

Comparison of Distributor Costs

Technical Consultation
Opening Remarks – Bill Cowan
September 12-13, 2007

Purpose of Comparative Analysis

- Portfolio of electricity distributors with
 - varying characteristics
 - significant quantities of performance data
 - Financial
 - Volumetric
 - Service Quality
- Purpose is to adopt analytical tools that can help illuminate, improve understanding, draw intelligence regarding the portfolio so as to provide better regulation

Background – This Round

- Start two stage Board staff consultation, Nov '06
 - Invited comments on various matters
 - Provided data 2002-2005
- Report of Pacific Economics Group, April 2007
- Comments on PEG Report, July 4, 2007
- 2006 Statistical Yearbook, August 31, 2007
- Technical Consultation
 - Guide for Presentations
 - Invited declarations of interest in presenting
- Data incremented for 2006 and capital spending

Parties Represented

- List of participants June 8, 2007
 - 5 intervenor groups, some with experts
 - 2 utility consulting groups
 - 14 distributors
 - 1 industry association
 - 1 employee union
 - 1 marketer
- Presentation at consultation
 - Board staff
 - 2 intervenors
 - 8 distributors
 - 1 industry association
 - 1 employee union

Consultation Agenda

- Presentations Wednesday morning
 - PEG, EDA, PWU
 - Clarification questions only
- Lunch
- Substantive discussion issues/questions panel
- Further presentations
 - SEC, Energy Probe
 - Chatham Kent, CLD, Hydro One
- Substantive discussion
- Wrap-up Board Staff
- End Thursday noon
- Thursday afternoon Incentive Regulation

Protocol

- Administration
 - Sign-in
 - Food/refreshments
 - Transcription
- Time Management
 - Closure
 - Flexibility

Topics of Interest to Board Staff

Data Improvement

- Which improvements necessary (benefit > cost)
- Any other issues
- Phasing of the work short, medium, long term
- Methodologies
 - Use one method or combination
 - Which methods most appropriate and why
- Uses in Ratemaking
 - Screening, informing interrogatories, developing filing guidelines for rebasing
 - Establishing costs for setting revenue requirement
 - Other alternatives for setting X-Factor
 - Staged approach to use in incentive ratemaking

Distributor Data Considerations

- Financial statements third party audited
 - Quality: High
- Uniform System of Accounts mapping
 - Quality: High in aggregate
- Grouping of OM&A into sub-categories
 - Quality: Spotty (approx 50% of LDCs)
- Volumetric and Attributes
 - Quality: High
- Capital additions
 - Quality: High (5 years of data)
 - Relevance: Concerns with the measure
- Service Quality SAIDI, SAIFI, CAIDI
 - Quality: Spotty (approx 75 LDCs OK)
 - Relevance: Concern with the measure

Suggested Priority Data Upgrades 1

- More consistent allocation of labour to functions
- Make labour component of OM&A public
- Gather more detailed plant addition data
- More accurate volume by class and peak demand
- Deliveries to embedded distributors (include retrospectively)
- More accurate network and service territory characteristics
- More info on business conditions, e.g. customers in 1990

¹ PEG Report April 25, 2007, pgs 41-42



Next Steps

- Board staff complete analysis of 2006 mindful of participant comments
- Staff recommendation to Board on uses of comparative analysis by October 31, 2007
 - Rebasing
 - Incentive regulation
 - Next steps
- Board action as appropriate

What is the Value Proposition? Comparison of Unit Cost Analysis with Pacific Economics Group Analysis

Presentation September 12, 2007 Bill Cowan Ontario Energy Board

Comparison of Ontario Electricity Distributors Costs (EB-2006-0268) Sort After PEG's Report

Built from Data submitted by LDCs via the Reporting and Record-keeping Requirements (RRR) Data downloaded from Database: October, Monday 23rd, 2006



Small Northern LDCs weighted average					Total Number of Customers Total OM&A				
	LDC	Big Diference	PEG Rank	OFR Rank	4 Year Averac	2005	2004	2003	2002
Classes Rever Power Corporation	Hydro One Networks Inc.	Bildione	T EO Ruin	OLD ITALIA					\$303
	Small Northern LDCs weighted average				\$248	\$243	\$242	\$262	\$246
Record Hybric Electric Corporation Lut.	Ottawa River Power Corporation								\$177
Egranol Régional Hydro Distribution Corporation 6	Hearst Power Distribution Company Limited		+			· ·			\$181
Listelland Power Destribution List	,,								\$205
Food Frances Power Comparation 8	2, 2 2 3 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2		_						
Notifier Dictation Writers Inc.			+						
Terrance Birdy Superior Wiese Inc.			_						
Size South			+	<u> </u>					\$328
Chaptes Public Utilities Corporation 10 10 \$667 \$389 \$359 \$370 \$34		Х							\$296
Section Sect			_	10					\$349
West Ngishing Energy Services Ltd	Atikokan Hydro Inc.		11	11	\$428	\$373	\$375	\$617	\$346
PUID Destribution Inc.	Large Northern LDCs weighted average	\$216	\$210	\$226	\$216	\$212			
PUID Destribution Inc.	West Nipissing Energy Services Ltd.	X	5	1				· · · · · · · · · · · · · · · · · · ·	\$239
North Bay Hydro Distribution Limited X 1 4 \$223 \$203 \$218 \$223 \$224 \$224 \$225 \$224 \$223 \$224 \$225 \$224 \$225	PUC Distribution Inc.		2	2	\$204			\$195	\$180
Southwestern Small Town LDCs weighted average	Greater Sudbury Hydro Inc.		3	3	\$207	\$210	\$223	\$195	\$198
Southwestern Small Town LDCs weighted average S224 S230 S223 S222 S22 S22 S32 S324 S230 S223 S222 S224 S330 S223 S222 S224 S330 S223 S222 S224 S330 S223 S222 S224 S230 S233 S234 S234 S235 S234 S235	North Bay Hydro Distribution Limited	X	1	4					\$249
Southwestern Small Town LDCs weighted average	Thunder Bay Hydro Electricity Distribution Inc.		_						\$225
Gimsty Power Incorporated	Great Lakes Power Limited		6	6	\$606	\$674	\$623	\$614	\$510
Compgetile Hydro Limited	Southwestern Small Town LDCs weighted average	_						· · · · · · · · · · · · · · · · · · ·	\$221
COLLUS Power Corp.			+						\$140
Tay Hydro Electric Distribution Company Inc. 5	,		_						
Niegara-on-the-Lake Hydro Inc.	-		_					7 -	
Tillsonburg Hydro Inc.	, ,								
Halton Hills Hydro Inc. 3 7 \$213 \$198 \$215 \$209 \$23	,	Х	+						\$206
Clinton Power Corporation	Halton Hills Hydro Inc.								\$231
Newbury Power Inc. 10	Clinton Power Corporation	Х	14	8		\$224	\$208	\$243	\$233
West Perth Power Inc.	Norfolk Power Distribution Inc.		8	9	\$228		\$217	\$233	\$241
Section Sect	Newbury Power Inc.		_	10					N/A
Wellington North Power Inc. 12 13 \$265 \$281 \$262 \$246 \$27 \$281 \$260 \$267 \$271 \$28 \$281 \$260 \$267 \$271 \$28 \$281 \$260 \$267 \$271 \$28 \$281 \$260 \$267 \$271 \$28 \$281 \$266 \$332 \$232 \$21 \$281 \$273 \$266 \$332 \$232 \$21 \$281 \$2	West Perth Power Inc.		+						\$268
Midland Power Utility Corporation	, ,,	X							\$249
Dutton Hydro Limited			+						
Peninsula West Utilities Limited			_						
Southwestern Midsize town LDCs weighted average S220 S242 S218 S212 S20	, , ,	Y	+						
Southwestern Midsize town LDCs weighted average \$220 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$200 \$242 \$218 \$212 \$218 \$212 \$218 \$212 \$218 \$212 \$218 \$212 \$218 \$212 \$218 \$212 \$218 \$212 \$212		^							
Wasaga Distribution Inc. 3 1 \$134 \$152 \$137 \$127 \$12 Chatham-Kent Hydro Inc. 1 2 \$163 \$183 \$160 \$151 \$15 E.L.K. Energy Inc. 6 3 \$173 N/A \$159 \$185 \$17 Festival Hydro Inc. 2 4 \$179 \$176 \$178 \$175 \$18 St. Thomas Energy Inc. 7 5 \$184 \$205 \$188 \$174 \$16 Woodstock Hydro Services Inc. 9 6 \$210 \$222 \$211 \$19 Essex Powerlines Corporation X 13 7 \$210 \$224 \$211 \$19 Essex Powerlines Corporation X 13 7 \$210 \$243 \$206 \$186 \$20 Innisfil Hydro Distribution Systems Limited 5 8 \$212 \$200 \$234 \$225 \$18 Middlesex Power Distribution Corporation 12 9 \$218 \$244 <	Brant County Power Inc.								\$312
Wasaga Distribution Inc. 3 1 \$134 \$152 \$137 \$127 \$12 Chatham-Kent Hydro Inc. 1 2 \$163 \$183 \$160 \$151 \$15 E.L.K. Energy Inc. 6 3 \$173 N/A \$159 \$185 \$17 Festival Hydro Inc. 2 4 \$179 \$176 \$178 \$175 \$18 St. Thomas Energy Inc. 7 5 \$184 \$205 \$188 \$174 \$16 Woodstock Hydro Services Inc. 9 6 \$210 \$222 \$211 \$19 Essex Powerlines Corporation X 13 7 \$210 \$224 \$211 \$19 Essex Powerlines Corporation X 13 7 \$210 \$243 \$206 \$186 \$20 Innisfil Hydro Distribution Systems Limited 5 8 \$212 \$200 \$234 \$225 \$18 Middlesex Power Distribution Corporation 12 9 \$218 \$244 <	Southwestern Midsize town LDCs weighted average				\$220	\$242	\$218	\$212	\$207
Chatham-Kent Hydro Inc. 1 2 \$163 \$183 \$160 \$151 \$15 E.L.K. Energy Inc. 6 3 \$173 N/A \$159 \$185 \$17 Festival Hydro Inc. 2 4 \$179 \$176 \$178 \$175 \$18 St. Thomas Energy Inc. 7 5 \$184 \$205 \$188 \$174 \$16 Woodstock Hydro Services Inc. 9 6 \$210 \$222 \$212 \$211 \$19 Essex Powerlines Corporation X 13 7 \$210 \$243 \$206 \$186 \$20 Innisfil Hydro Distribution Systems Limited 5 8 \$212 \$200 \$234 \$225 \$18 Middlesex Power Distribution Corporation 12 9 \$218 \$244 \$188 \$232 \$20 Westario Power Inc. X 15 10 \$218 \$209 \$234 \$233 \$19 Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distri			3	1					\$120
E.L.K. Energy Inc. 6 3 \$173 N/A \$159 \$185 \$17 Festival Hydro Inc. 7 4 \$179 \$176 \$178 \$175 \$18 St. Thomas Energy Inc. 8 5t. Thomas Energy Inc. 8 6 \$3 \$179 \$176 \$178 \$175 \$18 St. St. St. Thomas Energy Inc. 8 6 \$179 \$176 \$178 \$175 \$18 St.	Chatham-Kent Hydro Inc.		+						\$156
St. Thomas Energy Inc. 7 5 \$184 \$205 \$188 \$174 \$16 Woodstock Hydro Services Inc. 9 6 \$210 \$222 \$212 \$211 \$19 Essex Powerlines Corporation X 13 7 \$210 \$243 \$206 \$186 \$20 Innisfil Hydro Distribution Systems Limited 5 8 \$212 \$200 \$234 \$225 \$18 Middlesex Power Distribution Corporation 12 9 \$218 \$244 \$188 \$232 \$20 Westario Power Inc. X 15 10 \$218 \$209 \$234 \$233 \$19 Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28	E.L.K. Energy Inc.								\$175
Woodstock Hydro Services Inc. 9 6 \$210 \$222 \$212 \$211 \$19 Essex Powerlines Corporation X 13 7 \$210 \$243 \$206 \$186 \$20 Innisfil Hydro Distribution Systems Limited 5 8 \$212 \$200 \$234 \$225 \$18 Middlesex Power Distribution Corporation 12 9 \$218 \$244 \$188 \$232 \$20 Westario Power Inc. X 15 10 \$218 \$209 \$234 \$233 \$19 Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) </td <td>Festival Hydro Inc.</td> <td></td> <td>2</td> <td>4</td> <td>\$179</td> <td>\$176</td> <td>\$178</td> <td>\$175</td> <td>\$186</td>	Festival Hydro Inc.		2	4	\$179	\$176	\$178	\$175	\$186
Essex Powerlines Corporation X 13 7 \$210 \$243 \$206 \$186 \$20 Innisfil Hydro Distribution Systems Limited 5 8 \$212 \$200 \$234 \$225 \$18 Middlesex Power Distribution Corporation 12 9 \$218 \$244 \$188 \$232 \$20 Westario Power Inc. X 15 10 \$218 \$209 \$234 \$233 \$19 Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28	St. Thomas Energy Inc.		_						\$169
Innisfil Hydro Distribution Systems Limited 5 8 \$212 \$200 \$234 \$225 \$18 Middlesex Power Distribution Corporation 12 9 \$218 \$244 \$188 \$232 \$20 Westario Power Inc. X 15 10 \$218 \$209 \$234 \$233 \$19 Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28	Woodstock Hydro Services Inc.								\$194
Middlesex Power Distribution Corporation 12 9 \$218 \$244 \$188 \$232 \$20 Westario Power Inc. X 15 10 \$218 \$209 \$234 \$233 \$19 Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28	Essex Powerlines Corporation	X	+						\$206
Westario Power Inc. X 15 10 \$218 \$209 \$234 \$233 \$19 Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28	,								\$189
Port Colborne (CNP) X 4 11 \$236 \$443 \$186 \$173 \$14 Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28			+						\$208
Orillia Power Distribution Corporation 10 12 \$239 \$273 \$241 \$232 \$21 Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28									
Bluewater Power Distribution Corporation 8 13 \$254 \$261 \$253 \$260 \$24 Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28	` ,	X	+						
Haldimand County Hydro Inc. 14 14 \$255 \$263 \$258 \$238 \$26 Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28			_						
Fort Erie (CNP) 11 15 \$264 \$269 \$252 \$254 \$28			+						\$243 \$261
			+						\$283
	Erie Thames Powerlines Corporation		16	16	\$286	\$324	\$302	\$278	\$238

Comparison of Ontario Electricity Distributors Costs (EB-2006-0268) **Sort After PEG's Report**

Built from Data submitted by LDCs via the Reporting and Record-keeping Requirements (RRR) Data downloaded from Database: October, Monday 23rd, 2006



LDC			Ī	Total Number of Customers Total OM&A					
	Big Diference	PEG Rank OEB Rank		4 Year Averag	2005	2004	2003	2002	
Eastern weighted average				\$191	\$203	\$191	\$190	\$180	
Hydro Hawkesbury Inc.		1	1	\$133	\$145	\$123	\$135	\$128	
Lakefront Utilities Inc.		3	2	\$163	\$193	\$161	\$141	\$159	
Hydro 2000 Inc.		2	3	\$165	\$264	\$139	\$138	\$120	
Peterborough Distribution Incorporated		4	4	\$169	\$182	\$168	\$157	\$169	
Cooperative Hydro Embrun Inc.		5	5	\$184	\$199	\$170	\$189	\$178	
Renfrew Hydro Inc.		6	6	\$191	\$174	\$170	\$205	\$176 \$194	
Kingston Electricity Distribution Limited		7	7	\$212	\$205	\$219	\$203	\$203	
Rideau St. Lawrence Distribution Inc.		8	8	\$216	\$233	\$212	\$214	\$203	
Parry Sound Power Corporation		9	9	\$274	\$304	\$283	\$287	\$204	
Eastern Ontario Power (CNP)		10	10	\$325	\$356	\$284	\$336	Ψ223 N/A	
Eastern Ontario Power (CNP)		10	10	φοζο	φουσ	φ204	φοσο	IN/A	
Large City Southern LDCs weighted average				\$200	\$200	\$197	\$202	\$201	
Hydro One Brampton Networks Inc.		1	1	\$136	\$128	\$127	\$140	\$149	
Horizon Utilities Corporation		4	2	\$155	\$172	\$143	\$159	\$147	
London Hydro Inc.		5	3	\$158	\$162	\$155	\$157	\$160	
Hydro Ottawa Limited		2	4	\$161	\$135	\$145	\$173	\$192	
Powerstream Inc.		3	5	\$179	\$195	\$183	\$178	\$158	
Veridian Connections Inc.		8	6	\$204	\$176	\$196	\$239	\$204	
Enersource Hydro Mississauga Inc.		6	7	\$219	\$238	\$216	\$208	\$212	
Toronto Hydro-Electric System Limited		7	8	\$240	\$246	\$245	\$238	\$232	
ENWIN Powerlines Ltd.		9	9	\$287	\$259	\$280	\$284	\$326	
								·	
GTA towns LDCs weighted average				\$185	\$178	\$189	\$195	\$179	
Barrie Hydro Distribution Inc.		2	1	\$134	\$119	\$136	\$153	\$127	
Kitchener-Wilmot Hydro Inc.		1	2	\$138	\$141	\$136	\$139	\$137	
Cambridge and North Dumfries Hydro Inc.		3	3	\$162	\$170	\$169	\$153	\$157	
Welland Hydro-Electric System Corp.	X	10	4	\$186	\$178	\$205	\$189	\$173	
Guelph Hydro Electric Systems Inc.		6	5	\$187	\$154	\$198	\$207	\$190	
Waterloo North Hydro Inc.		7	6	\$188	\$179	\$187	\$188	\$199	
Brantford Power Inc.	X	11	7	\$190	\$206	\$202	\$188	\$164	
Oshawa PUC Networks Inc.		data	8	\$200	\$163	\$212	\$221	\$204	
Whitby Hydro Electric Corporation		9	9	\$205	\$206	\$191	\$215	\$209	
Oakville Hydro Electricity Distribution Inc.	X	5	10	\$209	\$199	\$217	\$216	\$203	
Burlington Hydro Inc.	X	4	11	\$218	\$225	\$234	\$228	\$185	
Newmarket Hydro Ltd.		12	12	\$220	\$187	\$203	\$294	\$194	
Niagara Falls Hydro Inc.		13	13	\$221	\$240	\$215	\$215	\$214	
Milton Hydro Distribution Inc.	X	8	14	\$225	\$217	\$212	\$223	\$248	
Centre Wellington Hydro Ltd.		14	15	\$251	\$240	\$238	\$252	\$274	

Note:

- 1. Guelph Hydro Electric Systems Inc. includes data from Wellington Electric Distribution Company Inc.
- 2. Horizon Utilities Corporation includes Hamilton Hydro Inc. and St. Catherines Hydro Utility Services Inc.
- 3. PowerStream Inc. includes Aurora Hydro Connections Limited
- 4. Peterborough Distribution Incorporated includes Asphodel Norwood and Lakefield
- 5. Veridian Connections Inc. includes Gravenhurst and Scugog
- 6. Hydro One Remote Communities and First Nation LDCs removed due to the corporate structure, remote locations, economic and other unique factors
- West Nipissing Energy Services Ltd. has been acquired by North Bay
 Middlesex Power Distribution Corporation has been acquired by Chatham-Kent Hydro