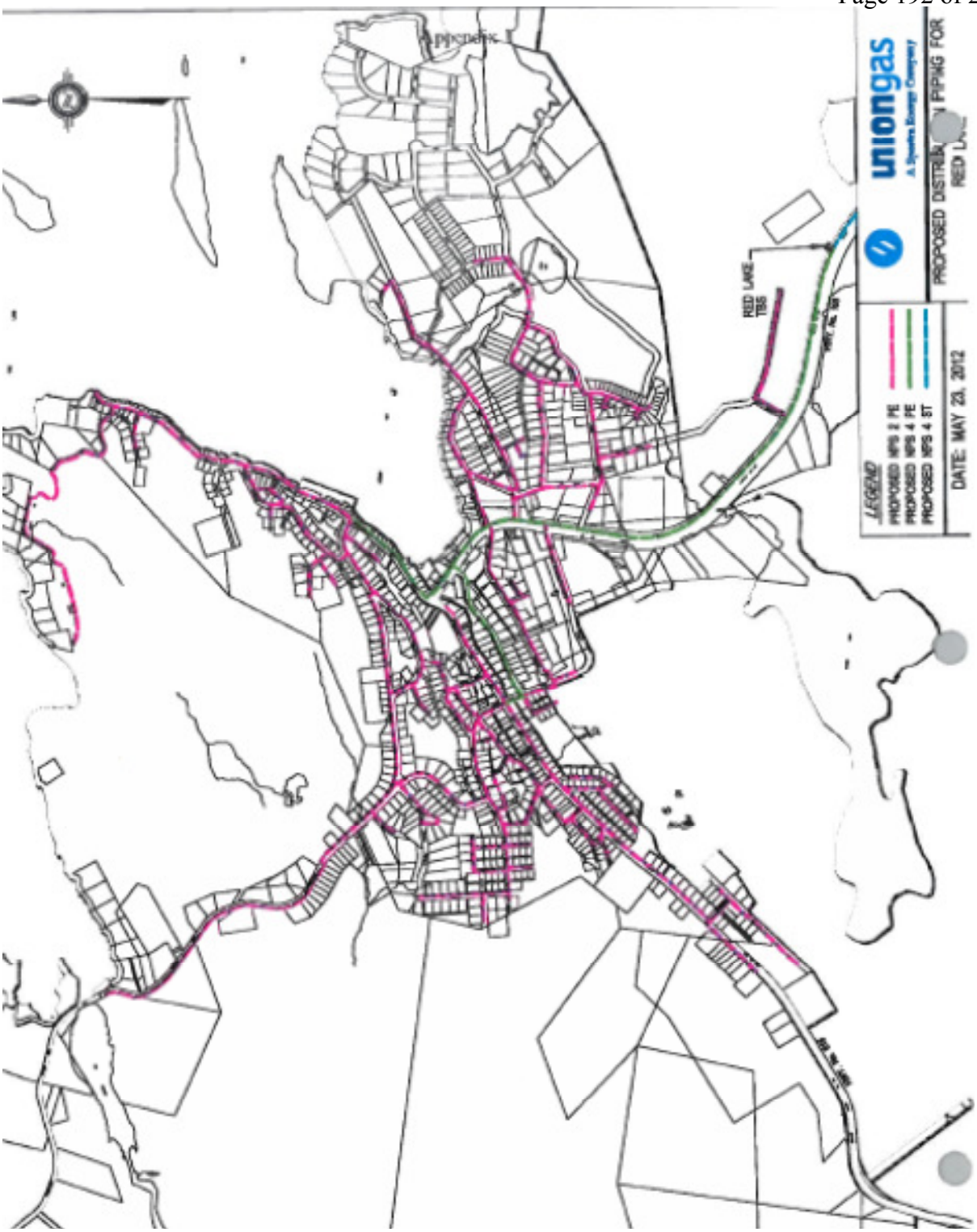
William Wachsmuth
Senior Administrator, Regulatory Projects
Encl.

cc. Zora Crnojacki, Chair OPCC


Appendix 1
uniongas
PROPOSED DISTRIBUTION PIPING FOR BALMERTOWN
DATE: MAY 23, 2012
LEGEND
PROPOSED NPS 2 PE
PROPOSED NPS 4 PE
PROPOSED NPS 4 ST
BALMERTOWN TBS


Appendix 1
uniongas
PROPOSED DISTRIB PIPING FOR
CHUKUNI RIVER SUBDIVISION
LEGEND
PROPOSED NPS 2 PE
PROPOSED NPS 4 ST
PRESSURE REDUCING STATION
DATE: MAY 23, 2012


Appendix 1
uniongas
PROPOSED DISTRIBUTION PIPING FOR COCHENOUR
LEGEND
DATE: MAY 23, 2012


uniongas
PROPOSED DISTRIBUTION PIPING FOR
RED LAKE
LEGEND
PROPOSED MPS 2 PE
PROPOSED MPS 4 PE
PROPOSED MPS 4 ST
DATE: MAY 23, 2012
RED LAKE TBS

Appendix 3
Page 1

Union North

Discounted Cash Flow Analysis

Red Lake Economics - Phase 2

May 24, 2012

Project Year	2011 Year 1	2012 Year 2	2013 Year 3	2014 Year 4	2015 Year 5
Cash Inflows					
Total Sales Margin	27,745	337,759	479,097	574,995	637,268
O & M Expense	-13,642	-37,201	-54,403	-66,546	-76,251
Property (Municipal) Tax	-15,000	-45,000	-45,000	-45,000	-45,000
Capital Tax	-2,098	-3,325	-4,092	-4,409	-4,679
Income Tax	30,039	-46,956	-49,680	-51,393	-58,916
Large Corporation Tax	0	0	0	0	0
Total Cash Inflow	$ 27,044	206,277	326,822	407,247	452,521
Cash Outflows					
Capital Expenditure	-6,558,918	-1,751,376	-1,251,147	-728,730	-542,467
Contribution	3,675,111	0	0	0	0
Change in Working Capital	-1,399	-5,589	-3,033	-2,102	-1,441
Total Cash Outflows	$ -2,885,206	-1,756,965	-1,254,185	-730,832	-563,909
Net Cash Flows	$ -2,858,162	-1,550,688	-927,363	-323,585	-111,387
NPV per Period	-2,846,378	-1,496,960	-846,979	-280,956	-91,733
Cumulative NPV	$ -2,846,378	-4,343,338	-5,192,317	-5,473,273	-5,565,006
Net Present Value Project	$ -798,604				
Profitability Index per Period		0.01	0.05	0.09	0.14
Profitability Index Project	0.90				

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	2016 Year 6	2017 Year 7	2018 Year 8	2019 Year 9	2020 Year 10	2021 Year 11	2022 Year 12
	693,051	725,228	757,341	783,985	808,570	820,863	820,863
	-84,342	-91,636	-98,224	-104,252	-110,199	-114,454	-116,898
	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000
	-4,649	-4,657	-4,599	-4,512	-4,431	-4,165	-3,916
	-65,816	-74,879	-82,401	-90,508	-99,106	-101,598	-108,000
	0	0	0	0	0	0	0
	485,243	509,056	527,117	539,713	549,834	555,645	547,049
	-446,247	-371,138	-286,131	-245,502	-245,502	0	0
	0	0	0	0	0	0	0
	-1,177	-887	-851	-745	-711	-447	-175
	-447,424	-372,123	-286,982	-246,247	-246,213	-447	-175
	37,819	136,933	240,135	293,466	303,621	555,198	546,874
	29,502	101,367	168,597	195,402	191,721	332,483	310,585
	-5,535,504	-5,434,137	-5,265,541	-5,070,139	-4,878,417	-4,545,934	-4,235,349
	0.23	0.27	0.31	0.35	0.39	0.43	0.47

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	2023 Year 13	2024 Year 14	2025 Year 15	2026 Year 16	2027 Year 17	2028 Year 18	2029 Year 19	2030 Year 20	2031 Year 21	2032 Year 22	2033 Year 23
	820,863	820,863	820,863	820,863	820,863	820,863	820,863	820,863	782,441	722,803	687,750
	-119,342	-121,786	-124,230	-126,674	-129,118	-131,562	-134,005	-136,449	-135,329	-132,219	-131,056
	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000
	-3,681	-3,460	-3,252	-3,057	-2,874	-2,701	-2,539	-2,387	-2,244	-2,109	-1,982
	-113,969	-119,530	-124,709	-129,527	-134,008	-138,179	-142,033	-145,615	-137,235	-122,154	-114,438
	0	0	0	0	0	0	0	0	0	0	0
	538,871	531,087	523,672	516,605	509,864	503,430	497,285	491,411	462,633	421,320	395,274
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	-175	-175	-175	-175	-175	-175	-175	-175	788	1,305	703
	-175	-175	-175	-175	-175	-175	-175	-175	788	1,305	703
	538,696	530,912	523,497	516,430	509,689	503,255	497,110	491,236	463,421	422,626	395,976
	290,136	271,173	253,573	237,228	222,037	207,909	194,761	182,518	163,266	141,235	125,469
	-3,945,213	-3,674,040	-3,420,467	-3,183,239	-2,961,203	-2,753,294	-2,558,532	-2,376,014	-2,212,717	-2,071,482	-1,945,993
					-788,604						
	0.50	0.54	0.57	0.60	0.63	0.65	0.68	0.70	0.72	0.74	0.76
					0.90						

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	2034 Year 24	2035 Year 25	2036 Year 26	2037 Year 27	2038 Year 28	2039 Year 29	2040 Year 30	2041 Year 31	2042 Year 32	2043 Year 33
	666,072	651,775	641,628	633,326	627,330	624,562	623,179	623,179	623,179	623,179
	-131,147	-131,931	-133,103	-134,449	-136,012	-137,877	-139,872	-141,998	-144,121	-146,245
	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000
	-1,863	-1,752	-1,647	-1,548	-1,455	-1,368	-1,286	-1,208	-1,136	-1,068
	-110,569	-108,739	-107,977	-107,594	-107,741	-108,709	-109,947	-111,483	-112,845	-114,101
	0	0	0	0	0	0	0	0	0	0
	377,492	364,353	353,900	344,734	337,122	331,609	327,075	323,512	320,077	316,764
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	376	196	95	50	-6	-85	-118	-152	-152	-152
	376	196	95	50	-6	-85	-118	-152	-152	-152
	377,869	364,550	353,996	344,784	337,116	331,524	326,957	323,359	319,925	316,612
	113,562	103,899	95,678	88,374	81,945	78,422	71,476	67,038	62,899	59,032
	-1,832,430	-1,728,532	-1,632,854	-1,544,479	-1,462,535	-1,386,112	-1,314,637	-1,247,599	-1,184,700	-1,125,667
	0.77	0.78	0.79	0.81	0.82	0.83	0.83	0.84	0.85	0.86

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	2044 Year 34	2045 Year 35	2046 Year 36	2047 Year 37	2048 Year 38	2049 Year 39	2050 Year 40
	623,179	623,179	623,179	623,179	623,179	623,179	623,179
	-148,370	-150,495	-150,495	-150,495	-150,495	-150,495	-150,495
	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000	-45,000
	-1,004	-943	-887	-834	-784	-737	-692
	-115,240	-116,267	-117,903	-119,449	-120,886	-122,244	-123,522
	0	0	0	0	0	0	0
	313,565	310,474	308,895	307,410	306,015	304,703	303,470
	0	0	0	0	0	0	0
	0	0	0	0	0	0	0
	-152	-152	0	0	0	0	0
	-152	-152	0	0	0	0	0
	313,413	310,322	308,895	307,410	306,015	304,703	303,470
	55,417	52,036	46,122	46,361	43,766	41,327	39,054
	-1,070,250	-1,018,214	-966,092	-922,731	-878,965	-837,638	-798,664
	0.87	0.87	0.88	0.88	0.89	0.89	0.90

Red Lake Project Phase 2 Costs

Plastic Mains			
	Contract Labour	$3,200,418	
	Material	$194,131	
	Outside Services	$493,928	
	Contingency	$194,424	
Total Mains			$4,082,901
Steel Mains			
	Contract Labour	$856,541	
	Overall Project Coordination	$1,437,000	
	Material	$238,578	
	Company Expenses and Labour	$49,733	
	Outside Services	$270,591	
	Contingency	$142,622	
Total Steel Mains			$2,995,065
Services			
	Contract Labour	$3,853,940	
	Material	$822,085	
	Company Expenses	$53,045	
	Contingency	$236,454	
Total Services			$4,965,524
Stations			
	Contract Labour	$234,325	
	Material	$234,325	
Total Stations			$468,650
Total Phase 2 Costs			**$12,512,140**

Appendix 3

Customer Attachment Forecast

Project Forecast UG		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL
Conversion Residential		359	225	162	85	60	55	45	30	25	25	1071
New Construction Res		48	41	32	32	32	23	23	23	23	23	300
	Total	407	266	194	117	92	78	68	53	48	48	1371
Commercial R-01		63	43	28	15	12	7	4	4	3	3	182
New Construction R-01 comm		3	3	2	2	2	1	1	1			15
EskerLafarge		1		1								2
OPP/ St John Elem		2										2
Comm HI Press		2	1	1	1							5
	Total	71	47	32	18	14	8	5	5	3	3	206
												1577

Potential Gas Infrastructure Expansions Projects

Community		Population	Max Potential Customers	km from gas system or km of hp feed	Provincial Riding	Prov MPP	Prov Party
Alderville, Roseneath	UG	1,200	350	21	Northhumberland-Quinte West	Rod Milligan	PC
Algoma Mills	UG	300	102	12	Algoma-Manitoulin	Michael Mantha	NDP
Arnstein	UG	100	30	25	Parry Sound - Muskoka	Norm Miller	PC
Arrowland/Nakina	UG	1,000	393	76	Thunder Bay - Superior North	Hon. Michael Gravelle	Lib
Astorville	UG	1,400	531	7	Nipissing	Vic Fedeli	PC
Back Rd- Timmins area	UG	400	160	2	Timmins-James Bay	Gilles Bisson	NDP
Bainsville	Enb	300	100	7	Stormont-Dundas-South Glengarry	Jim McDonell	PC
Bala Muskoka	UG	400	130	33	Parry Sound - Muskoka	Norm Miller	PC
Bancroft	UG	5,000	1,400	71	Prince Edward-Hastings	Todd Smith	PC
Barry's Bay	Enb	1,300	500	90	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Bayside	UG	3,772	1,338	1	Northhumberland-Quinte West	Rod Milligan	PC
Baysville Muskoka	UG	100	118	19	Parry Sound - Muskoka	Norm Miller	PC
Belwood	UG	2,700	1,050	17	Wellington-Halton Hills	Ted Arnott	PC
Bobcaygeon	Enb	4,400	1,700	30	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Brenman Lin, Severn Twp (Gravenhurst)	UG	100	38	2	Parry Sound - Muskoka	Norm Miller	PC
Cambray	Enb	1,000	400	10	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Camden East, Yarker, Tamworth, Erinsville	UG	5,100	1,981	47	Lanark-Frontenac-Lennox and Addington	Randy Hillier	PC
Cameron	Enb	300	100	10	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Canal, Gravenhurst	UG	500	160	2	Parry Sound - Muskoka	Norm Miller	PC
Cedar Springs	UG	1,000	400	1	Halton	Ted Chudleigh	PC
Centenial Cres, North Bay	UG	300	105	2	Nipissing	Vic Fedeli	PC
Chapleau	UG	2,800	1,106	125	Algoma-Manitoulin	Michael Mantha	NDP
Charlton	UG	188	101	9	Timiskaming--Cochrane	John Vanthof	NDP
Chippewa of the Thames First Nation- phase 3 & 4	UG	945	61	3	Lambton-Kent-Middlesex	Monte McNaughton	PC
Chippewas of the Saugeen	UG	700	273	3	Huron-Bruce	Lisa Thompson	PC
Chukuni Subdivision (Red Lake area)	UG	300	100	0	Kenora-Rainy River	Sarah Campbell	NDP
Chute-a-Blondeau	Enb	500	200	10	Glengarry-Prescott-Russell	Grant Crack	Lib
Coboconk	Enb	1,000	400	40	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Consecon- Ameliasburgh, Rossomore	UG	3,600	1,170	33	Prince Edward-Hastings	Todd Smith	PC
Cotnam Island	Enb	300	100	10	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Curran	Enb	300	100	5	Glengarry-Prescott-Russell	Grant Crack	Lib
Dorset	UG	90	104	41	Parry Sound - Muskoka	Norm Miller	PC
Douglas	Enb	500	200	20	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Duchesnay Village North Bay	UG	100	63	3	Nipissing	Vic Fedeli	PC
E Floral (T Bay area)	UG	300	100	0	Thunder Bay - Superior North	Hon. Michael Gravelle	LIB
Eganville	Enb	1,800	700	40	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Emsdale Muskoka	UG	100	28		Parry Sound - Muskoka	Norm Miller	PC
Enniskillen	Enb	500	200	10	Durham	John O'Toole	PC
Fenelon Falls	Enb	4,600	1,800	25	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Field	UG	300	106	10	Timiskaming--Cochrane	John Vanthof	NDP
First Nations/Metis communities (11 areas supplied via CNG/LNG): Pays Platt, PIC Mobert, Grassy Narrows, Wabaseemoong, Lac Seul, Manitoulin Island, Nicickousemenecaning, Naicatchewenin, Stanjikoming, Big Grassy, Rainy River	UG	19,500	7,617		Various		
Forth Line, Sault Ste Marie	UG	200	60	2	Sault Ste. Marie	Hon David Orazietti	LIB
Garden Village (Promenade-de-lac)	UG	400	135	9	Timiskaming-Cochrane	John Vanthof	NDP
Gores Landing	UG	1,100	443	11	Northhumberland-Quinte West	Rod Milligan	PC
Goulais River	UG	1,000	395	15	Algoma-Manitoulin	Michael Mantha	NDP
Hagar	UG	210	67	1	Timiskaming--Cochrane	John Vanthof	NDP
Haliburton	Enb	2,000	800	100	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Haydon	Enb	300	100	10	Durham	John O'Toole	PC
Hidden Valley/Huntsville	UG	200	80	3	Parry Sound - Muskoka	Norm Miller	PC
Hilton Beach	UG	300	124	25	Algoma-Manitoulin	Michael Mantha	NDP
Hornby	UG	100	44	1	Wellington-Halton Hills	Ted Arnott	PC
Hornepayne	UG	400	165	63	Algoma-Manitoulin	Michael Mantha	NDP
Hoyle	UG	97	33	0	Timmins-James Bay	Gilles Bisson	NDP
Jorgues (south of Hearst)	UG	200	70	14	Timmins-James Bay	Gilles Bisson	NDP
Kaministiquia	UG	100	30	11	Thunder Bay - Superior North	Michael Gravelle	LIB
Keast and South Bay Rd, Sudbury	UG	200	50	3	Sudbury	Rick Bartolucci	Lib
Kinburn/Fitzroy Harbour	Enb	1,300	500	15	Carleton-Mississippi Mills	Jack MacLaren	PC
Kincardine. Tiverton, Paisley, Chesley	UG	11,000	8,331	78	Huron-Bruce	Lisa Thompson	PC
Kinmount	Enb	500	200	60	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Kirkfield	Enb	2,000	800	25	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Lagoon City (Orillia)	UG	1,500	970	23	Simcoe-North	Garfield Dunlop	PC
Lakeview Heights	UG	122	38	0	Stormont—Dundas—South Glengarry	Jim McDonnell	PC
Lambton Shores, Kettle Point First Nation	UG	950	620	5	Lambton-Kent-Middlesex	Monte McNaughton	PC
Lanark & Balderson	Enb	1,000	400	12	Lanark-Frontenac-Lennox & Addington	Randy Hillier	PC
Larder Lake	UG	1,251	548	32	Timiskaming--Cochrane	John Vanthof	NDP
Latchford, Tri Town	UG	500	191	6	Timiskaming--Cochrane	John Vanthof	NDP
Lavigne	UG	200	69	13	Timiskaming--Cochrane	John Vanthof	NDP
Leaskdale	Enb	500	200	8	Durham	John O'Toole	PC
Little Current	UG	1,442	612	28	Algoma-Manitoulin	Michael Mantha	NDP
Little Longlac	UG	64	22	1	Thunder Bay - Superior North	Hon. Michael Gravelle	Lib
Long Lake Phase 3, Sudbury	UG	300	100	2	Nickel Belt	France Gelinas	NDP
Long Sault	UG	1,248	427	3	Stormont—Dundas—South Glengarry	Jim McDonnell	PC
Mactier (Parry Sound)	UG	100	32	30	Parry Sound - Muskoka	Norm Miller	PC
Madsen	UG	245	77	8	Kenora-Rainy River	Sarah Campbell	NDP
Manitouwadge	UG	2,100	831	42	Algoma-Manitoulin	Michael Mantha	NDP

Potential Gas Infrastructure Expansions Projects

Community		Population	Max Potential Customers	km from gas system or km of hp feed	Provincial Riding	Prov MPP	Prov Party
Marathon	UG	3,300	756	77	Thunder Bay - Superior North	Hon. Michael Gravelle	LIB
Marmora	UG	1,400	713	17	Northhumberland-Quinte West	Rod Milligan	PC
Massey	UG	900	367	23	Algoma-Manitoulin	Michael Mantha	NDP
Maxville	Enb	1,000	400	10	Glengarry-Prescott-Russell	Grant Crack	Lib
McKenzie Island	UG	244	74	1	Kenora-Rainy River	Sarah Campbell	NDP
Milverton, Wartburg, Rostock	UG	1,200	1,082	21	Perth - Wellington	Randy Pettapiece	PC
Minden	Enb	1,300	500	75	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Moffat	UG	200	83	1	Halton	Ted Chudleigh	PC
Munsee Delaware First Nation	UG	200	78	3	Lambton-Kent-Middlesex	Monte McNaughton	PC
Neustadt	UG	700	260	12	Bruce-Grey-Owen Sound	Bill Walker	PC
Newboro	UG	275	128	61	Leeds-Grenville	Steve Clark	PC
Nipissing	UG	200	81	25	Nipissing	Vic Fedeli	PC
Nipissing Fist Nation- phase 1	UG	1,400	63	0	Timiskaming--Cochrane	John Vanthof	NDP
Nobel (Parry Sound)	UG	321	185	2	Parry Sound - Muskoka	Norm Miller	PC
Norland	Enb	500	200	50	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
North Temagami	UG	217	103	2	Timiskaming--Cochrane	John Vanthof	NDP
Northshore Rd, Portage, North Bay	UG	900	306	12	Nipissing	Vic Fedeli	PC
Oneida First Nation	UG	750	293	3	Lambton-Kent-Middlesex	Monte McNaughton	PC
Picton- Cherry Valley	UG	1,000	376	8	Prince Edward-Hastings	Todd Smith	PC
Port Loring	UG	200	75	25	Parry Sound - Muskoka	Norm Miller	PC
Prince Township, Sault Ste Marie	UG	300	105		Algoma-Manitoulin	Michael Mantha	NDP
Red Rock First Nation	UG	300	100	3	Thunder Bay - Superior North	Hon. Michael Gravelle	LIB
Redbridge	UG	300	135	20	Nipissing	Vic Fedeli	PC
Restoule	UG	100	38	30	Nipissing	Vic Fedeli	PC
Ripley,Lucknow	UG	1,100	916	31	Huron-Bruce	Lisa Thompson	PC
Roblin, Marbank	UG	1,700	665	24	Prince Edward-Hastings	Todd Smith	PC
Rockton	UG	200	63	14	Ancaster-Dundas-Flamborough-Westdale	Hon. Ted McMeekin	LIB
Rosseau (Parry Sound)	UG	300	91	40	Parry Sound - Muskoka	Norm Miller	PC
Sandford	Enb	500	200	10	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Santa's Village/Beaumont Dr, Bracebridge	UG	400	121	6	Parry Sound - Muskoka	Norm Miller	PC
Sarsfield	Enb	500	200	10	Glengarry-Prescott-Russell	Grant Crack	Lib
Schrieber	UG	1,600	621	14	Thunder Bay - Superior North	Hon. Michael Gravelle	Lib
Scugog Island	Enb	1,500	600	8	Durham	John O'Toole	PC
Serpent River	UG	329	140	14	Algoma-Manitoulin	Michael Mantha	NDP
Sheffield	UG	100	32	6	Ancaster--Dundas--Flamborough--Westdale	Hon. Ted McMeekin	LIB
Sioux Lookout	UG	1,900	751	70	Kenora-Rainy River	Sarah Campbell	NDP
Smithfield	UG	357	140	4	Northhumberland-Quinte West	Rod Milligan	PC
South Glengary	Enb	500	200	10	Stormont-Dundas-South Glengarry	Jim McDonell	PC
Spanish	UG	600	230	44	Algoma-Manitoulin	Michael Mantha	NDP
Spragge	UG	316	136	9	Algoma-Manitoulin	Michael Mantha	NDP
St Charles, Sudbury	UG	200	50	13	Timiskaming--Cochrane	John Vanthof	NDP
St Isidore	Enb	1,000	400	10	Glengarry-Prescott-Russell	Grant Crack	Lib
Swiss Meadow	UG	500	184	4	Simcoe-Grey	Jim Wilson	PC
Sydenham, Harrowsmith, Verona	UG	11,600	2,500	18	Lanark-Frontenac-Lennox and Addington	Randy Hillier	PC
Terrace Bay	UG	2,000	581	108	Thunder Bay - Superior North	Hon. Michael Gravelle	Lib
Thunder Lake & Meadows (Dryden area)	UG	400	150	2	Kenora-Rainy River	Sarah Campbell	NDP
Turkey Point	UG	1,900	750	5	Haldimand-Norfolk	Toby Barrett	PC
Tweed-Thomasburg	UG	900	355	12	Prince Edward-Hastings	Todd Smith	PC
Udora	Enb	1,000	400	8	Durham	John O'Toole	PC
Village of Warwick	UG	100	100	18	Lambton-Kent-Middlesex	Monte McNaughton	PC
Virginiatown	UG	1,439	558	12	Timiskaming--Cochrane	John Vanthof	NDP
Wabauskang First Nation	UG	100	35	5	Kenora-Rainy River	Sarah Campbell	NDP
Wabigood First Nation	UG	300	114	30	Kenora-Rainy River	Sarah Campbell	NDP
Wabigoon	UG	400	149	15	Kenora-Rainy River	Sarah Campbell	NDP
Wahnapitae First Nation	UG	100	39	20	Sudbury	Rick Bartolucci	LIB
Walpole Island First Nation- comm area	UG	1,900	70	5	Lambton-Kent-Middlesex	Monte McNaughton	PC
Washago	UG	350	150	7	Simcoe-North	Garfield Dunlop	PC
Wawa	UG	247	1,429	251	Algoma-Manitoulin	Michael Mantha	NDP
Webbwood	UG	452	180	9	Algoma-Manitoulin	Michael Mantha	NDP
Westmeath	Enb	500	200	10	Renfrew-Nipissing-Pembroke	John Yakabuski	PC
Westport	UG	680	337	8	Leeds-Grenville	Steve Clark	PC
Whitefish Falls	UG	127	46	19	Algoma-Manitoulin	Michael Mantha	NDP
Woodville	Enb	800	300	12	Haliburton-Kawartha Lakes-Brock	Laurie Scott	PC
Wroxieter/Gorrie/Fordwich	UG	1,700	671	23	Huron-Bruce	Lisa Thompson	PC
Zephyr	Enb	800	300	10	Durham	John O'Toole	PC
Total for communities >500 Cust	**36**	**105,784**	**40,381**				
Total for communities >100 Cust	**107**	**151,874**	**63,024**				
Total	**140**	**160,828**	**64,835**				
Occupants per houshold:		**2.56**					

Rural and Northern Ontario Affordable Energy Infrastructure Program
Program Outline Options

Total Investment	• $700M gross capital over 5 years • Up to 47,000 customers in over 80 communities connected	• $400M gross capital over 5 years • Up to 40,000 customers in over 40 communities connected	• $400M gross capital over 5 years • Up to 40,000 customers in over 40 communities connected
Stakeholder	**Option A**	**Option B**	**Option C**
Expansion Area Customer	• Construction contribution totalling $1,000-$2,000 through volumetric rate rider, plus • Cost of converting equipment averaging $3,500		
Municipality	• Minimum economic contribution (aid) valued at present value of pipeline tax contributions, collected up front or annually until communities meet economic thresholds, and credited against rate base when collected • Option to provide incremental funding to improve project economics		
Gas Utility	• **$300M capital invested over 5 years**	• **$200M capital invested over 5 years**	• **$200M capital invested over 5 years**
Government of Ontario	• **Direct Funding: $400M grant over 5 years**, and • **Directives to OEB** to allow for: o Cross Subsidization of new expansions from existing ratepayers provided resulting annual delivery cost impact is limited to **0.5% increase**, and o Capital pass through to allow recovery in rates, including any expected municipal and customer contributions, prior to end of IR period, and o Modified community and portfolio economic thresholds, and o Expansion area customer construction contributions collected through a volumetric rate rider, applied until communities meet economic thresholds, and credited against rate base annually when collected	• **Direct Funding: $200M grant over 5 years**, and • **Directives to OEB** to allow for: o Cross Subsidization of new expansions from existing ratepayers provided resulting annual delivery cost impact is limited to **1.0% increase**, ($3.50/year for residential customers) and o Capital pass through to allow recovery in rates, including any expected municipal and customer contributions, prior to end of IR period, and o Modified community and portfolio economic thresholds, and o Expansion area customer construction contributions collected through a volumetric rate rider, applied until communities meet economic thresholds, and credited against rate base annually when collected	• **Direct funding: $100M grant over 5 years**, and • **Directives to OEB** to allow for: o Cross Subsidization of new expansions from existing ratepayers provided resulting annual delivery cost impact is limited to a **1.5% increase,** and o Capital pass through to allow recovery in rates, including any expected municipal and customer contributions, prior to end of IR period, and o Modified community and portfolio economic thresholds, and o Expansion area customer construction contributions collected through a volumetric rate rider, applied until communities meet economic thresholds, and credited against rate base annually when collected

Rural and Northern Ontario Affordable Energy Infrastructure Program
Program Outline Options

Potential Community Screening Mechanisms

• Minimum community size(total number of homes and businesses), first come first served, provided project passes specified economic test threshold after applying a provincial contribution with a ceiling per home/business, or
• Minimum community size), and following a formal application period each year:
  ○ Lowest provincial contribution (as % of gross capital) required to meet economic test threshold first, provided project meets specified economic test threshold after applying provincial contribution or
  ○ Rank order, largest to smallest community, after applying a provincial contribution with a ceiling per home/business, and provided project meets specified economic test threshold after applying provincial contribution
  ○ Economic test criteria could be set with slightly lowered requirements for larger communities in order to build a hybrid of these two options
In all cases minimum community size thresholds could be reduced each year. Communities could improve their ability to compete for funding by coming to the table with additional contributions.