EB-2016-0025

Ontario Energy Board

Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, and PowerStream Inc.

Application for approval to amalgamate to form LDC Co. and for LDC Co. to purchase and amalgamate with Hydro One Brampton Networks Inc.

BUILDING OWNERS AND MANAGERS ASSOCIATION, GREATER TORONTO ("BOMA") CROSS-EXAMINATION COMPENDIUM

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MergeCo will continue to recognize each local as the sole bargaining agent for its respective members and work within each collective agreement's rights and responsibilities as they relate to union and management direction.

Voluntary Separations

Workforce reductions will be managed in a manner to minimize disruption, be fair as well as transparent, and move towards the end state as quickly as possible. It is anticipated that organic growth and natural attrition will significantly assist in this process.

1.4 Summary of Proposed Transaction

This section is a quick overview of the Transaction including the following areas which provide the financial framework of MergeCo.

Corporate Structure

The corporate structure has been designed with the following objectives:

- Direct shareholding in MergeCo to the maximum extent possible.
- Financial flexibility to support ongoing sustainment-based investment in electricity distribution and business growth.
- Tax efficiency.

The proposed final structure is provided below:



HoldCo is effectively a holding company for all of the businesses of MergeCo and will warehouse corporate functions including the CEO, legal, finance, corporate relations, and internal audit.

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corporation and all of its downstream MEU investment interests at the time that an MEU corporation loses its tax exempt status under the Tax Acts.

There are significant tax constraints on shareholder monetization under the current corporate structures utilized by most MEUs. However, under the proposed partnership structure there is far more shareholder monetization flexibility and opportunity.

Merger Synergy Savings

As a result of the merger, MergeCo expects to generate the following material savings (values are pre-tax):

- Aggregate gross operations, maintenance and administration expenditure (OM&A) savings of \$355MM over the first 10 years, or 14% of total OM&A expenditures, thereafter continuing at a savings rate of approximately 15% annually, (i.e., not cumulative).
- Aggregate gross capital expenditure (CapEx) savings of \$168MM over the first 10 years, thereafter continuing at a sustained level of \$8MM annually.

MergeCo will incur approximately \$93MM of the \$96MM in transition costs in the first three years with respect to systems and process integration and human resource costs.

In total, MergeCo will deliver approximately \$426MM of net cash savings (pre-tax) in the first 10 years following the merger thereafter sustained at approximately \$51MM per year.

The very meaningful shareholder and customer benefits described herein are made available by the operating synergies and savings previously described and summarized as follows (\$MMs):

(\$MMs)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Gross Synergies		Ť									-
Operating	7.2	20.1	31.7	40.6	42.5	42.5	42.5	42.5	42.5	42.5	354.6
Capital	23.0	22.6	28.8	23.2	30.0	8.0	8.0	8.0	8.0	8.0	167.6
Total Synergies	30.2	42.7	60.5	63.8	72.5	50.5	50.5	50.5	50.5	50.5	522.2
Transition Costs		()						1			2
Charged to Operating	20.9	11.1	8.2	2.3	0.5			÷.		. 20	43.0
Charged to Capital	33.7	15.2	4.4	-	•			-	-	(<u>2</u>)	53.3
Total Transition Costs	54.6	26.3	12.6	2.3	0.5		-				96.3
Net Synergies	7.00	27.27			-					5077	
Operating	(13.7)	9.0	23.5	38.3	42.0	42.5	42.5	42.5	42.5	42.5	311.6
Capital	(10.7)	7.4	24.4	23.2	30.0	8.0	8.0	8.0	8.0	8.0	114.3
Total Net Synergies	(24.4)	16.4	47.9	61.5	72.0	50.5	50.5	50.5	50.5	50.5	425.9

Figure 1.7 - Total Net Synergies

The 2025 annual operating and capital savings are expected to be sustainable thereafter.

Based on OEB policy for distributor consolidation, the cost savings and synergies resulting from a merger may be retained by shareholders and customers of LDCs as follows:

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MergeCo Structure

Each corporate entity's office is to be located in a separate community, taking advantage of existing head office facilities and will be led by a CEO (for HoldCo) or President (in each of the Operating Companies). At each head office, a strong local executive presence will exist.



Figure 1.2 - MergeCo Entity Level Organizational Structure

1.3.2 Service Levels

In merging Enersource, Horizon and PowerStream and in acquiring HOBNI there will be role redundancies, given the four utilities have similar business purposes and functions. While all four LDCs are leaders in efficiency, opportunities for further cost efficiencies will exist.

MergeCo will initially have three distinct operating regions that contain several non-contiguous service districts. These will be reflected in the organizational design at the operating level.

Operating Regions:

Western Region:	Horizon service territories
Central Region:	HOBNI and Enersource service territories
Eastern Region:	PowerStream service territories

In developing MergeCo's operational organizational structure, primary considerations were efficiency, effectiveness and service levels. Not all job functions within the utility are directly tied to the regions they serve. In fact, several services can be performed centrally; that is, outside of the region without undesired impacts. Centralizing appropriate functions may create scale and lower costs which is a fundamental objective of MergeCo.

- ii) Utility or LDC entity that will largely manage the regulated utility business.
- iii) Sustainability and Innovation entity that will be focused on the future growth for MergeCo in addition to the delivery of corporate services.



Figure 5, 2 - MergeCo Entity Level Organizational Structure

The MergeCo organization top line structure is shown above and is organized into three distinct areas for maximum efficiency and supports the management of centralized and de-centralized functions within MergeCo.

5.2.1 Locations of Functions

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Each corporate entity's head offices are to be located in a separate community taking advantage of existing head office facilities. At each office, a strong local executive presence will exist.

The determination of location for the office and each of operating entities was based on practical considerations for both current and future requirements.

The following principles will underlie the final determination of which employees will work from each of the head office locations:

- All communities share the benefits and reductions.
- Focus on fair and equitable treatment of merging communities.
- Executive for head offices will have substantial presence in that location.
- Exercising management flexibility to fulfill synergy targets.
- Centralized and de-centralized functions in each community.

Service Centres

MergeCo will utilize existing service centres for de-centralized functions such as construction and maintenance, trouble response, logistics, fleet services and metering. There are six service centres located within the three regions:

- Western Region

 Hamilton and St. Catharines
- Central Region

 Mississauga and Brampton
- Eastern Region

 Markham and Barrie

Future consolidation of the Mississauga and Brampton service centres will reduce the total number of service centres to five.

Administrative Offices

MergeCo will initially utilize four administrative offices, one in each region (with the exception of the Central Region) for customer touch point services such as customer service and engineering as well as some centralized functions. Over time this may be reduced to three with the potential consolidation of the Mississauga and Brampton centres.

5.2.2 Centralized Versus Decentralized Functions

In merging Enersource, Horizon and PowerStream and in acquiring Hydro One Brampton there will be role redundancies, given the four utilities have similar business purposes and functions. While all four LDCs are leaders in efficiency opportunities for further cost efficiencies will exist.

MergeCo will initially have three distinct operating regions that contain several non-contiguous service districts. These will be reflected in the organizational design at the operational structure at the operating level.

Operating Regions

Western Region:	Horizon service territories
Central Region:	Hydro One Brampton and Enersource service territories
Eastern Region:	PowerStream service territories

In developing MergeCo's operational organizational structure, primary considerations were efficiency, effectiveness and service levels. Not all job functions within the utility are directly tied to the regions they serve. In fact, several services can be performed centrally, that is, outside of the region without any degradation of efficiency, effectiveness, and service levels. Centralizing appropriate functions may create scale and lower costs which is a fundamental objective of MergeCo. A necessary step is to identify what functions can be centralized and what functions are best left de-centralized.

De-centralized (Asset Related Services)

For MergeCo, regionalized functions tend to be categorized as being labour intensive and focused on the delivery of service at the asset level in the field. Opportunities exist for reduction and rationalization of Asset Related Services with the adoption of best practices in job planning, resource planning/allocation methodologies and task productivity improvements. The overall optimization function recognizes the inherent regionalized aspect of these tasks as they are intrinsically linked to geographic assets and trade-off of commuting costs that would be associated to centralization.

Centralized (Transactional/Informational Services)

In contrast to Asset Related Services, Transactional/Informational Services are technology focused. The definition of technology includes business processes. These functions utilize technology as leverage for productivity. Focus is typically on standardization and repeatability. The table below is a functional listing of a utility and the classifications of these functions into their appropriate category:

Utility Functions											
Centralized	De-centralized										
Corporate	Facilities (Property)										
Human Resources	Logistics										
Regulatory Affairs	Fleet Services										
Procurement	Metering										
Customer Service (Call	Maintenance										
Centre, Billing, Collections)											
Finance	Construction										
Information Technology	Trouble Response										
Asset Management &	Control Room (Day only)										
Engineering Services											

Figure 5. 3 - Utility Functions

These categorizations are based on broad assumptions that reflect the primary focus and nature of the tasks involved in carrying out the functions. In certain areas a hybrid approach between centralized and de-centralized is desirable, and therefore will be employed.

5.3 Asset Management Plan

The total income producing asset value of MergeCo will be approximately \$2,610MM.

MergeCo's 2016 capital program is estimated to be \$300MM. Given the size of the asset base and the level of annual investment required, it is necessary that MergeCo have dedicated staff resources whose function is to identify, validate and prioritize expenditures on these assets to ensure maximum value is derived at all times.

Asset Management is defined as:

"Systematic and coordinated activities and practices through which an organization optimally manages its assets and their associated performance, risks, and expenditures over their life cycle for the purpose of achieving its organizational strategic plan."

MergeCo will continue to work to common Asset Management objectives and adoption of best practices. Key Asset Management objectives will include:

Financial Objectives

- Manage assets to minimize total lifecycle cost.
- Optimize operational and capital investments by utilizing best practices to replace, refurbish and maintain assets.
- Ensure investment prudency through balancing resources and the interests of customers and shareholders.
- All material expenditures (maintenance or capital) will undergo a benefit/cost evaluation under a decision model that will incorporate system requirements, financial considerations, customer demands and environmental concerns. This process will be aided by the use of advanced prioritization and asset condition assessment software tools.

Customer Focused Objectives

- Deliver save and reliable service to customers at reasonable cost.
- Satisfy customer expectations and deliver value for money.
- Manage reliability risks by monitoring outage causes with a goal that limits durations of outages on the distribution system.
- Perform regular customer surveys to gauge customer satisfaction with operational effectiveness and reliability and power quality.

Operational Objectives

- Develop and utilize best-in-class processes for managing company assets.
- Manage risk to acceptable levels.
- Incorporate and leverage benefits of new technology while assets are renewed.

Each year a five-year system plan will be created and/or updated that will identify areas of the system that require replacement, re-enforcement and expansion. This will include a schedule of planned maintenance programs.

An annual operational plan and associated budget will be produced that will be consistent with the business principles of MergeCo as agreed in the Merger Participation Agreement. Specifically MergeCo will develop an Asset Management plan to:

Establish sustainable infrastructure through adequate investments: the ability to sustain
adequate investment analysis levels in maintaining and replacing aging infrastructure is the
fundamental benefit of a financially viable MergeCo.

 Maintain service reliability at least at current levels or better based on standard industry measurements: MergeCo will maintain and improve service reliability to customers.

5.4 Customer Service Plan

The objectives and business principles of MergeCo provide for enhanced customer service delivery as a result of the merger transaction. As such, customer service operational plans will be closely linked to the achievement of customer service satisfaction levels. In setting performance targets for customer service levels, MergeCo will consider:

- Present service levels of Enersource, Horizon, Hydro One Brampton and PowerStream.
- Service levels required by OEB regulation.
- Competitive benchmarks.
- Results of customer surveys.

There are merits of centralizing many of the process related back-office customer service functions such as the customer information system, billing and collections, etc. Centralizing such functions will not adversely impact customer service levels but will contribute to cost savings.

As part of its ongoing operation, MergeCo will regularly review the level of customer service support to ensure appropriate levels are maintained. It is expected that a larger call centre will result in faster response times.

5.4.1 Local Presence

A fundamental benefit in creating scale through mergers is the centralization of back-office related jobs. Consolidation of key elements of the Customer Service function is essential in reducing the overhead costs and payroll costs associated with this area.

Current differences exist between the four utilities on walk-in customer service. Horizon does not accept walk-in payments from customers but rather, encourages customers to consider an electronic payment method and offers payment drop-off boxes. Enersource and Hydro One Brampton accept walk-in customer payments as does PowerStream. PowerStream has maintained local presence in the communities it serves by enabling walk-in payments and customer service at five outpost locations in its communities.

MergeCo recognizes the need for the existing local customer touch points in Hydro One Brampton, Enersource and PowerStream to be maintained and as such, the existing customer service presence will remain.

5.4.2. Conservation and Demand Management

Under the 2015-2020 Conservation First Framework (CFF) all LDCs in Ontario have a requirement in their distribution licence to make Conservation and Demand Management (CDM) programs available to all customers. To receive CDM program funding from the IESO, LDCs entered into a six-year standard Energy Conservation Agreement (ECA) with the IESO and

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submitted utility-specific CDM Plans outlining conservation activities for the next six-year period. The technical review and approval process for these plans is underway by the IESO.

The ECA specifically indicates, if an LDC amalgamates with another distribution company it must notify the IESO within five days of the effective date and must submit a revised CDM Plan for the merged company within 120 days of the effective date. MergeCo will be required to submit a combined CDM Plan for all merging companies to the IESO for approval.

MergeCo Combined CDM Opportunity

The following table provides a summary of the CDM targets, budgets, potential performance incentives and CDM Plan status for Enersource, Horizon Utilities, PowerStream and Hydro One Brampton along with information on Toronto Hydro for comparison purposes. MergeCo would have the single largest distributor CDM target and budget representing 23% of the provincial total. If MergeCo achieved at least 100% of its six-year target by end of 2020, the company could earn \$24MM in performance incentives.

	PowerStream	Horizon Utilities	Enersource	Hydro One Brampton	Merged (4)	Toronto Hydro (comparison)						
IESO Alloca	ited 2015-2020 CDI	M Targets & B	ludgets									
CDM Target (GWh)	535	330	484	255	1,605	1,576						
Budget (\$M)	\$140.7	\$84.83	\$122.5	\$66.8	\$414.8	\$400_2						
6-year Potential Performance Incentives \$10,000 / GWh achieved (\$15,000 / GWh for Joint Plans) 50% + payable at mid-term if ≥50% progress												
At 100% target (\$M)	\$8.0	\$5.0	\$4.8	\$2.6	\$24.1	\$15.8						
CDM Plans												
Туре	Joint	Joint	Single Joint resubmission with HOBNI	Single Joint resubmission with Enersource	Joint	Single						
Status with IESO	Approved (Feb 24)	Approved (May 29)	Submitted (April 2) Resubmitted in August 2015	Submitted (April 30) Resubmitted in August 2015		Approved (Mar 26)						

Figure 5. 4 - Summary of CDM Requirements and Opportunities

5.4.3 LEAP (Low-Income Energy Support Program)

There is a distinct benefit for low-income customers from MergeCo that is similar to the benefit of a having a larger and more diverse asset pool. Large utilities like Union Gas and Enbridge can use their revenue from a broad pool of customers to distribute LEAP money where it is most needed more so than any one of the four LDCs on their own.

Currently, two of the four LDCs spend their full allotment of LEAP with demands that exceed available funds and two are under-spending (\$114 thousand in 2013). MergeCo could distribute these unused funds to low-income customers in the other two utilities' service areas.

LDC	2013 - Distribution Revenue (Mil)	1	LE Availa dis re	AP Funds ble (0.12% of stribution evenue)	Ur	used in 2013
Horizon	\$	109	\$	130,800	\$	-
PowerStream	\$ 1	169	\$	202,800	\$	14,990
Enersource	\$	121	\$	145,200	\$	5
HydroOne Brampton	\$	67	\$	80,400	\$	99,621
Total A State State State	\$	466	\$	559,200	\$	114,611

Figure 5.5 - Comparison of 4 LDCs for LEAP Funds

5.5 Business Applications Plan

MergeCo will set the following objectives for business applications:

- Establish a stable, consolidated, secure information technology infrastructure environment to sustain the operations of the new company and minimize operational risk during the transition period following the merger.
- Consolidate the Enterprise Resource Planning system of all legacy companies as quickly as
 possible into a common JD Edwards system environment to facilitate the integration
 business operations.
- Consolidate the Customer Information Systems (CIS) environment of all legacy companies as quickly as possible into one common Oracle Customer Care & Billing (CC&B) system to facilitate integration of Customer Service business functions and improve service to customers.
- Consolidate the Geographic Information System (GIS) and Outage Management Systems (OMS) of the legacy companies into one common Intergraph GIS and OMS environment to facilitate integration of the electrical Network Operations of the business and improve service to customers.
- Consolidate enterprise cyber security practices and technologies into a single common set
 of processes and systems that provides the protection of information and the entire

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information technology architecture to support all business and regulatory requirements of the new company.

5.5.1 Stable Environment during Transition Period

During the transition period following the merger, MergeCo will quickly establish a stable business applications environment to support operations and minimize risk. A review of the business applications presently employed by each of the four LDCs indicates a high level of compatibility.

There are a number of less compatible systems including finance, work order management and payroll systems that will need to be integrated as part of a transitional plan. Each of these systems may be run in parallel until such time as integration plans can be executed.

Overall, it appears that the level of systems compatibility between the utilities will facilitate a transition to a common approach to delivering business applications while supporting continuing business operations and managing risk.

5.5.2 Strategic Plan for Business Applications

The following objectives have been adopted in formulating an information technology (IT) strategy for MergeCo:

- Leverage experience from within the legacy companies and other similar utilities.
- Maximize return on investment.
- Where possible, leverage best practices embodied in package solutions.
- Managing implementation risk and cost.

The first phase in the implementation of the strategic plan for business applications is to consolidate the core enterprise applications (ERP, CIS, GIS/OMS and SCADA) as quickly as possible in order to facilitate the realization of identified synergies. This would involve utilizing the business processes and systems configuration of one of the utilities and migrating all others to the selected configuration. Such actions would expedite realization of synergies.

Once all of the utilities are utilizing a common set of enterprise applications, phase two would be to implement process improvements and system reconfiguration to support best practice business processes and increased staff productivity.

The total one-time costs of the IT transition projects are approximately \$55MM for 22 separate projects. This includes one-time CAPEX of \$51MM and one-time OPEX of \$4MM. One-time CAPEX includes capitalized internal labour of \$11.6MM from 2016 to 2018.

These one-time costs are offset by pre-merger planned 2016-2020 CAPEX spending for the four utilities of \$89MM which would be avoided as a result of the merger and consolidation of systems.

The objective of the IT transition is to integrate all enterprise systems by mid-2018, with exception of the integration of GIS/OMS from PowerStream which will be completed by the end of 2018.

5.6 Opportunities

The total anticipated benefits resulting from the merger of Enersource, Horizon and PowerStream, and the acquisition of Hydro One Brampton total \$312MM in operating costs and \$114MM of avoided capital costs. Over a 10-year period, over \$425MM of total cash savings are anticipated. These operating and capital savings will benefit customers through lower rates, and shareholders through increased and more stable dividends as elaborated elsewhere in this document.

Annual operating savings will ramp up quickly during the initial five years, between 2016 - 2020, with sustained net annual operating savings of approximately \$42.5MM in 2020 and beyond. The savings will result from increasing scale for all utilities and leveraging resources or infrastructure to realize these savings.

	100	2016		2017		2018	f.	2019	1	2020	5	2021		2022		2023		2024	- 3	2025		Total
OPEX Savings	S	7.2	\$	20,1	\$	31.5	\$	40,6	\$	42.5	\$	42.5	\$	42.5	s	42.5	\$	42,5	\$	42.5	\$	354.6
OPEX Transition Costs	\$	(20.9)	s	(11.1)	\$	(8.2)	\$	(2.3)	\$	(0.5)	\$		\$		\$		\$		\$		\$	(43.0
Total OPEX Savings	\$	(13,7)	\$	9.0	\$	23.5	\$	38.3	\$	42.0	\$	42,5	\$	42.5	\$	42.5	\$	42.5	\$	42.5	\$	311.6
CAPEX Savings	s	23.0	\$	22.6	s	28.8	s	23.2	\$	30.0	\$	8.0	s	8.0	\$	8.0	\$	8.0	\$	8,0	\$	167.6
CAPEX Transition Costs	s	(33.7)	s	(15.2)	\$	(4.4)	\$		\$		\$		S	247	\$	3 4	\$	14	\$	÷	\$	(53.3
Total CAPEX Savings	\$	(10.7)	\$	7.4	\$	24.4	\$	23.2	\$	30.0	\$	8.0	\$	8.0	\$	8.0	\$	8.0	\$	8.0	\$	114.3
Total Cash Savings	•	124 41		16.4	5	47.9	5	61.5	\$	72.0	5	50.5	\$	50.5	5	50,5	s	50.5	\$	50.5	_	\$425.9

Figure 5. 6 - Operating Cost Savings

	11	2016	-	2017		2018		2019	C	2020	i.	2021	21	2022	1	2023	-	2024		2025		Total
Payroll Cost Savings	5	6.7	S	17.5	\$	28.0	\$	34,5	\$	36.7	\$	36.7	\$	38.7	\$	36,7	\$	36.7	\$	36.7	\$	306,9
Payroll Transition Cosls	s	(17.5)	S	(10.0)	\$	(7.8)	\$	(2.0)	\$	(0.3)	\$		\$		\$	•	\$		\$		\$	(37.6
Total Payroll Savinos	\$	(10.8)	\$	7.5	s	20.2	s	32.5	\$	38,4	\$	38.7	\$	38.7	\$	38.7	\$	38.7	\$	36.7	\$	269.3
	1		-		-								1		-		_				\$	102
Non-Payroll Cost Savings	s	0.5	\$	2.6	\$	3.9	\$	6.0	\$	5.8	\$	5,8	\$	5.8	\$	5.8	\$	5.8	\$	5.8	\$	47.8
Non-Payroll Transition Costs	\$	(3.4)	\$	(1.1)	\$	(0.6)	\$	(0.2)	\$	(0.2)											\$	(5.5
Total Non-Payroll Savings	\$	(2.9)	\$	1.5	\$	3.3	\$	5.8	\$	5,6	\$	5.8	\$	5.8	\$	5.8	\$	5.8	\$	5.8	\$	42.3
Total ODEV Sauraas	•	(12.7)	•	90	c	23.5	<	28.3	5	42.0	5	42.5	S	311.6								

Figure 5.7 - CapEx and OpEx Savings

Payroll Cost Savings

MergeCo will benefit from \$270MM (net of transition costs) in savings over the first 10 years from payroll reductions. The savings result from redundant positions largely in administration and back-office functions, as well as the reduction of staff dedicated to IT systems that are no longer required.

Non-payroll Cost Savings

In addition to payroll reductions, the merger partners looked at non-payroll cost reductions. In total, \$42MM (net of transition costs) of savings in the first 10 years was identified through this preliminary review. Savings are related to the elimination of costs due to the duplication of business processes across the four entities and adoption of best practices. Highlights of these cost savings are:

- Reduction of third party costs e.g. consulting, legal etc.
- Consolidation of contracts and services
- Volume discounts

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- Software licensing and maintenance
- Consolidation of systems

Transition Costs (operating)

As MergeCo transitions people, processes and technology, there will be transitional operating costs for the first three years. Operating transition costs are related to:

- Voluntary separation packages
- IT system migration and integration costs
- Re-branding and communication tool integration
- Third-party costs

Avoided Capital Expenditures

MergeCo anticipates approximately \$114MM (net of transition costs) in avoided capital expenditures over the first 10 years. These savings are primarily related to MergeCo taking advantage of converged IT systems that, without a merger, would have required each utility to undertake these costs independently. Other areas of savings are:

- Elimination of IT costs due to converged IT Systems (e.g. programming, maintenance and license fees).
- Purchasing power will result in volume discounts for inventory and third party contractors.
- Rationalization of fleet and equipment across the three Regions.
- Elimination of duplicated programming costs due to regulatory compliance or changes in regulation (e.g. CIS programming for billing changes).
- Reduction of labour costs from the elimination of future hires and best practice adoption of work methods.

Transition Costs (Capital)

Capital related transition costs of \$53MM are driven by the integration and consolidation of IT systems. IT systems such as CIS, ERP, GIS/OMS, telephone system, miscellaneous IT systems etc. will be consolidated over the first three years of the merger.

Please refer to Section 6 (Financial Plan) and related Appendices for a complete analysis on the financial benefits of the merger.

5.7 Implementation Plan

Following formal Shareholder approval of the transaction and prior to closing, a process will be implemented to develop the merger integration and transition plan. Specifically, the departmental sub team structure that was utilized to identify synergy savings will be employed to create detailed implementation planning.

Leveraging the subject matter expert teams from the four organizations, detailed department by department implementation plans will be built. These plans will give consideration to and recommendations for all transitional issues as the four organizations work to become one over time.

It will also map the path, with the appropriate project milestone dates, to the permanent operating state, including but not limited to plans for the integration and standardization of operating procedures, common business and operating processes, common technology platforms and nomenclature and naming conventions.

5.8 Transitional Issues

<u>CDM</u>

Under the Energy Conservation Agreement with IESO, MergeCo would need to resubmit a combined CDM Plan within 120 days of the merger. There may be opportunity to seek an extension or exception to this requirement. It is anticipated that the new Resource Plan could be in place by January 1, 2016.

There is a potential timing issue related to transition and consolidation of CDM activities across the four LDCs. Specifically, if the transition is too slow, MergeCo may be prevented from reaping the synergistic benefits of the merger in time to help achieve the mid-term (2017) CDM target and performance incentive.

Many of the LDCs in GTA area have already been meeting to identify opportunities for collaboration. Additionally, the Transaction participants are also beginning to work more closely together to identify ways to help each other in the short term in order to achieve cost efficiencies and increase energy savings results as soon as possible.

From a CDM perspective, potential issues of a material nature are most likely to be related to staff resources including aligning/mapping roles and compensation structure. Given the relative infancy of CDM activities within the utility sector, there is a range of approaches that have been taken for developing specific job functions and for establishing titles and compensation structures.

With over \$400MM in funding and a target of 1.6 TWh, MergeCo would be the largest LDC in Ontario from a CDM delivery perspective. The new Conservation First Framework presents an opportunity to earn a sizeable incentive for performance (\$24MM for achieving target, maximum incentive of \$58MM). However it also presents many new challenges, responsibilities and financial risks to LDCs.

There are many risk factors which could impact MergeCo's ability to achieve its CDM targets and earn performance incentives (\$24MM+) in the 2015-2020 framework. Key risks identified by the subcommittee are identified below.

- Inability to retain existing contract specialized CDM resources:
 - Limited pool of resources; 50% of positions still contract.
- Not transitioning quickly enough to take advantage of synergies in time for mid-term incentive (2017).

The Operational Plan has execution risks attached; the bulk of which are associated with people and systems. As with any consolidation of this scale there are potential risks associated with synergy delivery. Certain key assumptions have been made in this business case that must be identified and validated during the transition period.

5.9.1 Labour and Human Resources

- Take up on retirement and voluntary separation programs will meet target:
 - A significant portion of cost savings is to be delivered by reduction in payroll costs. A risk exists that the programs offered may not attract sufficient numbers. If this risk materializes, involuntary layoffs may be required.
- Key staff or single incumbent positions will not leave the company during the transition before an effective transfer of knowledge has occurred.
- MergeCo assumes that work procedures and Work Protection Code are not materially different between the four utilities to prevent trades from safely working in each service area without prior extensive training being required.

5.9.2 Information Systems

The primary risk to IT synergies and transition project delivery is MergeCo's ability to cope with the magnitude of technological and organizational change in the planned consolidation timeframe while effectively managing the business. Organizational commitment, effective project management, rapid standardization and simplification of business processes and rapid resolution of issues as they are identified will assist in mitigation of this risk.

- All legacy Customer Information Systems will be migrated to a single consolidated Oracle Customer Care and Billing system by yearend 2018.
- Horizon and HOBNI IBM System (AS/400) will be retired by year end 2017.
- All legacy Enterprise Resource Planning systems will be migrated to a single consolidated system by year end 2017.
- All legacy GIS-OMS systems will be migrated to a single consolidated GIS-OMS system by yearend 2018.
- All legacy SCADA systems will be migrated to a single consolidated SCADA system by mid-2017.
- The new company will migrate to one Production Data Centre and one Disaster Recovery Data Centre by yearend 2017.
- Server/SAN consolidation to a single standard platform by yearend 2017.
- The new company will migrate to a common phone system platform by 2017.
- Assumption that financial reporting by department is in place by 2017 to enable costs to be tracked by new structure and areas of accountabilities to permit timely decisions to be made to manage to plan
- Any regulatory reporting requirements will be considered and accommodated as part of the IT system integration plan.

HUMAN RESOURCES

7.0 HUMAN RESOURCES

7.1 Human Resources Plan Summary

As the leadership team considers the integration of Enersource, Horizon, Hydro One Brampton and PowerStream, many key considerations lie within people and organizational design. The following is a summary of each participating organization:

Enersource Corporation

- 421 Employee Complement
- 161 Non-Unionized Employees
- 260 Unionized Employees represented by IBEW Local 636

Horizon Utilities Corporation

- 415 Employee Complement
- 137 Non-Unionized Employees
- 278 Unionized Employees represented by IBEW Local 636

Hydro One Brampton

- 243 Employee Complement
- 77 Non-Unionized Employees
- 46 Unionized Employees represented by IBEW Local 636 (inside workers)
- 120 Unionized Employees represented by Unifor Local 1285 (outside workers)

PowerStream Inc.

- 554 Employee Complement
- 212 Non-Unionized Employees
- 342 Unionized Employees represented by PWU

Adopting best practices and finding efficiencies while maintaining or improving customer service and shareholder value is critical and will require sensitive and appropriate human resource programs to deal with issues such as staffing and redundancies. Therefore, guiding principles and assumptions must support a fair and equitable process that is consistent for all employees while maintaining a positive and healthy workplace culture.

Recognition of Existing Collective Agreements

MergeCo recognizes the representative rights and collective agreements of each respective bargaining unit and its members. As such those rights and agreements will be maintained and respected until such time as a final determination, if any, is made under the *Labour Relations Act* (Ontario).

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7.7 **Health and Safety Plan**

MergeCo's safety program focuses on maintaining high levels of performance on leading and lagging safety objectives and strives for continuous improvement of health, safety and wellness for employees and contractors.

Excellence in health and safety is vital to the well-being of the public, customers, visitors, contractors and our employees and essential to all aspects of our business.

MergeCo will hold paramount 'Safety First' core principles, such as:

- We conduct our business so it meets or exceeds all applicable laws and regulations and minimizes risk to our employees, the public, customers, visitors and contractors.
- We are committed to continuously improving our health and safety performance.
- We continually promote employee safety on and off the job.
- We believe all occupational injuries and illnesses are preventable.

This focus ensures that all managers have clear results-driven safety objectives that are audited regularly. It insists on high standards, on careful measurement and on benchmarking against the best, including these key components:

- Program Compliance Key Leading Indicators
- Program Standard Improvements
- Injury/Incident Experience (Lagging Indicators)

Accountability for safety is the responsibility of each and every employee and is supported at all levels of the organization.

EB-2016-0025 Enersource, Horizon Utilities, PowerStream Responses to Association of Major Power Consumers in Ontario Interrogatories Delivered: July 27, 2016 Page 1 of 1

> Unredacted version filed Sept. 6, 2016 in response to Sept. 2, 2016 OEB Decision on Confidentiality Requests

B-AMPCO-6

Reference(s): Exhibit B, Tab 6, Schedule 1

Preamble:

a) Please complete the following Table to show the existing FTE levels of the four Parties pre-merger.

FTEs	Enersource	Horizon	PowerStream	Hydro One Brampton
Executive				
Management				
Senior				
Management Management				
Non-Union				
Union				
Temporary				
Total				

- b) Please provide the number of vacancies for Enersource, Horizon, PowerStream and Hydro One Brampton at December 31, 2015.
- c) Please provide the total number of FTEs in the categories in part (a) for LDC Co. for the years 2016 to 2025.

Response:

1 a) The Applicants have provided the pre-consolidation FTE breakdown for the Parties in Table

2 1 below.

EB-2016-0025 Enersource, Horizon Utilities, PowerStream Responses to Association of Major Power Consumers in Ontario Interrogatories Delivered: July 27, 2016 Page 2 of 2

FTEs	Enersource	Horizon Utilities	PowerStream	HOBNI
Executive Management	7	9	18	1
Management	42	51	61	17
Non-Union	112	77	133	59
Union	260	278	342	166
Total FTEs	421	415	554	243
Temporary	3	3	25	5

3 Table 1 – FTE Breakdown by Party

4

5 The Parties do not have a definition of "Senior Management". The number of FTEs reported for 6 "Management" include all management employees other than Executives.

7

8 Temporary staff is not included as FTEs and are hired to provide short-term support on an as-9 needed basis. The number of temporary staff at PowerStream reflects additional support 10 required during the implementation of the new Customer Service Information System in 2015.

11

b) The number of vacancies for each of the four Parties at December 31, 2015 is provided in
 Table 2 below.

14

4

15 **Table 2 – Vacancies by Party**

Utility	# of Vacancies
Enersource	19
Horizon Utilities	27
PowerStream	31
HOBNI	17
Total	94

16

17 c) Table 3 below provides a forecast of FTEs for the first five years of the rebasing deferral

18 period, post consolidation. FTEs at the end of year five, post consolidation, for years six to 19 ten are forecast to remain stable.

EB-2016-0025 Enersource, Horizon Utilities, PowerStream Responses to Association of Major Power Consumers in Ontario Interrogatories Delivered: July 27, 2016 Page 3 of 2

Category	Original FTE	Year 1 FTE	Year 2 FTE	Year 3 FTE	Year 4 FTE	Year 5 FTE
Executive						
Management	34	28	27	27	27	27
Management	202	173	156	150	148	148
Non-Union	351	347	330	314	309	305
Union	1046	987	943	910	881	881
Total	1633	1535	1456	1401	1365	1361

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Asset Planning/Eng. Design			190		BU	SINESS CASE						REAL TO BE AND
Savings and Costs Summary		2016	185	2017	- ne	2018		2019	ST. A	2020		TOTAL
Total Synergy Savings - Labour	S	2,117,325	\$	2,944,655	\$	3,095,908	\$	3,315,141	\$	3,315,141	\$	14,788,169
Total Synergy Savings - Other	\$	200,000	\$	426,649	\$	430,049	\$	433,500	\$	437,002	S	1,927,201
One-Time Synergy Savings	S		\$	2.00	\$	(1 -1)	\$		\$		S	-
TOTAL SYNERGY SAVINGS	\$	2,317,325	\$	3,371,305	\$	3,525,957	\$	3,748,640	\$	3,752,143	\$	16,715,370
Total Avoided Costs - Labour	\$		\$	300,000	\$	1.5	\$	-	\$	-	\$	300,000
Total Avoided Costs - Other	\$		\$		\$	19	\$	-	\$	~	\$	-
One-Time Avoided Costs	\$		\$	1745	\$	160	\$	¥	\$	×	\$	147 - 147
TOTAL AVOIDED COSTS	\$	-	\$	300,000	\$	221	\$		\$		\$	300,000
Total Operating Savings (Synergy/Avoided)	\$	2,317,325	\$	3,671,305	\$	3,525,957	\$	3,748,640	\$	3,752,143	\$	17,015,370
LESS: Total On-Going Cost Increases	S	1,064,627	\$	1,064,627	\$	1,064,627	\$	1,064,627	\$	1,064,627	\$	5,323,133
TOTAL NET OPERATING SAVINGS	\$	1,252,699	\$	2,606,678	\$	2,461,330	\$	2,684,014	\$	2,687,516	\$	11,692,237
Total Transition Costs - (OM&A)	\$	200,000	\$	200,000	\$	200,000	\$	200,000	\$	200,000	\$	1,000,000
Total Transition Costs - (Capital)	\$	ð.=:	\$		\$	-	\$.	\$		\$	
TOTAL TRANSITION COSTS	\$	200,000	\$	200,000	\$	200,000	\$	200,000	\$	200,000	\$	1,000,000
Total Annual Capital Savings	\$	375,000	\$	200,000	\$	250,000	\$	200,000	\$		\$	1,025,001
Total One-Time Capital Savings	\$	1,000,000	\$	1,000,000	\$		\$		S		\$	2,000,000
TOTAL CAPITAL SAVINGS	\$	1,375,000	\$	1,200,000	\$	250,000	\$	200,000	\$	-	\$	3,025,001

Finance/Regulatory	Chief.		Str.	San Hand Ha	BUS	SINESS CASE	- 8 -					
Savings and Costs Summary		2016		2017	1111.5	2018	No.	2019	10 8	2020	See.	TOTAL
Total Synergy Savings - Labour	\$	1,445,720	\$	2,358,629	\$	4,779,043	\$	5,336,254	\$	6,655,320	\$	20,574,965
Total Synergy Savings - Other	\$	931,000	\$	1,176,000	\$	1,176,000	\$	1,176,000	\$	1,176,000	\$	5,635,000
One-Time Synergy Savings	\$	÷.	\$	*	\$		\$		\$		\$	
TOTAL SYNERGY SAVINGS	\$	2,376,720	\$	3,534,629	\$	5,955,043	\$	6,512,254	\$	7,831,320	\$	26,209,965
Total Avoided Costs - Labour	\$		\$	-	\$	គ	Ş		\$	-	\$	
Total Avoided Costs - Other	\$.	\$	-	\$		S		\$	<u>e</u> `	\$	-
One-Time Avoided Costs	\$	-	\$	×	\$		S		\$		\$	(A)
TOTAL AVOIDED COSTS	\$	5	\$	-	\$	¥.	\$	-	\$	44	\$	9 .
Total Operating Savings (Synergy/Avoided)	\$	2,376,720	\$	3,534,629	\$	5,955,043	\$	6,512,254	\$	7,831,320	\$	26,209,965
LESS: Total On-Going Cost Increases	5		\$	а.	\$	14	\$	-	\$		\$	⇒
TOTAL NET OPERATING SAVINGS	\$	2,376,720	\$	3,534,629	\$	5,955,043	\$	6,512,254	\$	7,831,320	\$	26,209,965
Total Transition Costs - (OM&A)	\$		\$		\$	5	\$		¢9	37/	\$	
Total Transition Costs - (Capital)	\$	400,000	\$	400,000	\$		S	-	\$	•	\$	800,000
TOTAL TRANSITION COSTS	\$	400,000	\$	400,000	\$		\$	•	\$		\$	800,000
Total Annual Capital Savings	\$		\$	1	\$	2	Ş	14 A	S	3 6 3	\$	
Total One-Time Capital Savings	\$		S		\$		\$		\$	(#C	S	-
TOTAL CAPITAL SAVINGS	\$	•	\$	All second second second	\$		\$	New Addate	\$	Annal and the own	\$	

HR/HSE/OE		17/1/2	n ban share in	BUS	SINESS CASE					
Savings and Costs Summary	2016	1 1	2017		2018	2019	2020	P.S.S.	TOTAL	
Total Synergy Savings - Labour	\$ 124,334	\$	1,112,566	\$	1,333,136	\$ 1,333,136	\$ 1,333,136	\$	5,236,308	
Total Synergy Savings - Other	\$ 2,509,893	\$	2,777,893	\$	2,692,893	\$ 2,777,893	\$ 2,692,893	\$	13,451,465	
One-Time Synergy Savings	\$ 100,000	\$	100,000	\$	· · ·	\$ 	\$ 	5	200,000	122
TOTAL SYNERGY SAVINGS	\$ 2,734,227	\$	3,990,459	\$	4,026,029	\$ 4,111,029	\$ 4,026,029	\$	18,887,773	187
Total Avoided Costs - Labour	\$ 1,144,801	\$	2,000,548	\$	2,380,918	\$ 2,850,433	\$ 2,871,348	\$	11,248,048	199
Total Avoided Costs - Other	\$ 30,000	\$	30,000	\$	30,000	\$ 30,000	\$ 30,000	\$	150,000	
One-Time Avoided Costs	\$ 180,000	\$	48,000	\$	36,000	\$ 36,000	\$ 12,000	\$	312,000	
TOTAL AVOIDED COSTS	\$ 1,354,801	\$	2,078,548	\$	2,446,918	\$ 2,916,433	\$ 2,913,348	\$	11,710,048	1.023
Total Operating Savings (Synergy/Avoided)	\$ 4,089,028	\$	6,069,007	\$	6,472,947	\$ 7,027,462	\$ 6,939,377	\$	30,597,821	7
LESS: Total On-Going Cost Increases	\$ 2,400,000	\$	2,400,000	S	2,400,000	\$ 2,400,000	\$ 2,400,000	\$	12,000,000	
TOTAL NET OPERATING SAVINGS	\$ 1,689,028	\$	3,669,007	\$	4,072,947	\$ 4,627,462	\$ 4,539,377	\$	18,597,821	
Total Transition Costs - (OM&A)	\$ 15,822,957	\$	9,103,240	\$	7,600,241	\$ 2,097,385	\$ 316,740	\$	34,940,563	135
Total Transition Costs - (Capital)	\$ 	\$	-	\$		\$ <u>u</u>	\$ 	\$	2 4 2	
TOTAL TRANSITION COSTS	\$ 15,822,957	\$	9,103,240	\$	7,600,241	\$ 2,097,385	\$ 316,740	\$	34,940,563	
Total Annual Capital Savings	\$ 941,248	\$	1,763,421	\$	2,026,111	\$ 2,237,846	\$ 2,305,504	\$	9,274,130	
Total One-Time Capital Savings	\$	\$	<u>4</u>	\$	-	\$	\$ 	\$	(•)	
TOTAL CAPITAL SAVINGS	\$ 941,248	\$	1,763,421	\$	2,026,111	\$ 2,237,846	\$ 2,305,504	\$	9,274,130	

Supply Chain	STO PT	BREAM DUVERS		BUS	SINESS CASE				1.25		North Andrews
Savings and Costs Summary		2016	2017	1	2018	210	2019		2020	1	TOTAL
Total Synergy Savings - Labour	\$	1,167,500	\$ 2,557,105	\$	3,045,649	\$	3,045,649	\$	3,045,649	\$	12,861,552
Total Synergy Savings - Other	\$	690,000	\$ 2,392,000	\$	2,392,000	\$	2,392,000	\$	2,392,000	\$	10,258,000
One-Time Synergy Savings	\$		\$	\$		\$		ŝ		\$	-
TOTAL SYNERGY SAVINGS	\$	1,857,500	\$ 4,949,105	\$	5,437,649	\$	5,437,649	\$	5,437,649	\$	23,119,552
Total Avoided Costs - Labour	\$	80,000	\$ 80,000	\$	80,000	\$	80,000	\$	80,000	\$	400,000
Total Avoided Costs - Other	\$	176,000	\$ 176,000	\$	176,000	\$	176,000	\$	176,000	69	880,000
One-Time Avoided Costs	\$	-	\$ 	\$	¥	\$	341	\$	5)	\$	
TOTAL AVOIDED COSTS	\$	256,000	\$ 256,000	\$	256,000	\$	256,000	\$	256,000	\$	1,280,000
Total Operating Savings (Synergy/Avoided)	\$	2,113,500	\$ 5,205,105	\$	5,693,649	\$	5,693,649	\$	5,693,649	\$	24,399,552
LESS: Total On-Going Cost Increases	\$	-	\$	\$		\$		\$		\$	•
TOTAL NET OPERATING SAVINGS	\$	2,113,500	\$ 5,205,105	\$	5,693,649	\$	5,693,649	\$	5,693,649	\$	24,399,552
Total Transition Costs - (OM&A)	\$	200,000	\$ 200,000	\$		\$	19	\$		\$	400,000
Total Transition Costs - (Capital)	\$		\$ 	\$	-	\$	1	\$	2 4)	\$	• 5
TOTAL TRANSITION COSTS	\$	200,000	\$ 200,000	\$	<u>av</u>	\$		\$	13 4 6	\$	400,000
Total Annual Capital Savings	\$	500,000	\$ 3,220,000	\$	3,220,000	S	3,220,000	\$	3,220,000	\$	13,380,000
Total One-Time Capital Savings	S		\$ 3 4 6	\$	(*)	\$		\$		\$	• 5
TOTAL CAPITAL SAVINGS	\$	500,000	\$ 3,220,000	\$	3,220,000	\$	3,220,000	\$	3,220,000	\$	13,380,000

Billing/Call Centre	281	N ALL SALE	2 ar		BUS	SINESS CASE						1 Alexandres in
Savings and Costs Summary		2016		2017		2018	ģi∎"	2019	16.	2020	1	TOTAL
Total Synergy Savings - Labour	\$	300,000	\$	1,200,000	\$	2,500,000	\$	7,800,000	\$	7,800,000	\$	19,600,000
Total Synergy Savings - Other	\$	550,000	\$	500,000	\$	550,000	\$	550,000	\$	550,000	\$	2,700,000
One-Time Synergy Savings	\$	1.72	\$		\$		\$	-	5		\$	÷ (5)
TOTAL SYNERGY SAVINGS	\$	850,000	\$	1,700,000	\$	3,050,000	\$	8,350,000	\$	8,350,000	\$	22,300,000
Total Avoided Costs - Labour	\$		\$		\$	2	\$		\$	-	\$	
Total Avoided Costs - Other	\$	2	\$	<u> 1</u>	\$	¥	\$		\$	-	\$	· /#
One-Time Avoided Costs	\$	350,000	\$	400,000	\$		\$	150,000	\$	-	\$	900,000
TOTAL AVOIDED COSTS	\$	350,000	\$	400,000	\$	*	\$	150,000	\$		\$	900,000
Total Operating Savings (Synergy/Avoided)	\$	1,200,000	\$	2,100,000	\$	3,050,000	\$	8,500,000	\$	8,350,000	\$	23,200,000
LESS: Total On-Going Cost Increases	\$	230,000	\$	430,000	\$	430,000	\$	430,000	\$	430,000	\$	1,950,000
TOTAL NET OPERATING SAVINGS	\$	970,000	\$	1,670,000	\$	2,620,000	\$	8,070,000	\$	7,920,000	\$	21,250,000
Total Transition Costs - (OM&A)	\$	F	\$		\$		\$	Ĵ.	\$	-	\$	-
Total Transition Costs - (Capital)	\$	Ē.	Ŝ		\$	·····	\$		\$	Faile	\$	
TOTAL TRANSITION COSTS	\$		\$. <u>.</u>	\$	4	\$		\$	143 - C	\$	-
Total Annual Capital Savings	\$	300,000	\$	300,000	\$	300,000	\$	300,000	\$	300,000	\$	1,500,000
Total One-Time Capital Savings	\$		\$		\$	1	S		\$	(4)	\$	
TOTAL CAPITAL SAVINGS	\$	300,000	\$	300,000	\$	300,000	\$	300,000	\$	300,000	\$	1,500,000

T. Contraction of the second se	Carlo C		2.4		BUS	SINESS CASE		SH MARKEN	1.8	Street and	112	
Savings and Costs Summary		2016		2017		2018	12	2019	12.5	2020	11 1	TOTAL
Total Synergy Savings - Labour	\$	490,536	\$	929,197	\$	3,685,103	\$	3,740,380	\$	4,198,315	\$	13,043,531
Total Synergy Savings - Other	\$	613,056	\$	936,987	\$	3,308,371	\$	5,302,702	\$	5,382,487	\$	15,543,602
One-Time Synergy Savings	\$	-	\$	-	\$		\$	-	\$		\$	
TOTAL SYNERGY SAVINGS	\$	1,103,592	\$	1,866,184	\$	6,993,474	\$	9,043,082	\$	9,580,802	\$	28,587,133
Total Avoided Costs - Labour	\$	-	\$	-	\$		\$		\$	(a)	\$	- 18
Total Avoided Costs - Other	\$	÷	\$		\$	a (\$		\$		\$	- 19
One-Time Avoided Costs	\$		\$	- 12 P	\$	1961) 1961)	Ş		\$	3.00	\$	-
TOTAL AVOIDED COSTS	\$	ě.	\$		\$	1	\$		\$	2 9 0	\$	-
Total Operating Savings (Synergy/Avoided)	s	1,103,592	\$	1,866,184	\$	6,993,474	\$	9,043,082	\$	9,580,802	\$	28,587,133
LESS: Total On-Going Cost Increases	\$	1,522,207	\$	1,951,207	\$	1,981,207	\$	2,042,507	\$	2,042,507	\$	9,539,633
TOTAL NET OPERATING SAVINGS	\$	(418,615)	\$	(85,023)	\$	5,012,267	\$	7,000,575	\$	7,538,295	\$	19,047,500
Total Transition Costs - (OM&A)	\$	2,368,251	\$	1,163,016	\$	286,966	\$	•	\$	1	\$	3,818,233
Total Transition Costs - (Capital)	\$	31,970,653	\$	14,748,292	\$	4,425,246	S		\$		\$	51,144,191
TOTAL TRANSITION COSTS	\$	34,338,904	\$	15,911,308	\$	4,712,212	\$	5 4 3	\$		\$	54,962,424
Total Annual Capital Savings	\$		\$	94 C	\$	Sec	\$	5 2 2	\$		\$	· ()
Total One-Time Capital Savings	\$	17,764,557	\$	13,787,651	\$	20,807,509	\$	15,052,611	\$	21,963,633	\$	89,375,961
TOTAL CAPITAL SAVINGS	\$	17,764,557	\$	13,787,651	\$	20,807,509	\$	15,052,611	\$	21,963,633	\$	89,375,961
	Se 50	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1000		- 11 ⁻²						William St	Martin Press Contact

3-Way+HOBI Savings-Costs

Operations	W.			BUS	SINESS CASE	53			
Savings and Costs Summary		2016	2017		2018		2019	2020	TOTAL
Total Synergy Savings - Labour	\$	4,603,222	\$ 7,766,891	\$	10,029,251	\$	10,029,791	\$ 10,213,821	\$ 42,642,976
Total Synergy Savings - Other	\$	300,000	\$ 300,000	\$	(615,000)	\$	(615,000)	\$ (615,000)	\$ (1,245,000)
One-Time Synergy Savings	\$	•	\$	\$		\$		\$ -	\$ -
TOTAL SYNERGY SAVINGS	\$	4,903,222	\$ 8,066,891	\$	9,414,251	\$	9,414,791	\$ 9,598,821	\$ 41,397,976
Total Avoided Costs - Labour	\$	-	\$ 8	\$	-	\$	<u>u</u>	\$ 2	\$
Total Avoided Costs - Other	\$	-	\$ ÷	\$	¥	\$	2	\$ 	\$
One-Time Avoided Costs	\$	÷.	\$ ÷	\$		\$	*	\$ *)	\$ -
TOTAL AVOIDED COSTS	\$		\$	\$		\$	-	\$ (1	\$
Total Operating Savings (Synergy/Avoided)	\$	4,903,222	\$ 8,066,891	\$	9,414,251	\$	9,414,791	\$ 9,598,821	\$ 41,397,976
LESS: Total On-Going Cost Increases	\$	916,630	\$ 916,630	\$	916,630	\$	916,630	\$ 916,630	\$ 4,583,150
TOTAL NET OPERATING SAVINGS	\$	3,986,592	\$ 7,150,261	\$	8,497,621	\$	8,498,161	\$ 8,682,191	\$ 36,814,826
Total Transition Costs - (OM&A)	\$	-	\$ -	\$		\$		\$ 	\$
Total Transition Costs - (Capital)	\$	T .	\$	\$		\$		\$ 	\$ •
TOTAL TRANSITION COSTS	\$		\$	\$		\$	5 <u>-</u>	\$	\$ -
Total Annual Capital Savings	\$	2,092,015	\$ 2,092,015	\$	2,092,015	\$	2,092,015	\$ 2,092,015	\$ 10,460,075
Total One-Time Capital Savings	\$		\$ ų.	\$		\$		\$ •	\$ -
TOTAL CAPITAL SAVINGS	\$	2,092,015	\$ 2,092,015	\$	2,092,015	\$	2,092,015	\$ 2,092,015	\$ 10,460,075

Metering			14	The state of the state of the	BUS	SINESS CASE	Said				THE NEW	
Savings and Costs Summary	91. S	2016		2017		2018		2019		2020		TOTAL
Total Synergy Savings - Labour	\$	324,812	\$	879,312	\$	1,056,212	\$	1,157,620	Ş	1,259,036	\$	4,676,992
Total Synergy Savings - Other	\$	96,000	\$	419,750	Ş	531,562	\$	534,562	\$	538,012	\$	2,119,886
One-Time Synergy Savings	\$		\$	-	\$		\$	200	\$		\$	· ·
TOTAL SYNERGY SAVINGS	\$	420,812	\$	1,299,062	\$	1,587,774	\$	1,692,182	\$	1,797,048	\$	6,796,878
Total Avoided Costs - Labour	\$:=	\$		\$	÷	\$		\$	1. A.	\$	-
Total Avoided Costs - Other	\$	i.	\$	100,000	\$	100,000	\$	100,000	\$	100,000	\$	400,000
One-Time Avoided Costs	\$		\$		\$		\$	543	5	S	\$	
TOTAL AVOIDED COSTS	\$		\$	100,000	\$	100,000	\$	100,000	\$	100,000	\$	400,000
Total Operating Savings (Synergy/Avoided)	\$	420,812	\$	1,399,062	\$	1,687,774	\$	1,792,182	\$	1,897,048	\$	7,196,878
LESS: Total On-Going Cost Increases	\$	10,000	\$	10,000	\$	10,000	\$	10,000	\$	10,000	\$	50,000
TOTAL NET OPERATING SAVINGS	\$	410,812	\$	1,389,062	\$	1,677,774	\$	1,782,182	\$	1,887,048	\$	7,146,878
Total Transition Costs - (OM&A)	\$	200,000	\$	250,000	\$	100,000	\$	15. I	\$	5	\$	550,000
Total Transition Costs - (Capital)	\$	-	\$	45,000	\$		\$		\$		\$	45,000
TOTAL TRANSITION COSTS	\$	200,000	\$	295,000	\$	100,000	\$		\$		\$	595,000
Total Annual Capital Savings	\$		\$	101,500	\$	101,500	Ş	101,500	\$	101,500	\$	406,000
Total One-Time Capital Savings	\$		\$	100,000	\$	1 4 2	\$		\$	8 9 3	\$	100,000
TOTAL CAPITAL SAVINGS	\$	[●) <u>;</u>	\$	201,500	\$	101,500	\$	101,500	\$	101,500	\$	506,000

CDM		HEW CLEAR D	BUS	SINESS CASE		联合派的主要 的				
	2016	2017	135	2018		2019		2020	Ser.	TOTAL
Total Synergy Savings - Labour	\$ +	\$ 2.4	\$		\$		\$	-	\$	
Total Synergy Savings - Other	\$ 55,000	\$ 55,000	\$	55,000	\$	55,000	\$	55,000	\$	275,000
One-Time Synergy Savings	\$ 	\$ -	\$		\$		\$		\$	
TOTAL SYNERGY SAVINGS	\$ 55,000	\$ 55,000	\$	55,000	\$	55,000	\$	55,000	\$	275,000
Total Avoided Costs - Labour	\$	\$ -	\$		\$	-	\$		\$	
Total Avoided Costs - Other	\$	\$ -	\$	-	\$		\$		\$	
One-Time Avoided Costs	\$ 19 - C	\$ 2.4	\$	*	\$	•	\$	-	S	
TOTAL AVOIDED COSTS	\$ 	\$ -	\$		\$	•	\$		\$	× .
Total Operating Savings (Synergy/Avoided)	\$ 55,000	\$ 55,000	\$	55,000	\$	55,000	\$	55,000	Ş	275,000
LESS: Total On-Going Cost Increases	\$ 325,688	\$ 361,876	\$	398,063	S	398,063	\$	398,063	\$	1,881,754
TOTAL NET OPERATING SAVINGS	\$ (270,688)	\$ (306,876)	\$	(343,063)	S	(343,063)	Ş	(343,063)	\$	(1,606,754)
Total Transition Costs - (OM&A)	\$ 5 	\$ -	\$		\$		\$	-	\$	•
Total Transition Costs - (Capital)	\$ 555	\$	\$		\$		\$	•	\$	14 ji
TOTAL TRANSITION COSTS	\$	\$	\$		\$		\$	-	\$	
Total Annual Capital Savings	\$ 175	\$ 	\$		\$	-	\$	-	\$	245
Total One-Time Capital Savings	\$ -	\$ · · · · · ·	\$	-	\$	<u>u</u>	S	¥	\$	145
TOTAL CAPITAL SAVINGS	\$	\$ -	\$		\$	- 	\$	ASSESSMENTS .	\$	•

Corporate Relations	100		500		BUS	SINESS CASE	2	いい 確心 かん	2474		184	
	12 1	2016		2017	2	2018	200	2019		2020		TOTAL
Total Synergy Savings - Labour	\$	124,334	\$	124,334	\$	712,964	\$	712,964	\$	712,964	\$3	2,387,560
Total Synergy Savings - Other	\$	15,000	\$	115,000	\$	350,000	\$	350,000	\$	350,000	\$	1,180,000
One-Time Synergy Savings	\$	-	\$		\$	1	\$	-	\$	•	\$	
TOTAL SYNERGY SAVINGS	\$	139,334	\$	239,334	\$	1,062,964	\$	1,062,964	\$	1,062,964	\$	3,567,560
Total Avoided Costs - Labour	\$	-	\$	5	\$		\$		\$	-	\$	
Total Avoided Costs - Other	\$	-	\$		\$	•	\$		\$	343	\$	
One-Time Avoided Costs	\$		\$		\$		\$		S	342	5	
TOTAL AVOIDED COSTS	\$	-	\$		\$	¥.	\$		\$		\$	•
Total Operating Savings (Synergy/Avoided)	\$	139,334	\$	239,334	\$	1,062,964	\$	1,062,964	\$	1,062,964	\$	3,567,560
LESS: Total On-Going Cost Increases	\$	10,000	\$	10,000	\$	5,000	\$	5,000	\$	5,000	\$	35,000
TOTAL NET OPERATING SAVINGS	\$	129,334	\$	229,334	\$	1,057,964	\$	1,057,964	\$	1,057,964	\$	3,532,560
Total Transition Costs - (OM&A)	\$	2,075,000	\$	150,000	\$		\$	2 /1	\$	•	\$	2,225,000
Total Transition Costs - (Capital)	\$	1,350,000	\$		\$	•,	\$		\$		\$	1,350,000
TOTAL TRANSITION COSTS	\$	3,425,000	\$	150,000	\$		\$		\$	-	\$	3,575,000
Total Annual Capital Savings	\$		\$	2	\$	<u>74</u>	\$	(a)	\$		\$	
Total One-Time Capital Savings	\$		\$	100 A	\$	1	S	(4)	\$	1.01	\$	
TOTAL CAPITAL SAVINGS	\$		\$		\$	• •	\$	-	\$		\$	-

Asset Planning/Eng. Design			-925	A Displayers	BU	SINESS CASE						
Savings and Costs Summary	84-01-1	2016		2017		2018		2019		2020	145	TOTAL
Total Synergy Savings - Labour	\$	1,963,647	\$	1,963,647	\$	1,963,647	\$	1,963,647	\$	1,963,647	\$	9,818,235
Total Synergy Savings - Other	\$	200,000	\$	426,649	\$	430,049	\$	433,500	\$	437,002	\$	1,927,201
One-Time Synergy Savings	\$	3 -	\$	¥	\$		S	*	S		\$. 8
TOTAL SYNERGY SAVINGS	\$	2,163,647	\$	2,390,297	\$	2,393,696	\$	2,397,147	\$	2,400,649	\$	11,745,436
Total Avoided Costs - Labour	\$		\$	300,000	\$		\$	7	\$		\$	300,000
Total Avoided Costs - Other	\$		\$		\$		\$	2	\$	-	\$	•
One-Time Avoided Costs	\$		\$	÷	\$		\$		\$		\$	· ·
TOTAL AVOIDED COSTS	\$		\$	300,000	\$	<u>.</u>	\$	- 2	\$	÷	\$	300,000
Total Operating Savings (Synergy/Avoided)	\$	2,163,647	\$	2,690,297	\$	2,393,696	\$	2,397,147	\$	2,400,649	\$	12,045,436
LESS: Total On-Going Cost Increases	\$	151,253	\$	151,253	\$	151,253	\$	151,253	\$	151,253	\$	756,263
TOTAL NET OPERATING SAVINGS	\$	2,012,395	\$	2,539,044	\$	2,242,444	\$	2,245,894	\$	2,249,397	\$	11,289,174
Total Transition Costs - (OM&A)	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	750,000
Total Transition Costs - (Capital)	\$	-	\$	÷	\$	•	\$	-	\$	-	\$	
TOTAL TRANSITION COSTS	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	750,000
Total Annual Capital Savings	\$	375,000	\$	200,000	\$	250,000	\$	200,000	\$	(a))	\$	1,025,001
Total One-Time Capital Savings	\$	1,000,000	\$	1,000,000	\$		\$		S	÷	\$	2,000,000
TOTAL CAPITAL SAVINGS	\$	1,375,000	\$	1,200,000	\$	250,000	\$	200,000	\$		\$	3,025,001

Finance/Regulatory	19 A.				BUS	SINESS CASE	128		5 V.	200 - A. B. B.		
Savings and Costs Summary		2016	128.	2017		2018		2019	125	2020		TOTAL
Total Synergy Savings - Labour	\$	1,274,031	\$	4,981,451	\$	5,093,801	\$	5,510,200	\$	5,835,042	\$	22,694,524
Total Synergy Savings - Other	\$	656,000	\$	851,000	\$	851,000	\$	851,000	\$	851,000	\$	4,060,000
One-Time Synergy Savings	\$		\$	2	\$	-	\$	18 S	\$		\$	
TOTAL SYNERGY SAVINGS	\$	1,930,031	\$	5,832,451	\$	5,944,801	\$	6,361,200	\$	6,686,042	\$	26,754,524
Total Avoided Costs - Labour	\$		\$		\$		\$	(a)	\$:2	\$	1.5
Total Avoided Costs - Other	\$		\$		\$	2 1	\$		\$)®(\$	-
One-Time Avoided Costs	\$		\$	-	\$	570	\$		\$	(e)	\$	-
TOTAL AVOIDED COSTS	\$		\$		\$	S .	\$		\$)5	\$	· · ·
Total Operating Savings (Synergy/Avoided)	\$	1,930,031	\$	5,832,451	\$	5,944,801	\$	6,361,200	\$	6,686,042	\$	26,754,524
LESS: Total On-Going Cost Increases	\$		\$	•	\$		\$	5 6 3	\$:•:	\$	+
TOTAL NET OPERATING SAVINGS	\$	1,930,031	\$	5,832,451	\$	5,944,801	\$	6,361,200	\$	6,686,042	\$	26,754,524
Total Transition Costs - (OM&A)	\$		\$	Ne:	\$		\$	(*)	\$	-	\$	- 1
Total Transition Costs - (Capital)	\$	-	\$		\$	90	5		\$		\$	-
TOTAL TRANSITION COSTS	\$	-	\$.	\$	\$ # .6	\$	354	\$	<u>.</u>	\$	<u>.</u>
Total Annual Capital Savings	\$	(•)	\$	(H)	\$	(1 3)	\$		\$		\$	• 8
Total One-Time Capital Savings	\$		\$	1.5	\$		\$		\$		S	
TOTAL CAPITAL SAVINGS	\$	2 .	\$	€c	\$		\$	(¥]	\$		\$	• •
	The said	Section 1	-	E MINER S SING	2.24	all shows and		Sector Constraint Sector		1.50 C. C.		

HR/HSE/OE			BU	SINESS CASE						States and
Savings and Costs Summary	2016	2017	147	2018	13	2019	- 21	2020	(ited)	TOTAL
Total Synergy Savings - Labour	\$ 124,334	\$ 906,066	\$	1,126,636	\$	1,126,636	Ş	1,126,636	\$	4,410,308
Total Synergy Savings - Other	\$ 2,489,893	\$ 2,672,893	\$	2,622,893	\$	2,672,893	\$	2,622,893	\$	13,081,465
One-Time Synergy Savings	\$ 100,000	\$ 100,000	\$	•	\$	×	\$	-	\$	200,000
TOTAL SYNERGY SAVINGS	\$ 2,714,227	\$ 3,678,959	\$	3,749,529	\$	3,799,529	\$	3,749,529	\$	17,691,773
Total Avoided Costs - Labour	\$ 1,144,801	\$ 2,000,548	\$	2,380,918	\$	2,850,433	\$	2,871,348	\$	11,248,048
Total Avoided Costs - Other	\$ 30,000	\$ 30,000	\$	30,000	Ş	30,000	\$	30,000	\$	150,000
One-Time Avoided Costs	\$ 180,000	\$ 48,000	\$	36,000	Ş	36,000	\$	12,000	\$	312,000
TOTAL AVOIDED COSTS	\$ 1,354,801	\$ 2,078,548	\$	2,446,918	\$	2,916,433	\$	2,913,348	\$	11,710,048
Total Operating Savings (Synergy/Avoided)	\$ 4,069,028	\$ 5,757,507	\$	6,196,447	\$	6,715,962	\$	6,662,877	\$	29,401,821
LESS: Total On-Going Cost Increases	\$ 1,600,000	\$ 1,600,000	\$	1,600,000	\$	1,600,000	\$	1,600,000	\$	8,000,000
TOTAL NET OPERATING SAVINGS	\$ 2,469,028	\$ 4,157,507	\$	4,596,447	\$	5,115,962	\$	5,062,877	\$	21,401,821
Total Transition Costs - (OM&A)	\$ 18,200,000	\$ 6,400,000	\$	2,400,000	\$	110,000	\$		\$	27,110,000
Total Transition Costs - (Capital)	\$ 	\$ -	\$	*	\$	3	\$	-	\$	
TOTAL TRANSITION COSTS	\$ 18,200,000	\$ 6,400,000	\$	2,400,000	\$	110,000	\$.	\$	27,110,000
Total Annual Capital Savings	\$ 941,248	\$ 1,763,421	\$	2,026,111	\$	2,237,846	\$	2,305,504	\$	9,274,130
Total One-Time Capital Savings	\$ +	\$	\$		5	1	S		\$	
TOTAL CAPITAL SAVINGS	\$ 941,248	\$ 1,763,421	\$	2,026,111	\$	2,237,846	\$	2,305,504	\$	9,274,130

Supply Chain				BUS	SINESS CASE						大海美市 法自由
Savings and Costs Summary	2016		2017		2018	-7.5	2019		2020	200	TOTAL
Total Synergy Savings - Labour	\$ 900,000	\$	1,726,186	\$	2,864,590	\$	2,864,590	\$	2,864,590	\$	11,219,956
Total Synergy Savings - Other	\$ 690,000	\$	2,312,000	\$	2,312,000	\$	2,312,000	\$	2,312,000	\$	9,938,000
One-Time Synergy Savings	\$ 	\$	<u> </u>	\$	N	\$	-	\$		\$	-
TOTAL SYNERGY SAVINGS	\$ 1,590,000	\$	4,038,186	\$	5,176,590	\$	5,176,590	\$	5,176,590	\$	21,157,956
Total Avoided Costs - Labour	\$ 70,000	\$	70,000	\$	70,000	\$	70,000	\$	70,000	\$	350,000
Total Avoided Costs - Other	\$ 150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	750,000
One-Time Avoided Costs	\$ 	\$	-	\$		\$		5		\$	-
TOTAL AVOIDED COSTS	\$ 220,000	\$	220,000	\$	220,000	\$	220,000	\$	220,000	\$	1,100,000
Total Operating Savings (Synergy/Avoided)	\$ 1,810,000	\$	4,258,186	\$	5,396,590	\$	5,396,590	\$	5,396,590	\$	22,257,956
LESS: Total On-Going Cost Increases	\$	S	-	\$		\$		\$	340	\$	•
TOTAL NET OPERATING SAVINGS	\$ 1,810,000	\$	4,258,186	\$	5,396,590	\$	5,396,590	\$	5,396,590	\$	22,257,956
Total Transition Costs - (OM&A)	\$ 200,000	\$	540	\$	8-02	\$		\$:::	\$	200,000
Total Transition Costs - (Capital)	\$ 	\$.	\$		\$	36	\$	(5)	\$	
TOTAL TRANSITION COSTS	\$ 200,000	\$		\$		\$		\$		\$	200,000
Total Annual Capital Savings	\$ 500,000	\$	2,900,000	\$	2,900,000	\$	2,900,000	\$	2,900,000	\$	12,100,000
Total One-Time Capital Savings	\$ 9 8 5	\$		Ś		\$		\$	//24	\$	
TOTAL CAPITAL SAVINGS	\$ 500,000	\$	2,900,000	\$	2,900,000	\$	2,900,000	\$	2,900,000	\$	12,100,000

Billing/Call Centre	100			BU	SINESS CASE			STA.	Selection of the		
Savings and Costs Summary	TO SAL	2016	2017	(ALA)	2018		2019		2020	Sec.	TOTAL
Total Synergy Savings - Labour	\$	500,000	\$ 2,000,000	\$	4,000,000	\$	7,600,000	\$	7,600,000	\$	21,700,000
Total Synergy Savings - Other	\$	700,000	\$ 550,000	()	550,000	\$	550,000	\$	550,000	\$	2,900,000
One-Time Synergy Savings	\$	Ħ	\$ 	5	2	\$		\$		\$	
TOTAL SYNERGY SAVINGS	\$	1,200,000	\$ 2,550,000	\$	4,550,000	\$	8,150,000	\$	8,150,000	\$	24,600,000
Total Avoided Costs - Labour	\$	-	\$ ~	\$	3	\$		\$	8	\$	
Total Avoided Costs - Other	\$		\$ 8	\$	<u>a</u>	S	-	\$	3 4 0	\$	
One-Time Avoided Costs	\$	350,000	\$ 400,000	\$	2	\$	150,000	\$	(*)	\$	900,000
TOTAL AVOIDED COSTS	\$	350,000	\$ 400,000	\$	4	\$	150,000	\$	3 - 2	\$	900,000
Total Operating Savings (Synergy/Avoided)	\$	1,550,000	\$ 2,950,000	49	4,550,000	\$	8,300,000	\$	8,150,000	\$	25,500,000
LESS: Total On-Going Cost Increases	\$	730,000	\$ 930,000	\$	930,000	\$	930,000	\$	930,000	\$	4,450,000
TOTAL NET OPERATING SAVINGS	\$	820,000	\$ 2,020,000	\$	3,620,000	\$	7,370,000	\$	7,220,000	\$	21,050,000
Total Transition Costs - (OM&A)	\$		\$ 	\$		\$	19 0	\$	5 7 5	\$	1.00
Total Transition Costs - (Capital)	\$		\$ -	\$		\$		\$		\$	-
TOTAL TRANSITION COSTS	\$		\$ 	\$	5	\$	-	\$		\$	
Total Annual Capital Savings	\$	300,000	\$ 300,000	\$	300,000	\$	300,000	\$	300,000	\$	1,500,000
Total One-Time Capital Savings	\$	750,000	\$ 	\$		\$	÷	\$		\$	750,000
TOTAL CAPITAL SAVINGS	\$	1,050,000	\$ 300,000	\$	300,000	\$	300,000	\$	300,000	\$	2,250,000

IT where the second		A Section of the	23.3		BUS	SINESS CASE						
Savings and Costs Summary		2016		2017	Cont.	2018	11.1	2019	2	2020	1	TOTAL
Total Synergy Savings - Labour	\$	508,310	\$	896,603	\$	3,148,290	\$	3,233,554	\$	3,321,171	\$	11,107,930
Total Synergy Savings - Other	\$	363,056	\$	836,987	\$	2,941,171	\$	4,935,502	\$	5,015,287	\$	14,092,002
One-Time Synergy Savings	\$		S	(* 5)	\$	3 # 0	\$	-	\$		\$	-
TOTAL SYNERGY SAVINGS	\$	871,366	\$	1,733,590	\$	6,089,461	\$	8,169,056	\$	8,336,458	\$	25,199,931
Total Avoided Costs - Labour	\$	-	\$		\$	(.	\$		\$	÷	\$	-
Total Avoided Costs - Other	\$		\$	3 5 3	\$	3.50	\$	•	\$	(e)	\$	÷
One-Time Avoided Costs	\$		\$		\$		5	w	\$	14 ⁴	\$	<u> </u>
TOTAL AVOIDED COSTS	\$	-	\$		\$	-	\$		\$	S S	\$	-
Total Operating Savings (Synergy/Avoided)	\$	871,366	\$	1,733,590	\$	6,089,461	\$	8,169,056	\$	8,336,458	\$	25,199,931
LESS: Total On-Going Cost Increases	\$	1,451,633	\$	1,451,633	\$	1,451,633	\$	1,451,633	\$	1,451,633	\$	7,258,163
TOTAL NET OPERATING SAVINGS	\$	(580,267)	\$	281,957	\$	4,637,828	\$	6,717,424	\$	6,884,826	\$	17,941,769
Total Transition Costs - (OM&A)	\$	1,496,359	\$	801,051	\$	286,966	\$		\$	8 :	\$	2,584,376
Total Transition Costs - (Capital)	\$	18,267,533	\$	8,257,052	\$	2,044,872	S		5		\$	28,569,457
TOTAL TRANSITION COSTS	\$	19,763,892	\$	9,058,103	\$	2,331,838	\$		\$		\$	31,153,833
Total Annual Capital Savings	\$		\$	-	\$	-	\$		\$	-	\$	
Total One-Time Capital Savings	\$	10,914,557	\$	13,342,651	\$	6,711,509	\$	6,656,611	\$	21,624,103	S	59,249,431
TOTAL CAPITAL SAVINGS	\$	10,914,557	\$	13,342,651	\$	6,711,509	\$	6,656,611	\$	21,624,103	\$	59,249,431
	10151	1.5	F CHINES	SALE STREET	TTT:	Stand Stand of						and the state of the

Operations			14		BUS	INESS CASE			100	- Although	
Savings and Costs Summary	22218	2016	Sel 1	2017		2018	2.5%	2019	1.00	2020	TOTAL
Total Synergy Savings - Labour	\$	3,795,878	\$	5,454,725	\$	7,654,645	\$	7,655,005	\$	7,810,005	\$ 32,370,258
Total Synergy Savings - Other	\$	200,000	\$	200,000	\$	(715,000)	\$	(715,000)	\$	(715,000)	\$ (1,745,000)
One-Time Synergy Savings	\$		\$		\$	3 4 9	\$	300	Ş	300	\$
TOTAL SYNERGY SAVINGS	\$	3,995,878	\$	5,654,725	\$	6,939,645	\$	6,940,005	\$	7,095,005	\$ 30,625,258
Total Avoided Costs - Labour	\$	-	\$		\$	3400	\$		\$	S	\$
Total Avoided Costs - Other	\$		\$	S e (\$	5 7 2	\$	-	\$	18	\$ •
One-Time Avoided Costs	S	-	\$		\$	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	\$		\$		\$
TOTAL AVOIDED COSTS	\$		\$		\$	(e)	\$		\$		\$ •
Total Operating Savings (Synergy/Avoided)	\$	3,995,878	\$	5,654,725	\$	6,939,645	\$	6,940,005	\$	7,095,005	\$ 30,625,258
LESS: Total On-Going Cost Increases	\$	916,630	\$	916,630	\$	916,630	\$	916,630	\$	916,630	\$ 4,583,150
TOTAL NET OPERATING SAVINGS	\$	3,079,248	\$	4,738,095	\$	6,023,015	\$	6,023,375	\$	6,178,375	\$ 26,042,108
Total Transition Costs - (OM&A)	\$	4	\$		\$		\$	2 4 2	\$	0.00	\$ -
Total Transition Costs - (Capital)	\$	-	\$	÷	\$		\$	100	\$	1,000,000	\$ 1,000,000
TOTAL TRANSITION COSTS	\$		\$	5 - 5	\$	5.005	\$	(1)	\$	1,000,000	\$ 1,000,000
Total Annual Capital Savings	\$	1,684,030	\$	1,684,030	\$	1,684,030	\$	1,684,030	\$	1,684,030	\$ 8,420,150
Total One-Time Capital Savings	\$		\$		\$	3.50	\$	0.55	\$	-	\$
TOTAL CAPITAL SAVINGS	\$	1,684,030	\$	1,684,030	\$	1,684,030	\$	1,684,030	\$	1,684,030	\$ 8,420,150

Metering	1.0	STO.		BUS	SINESS CASE	1/21			- 8 - C		Real Francisco
Savings and Costs Summary	2016		2017		2018	12	2019	E	2020	2005	TOTAL
Total Synergy Savings - Labour	\$ 3.)	\$	541,500	\$	718,000	\$	819,000	\$	920,000	\$	2,998,500
Total Synergy Savings - Other	\$ 96,000	\$	138,000	\$	241,000	S	257,000	\$	251,000	\$	983,000
One-Time Synergy Savings	\$ 	\$		\$		\$		\$	×	\$	· · · · ·
TOTAL SYNERGY SAVINGS	\$ 96,000	\$	679,500	\$	959,000	\$	1,076,000	\$	1,171,000	\$	3,981,500
Total Avoided Costs - Labour	\$ 	\$		\$	•	\$	-	\$		\$	-
Total Avoided Costs - Other	\$ 244	\$	100,000	\$	100,000	\$	100,000	\$	100,000	\$	400,000
One-Time Avoided Costs	\$ 0.ed	\$		\$	-	\$	-	\$	•	\$	
TOTAL AVOIDED COSTS	\$ 0.00	\$	100,000	\$	100,000	\$	100,000	\$	100,000	\$	400,000
Total Operating Savings (Synergy/Avoided)	\$ 96,000	\$	779,500	\$	1,059,000	\$	1,176,000	\$	1,271,000	\$	4,381,500
LESS: Total On-Going Cost Increases	\$ 10.000	\$	10,000	\$	10,000	\$	10,000	\$	10,000	\$	50,000
TOTAL NET OPERATING SAVINGS	\$ 86,000	\$	769,500	\$	1,049,000	\$	1,166,000	\$	1,261,000	\$	4,331,500
Total Transition Costs - (OM&A)	\$ 50,000	\$	8	\$		\$		\$		\$	50,000
Total Transition Costs - (Capital)	\$ 	\$	45,000	\$	4	\$	3	\$	-	\$	45,000
TOTAL TRANSITION COSTS	\$ 50,000	\$	45,000	\$		\$	#	\$	5	\$	95,000
Total Annual Capital Savings	\$ 4	\$	85,000	\$	85,000	\$	85,000	\$	85,000	\$	340,000
Total One-Time Capital Savings	\$ -	\$	100,000	\$	-	\$		\$	<u>Š</u>	\$	100,000
TOTAL CAPITAL SAVINGS	\$ •	\$	185,000	\$	85,000	\$	85,000	\$	85,000	\$	440,000

CDM				BUS	SINESS CASE						
	2016	U.	2017	in the	2018		2019	ř.	2020	and the	TOTAL
Total Synergy Savings - Labour	\$ 0.751	\$		\$		\$		\$	1. T	\$	-
Total Synergy Savings - Other	\$ 50,000	\$	50,000	\$	50,000	\$	50,000	\$	50,000	\$	250,000
One-Time Synergy Savings	\$ 540	\$		\$		S	-	\$	-	\$	
TOTAL SYNERGY SAVINGS	\$ 50,000	\$	50,000	\$	50,000	\$	50,000	\$	50,000	\$	250,000
Total Avoided Costs - Labour	\$ -	\$	*	\$		\$	× .	\$	+	\$	
Total Avoided Costs - Other	\$ 0 9 2	\$		\$	7	\$	-	\$		\$	5.5
One-Time Avoided Costs	\$ -	\$		\$		\$	-	\$		\$	•
TOTAL AVOIDED COSTS	\$ 	\$		\$	<u>,</u>	\$		\$	1	\$	
Total Operating Savings (Synergy/Avoided)	\$ 50,000	\$	50,000	\$	50,000	\$	50,000	\$	50,000	\$	250,000
LESS: Total On-Going Cost Increases	\$ 1,315,698	\$	1,315,698	\$	1,315,698	\$	1,315,698	\$	1,315,698	\$	6,578,489
TOTAL NET OPERATING SAVINGS	\$ (1,265,698)	Ş	(1,265,698)	\$	(1,265,698)	\$	(1,265,698)	\$	(1,265,698)	\$	(6,328,489)
Total Transition Costs - (OM&A)	\$ ¥	\$		\$	¥	\$	4	\$		\$	
Total Transition Costs - (Capital)	\$	\$	<u>1</u>	\$		\$		\$	(•);	\$	-
TOTAL TRANSITION COSTS	\$ 	\$		\$		\$		\$		\$	
Total Annual Capital Savings	\$ 	\$	*	\$	-	\$9	i.	\$		\$	
Total One-Time Capital Savings	\$ •	\$		\$	-	\$		\$	2 7 .0	\$	
TOTAL CAPITAL SAVINGS	\$	\$	-	\$		\$		\$		\$	-

Corporate Relations				and the second second	BUS	INESS CASE	incompany and	Mr. Fr			
		2016	ien i	2017		2018	2019		2020	100	TOTAL
Total Synergy Savings - Labour	\$	250,000	\$	250,000	\$	460,000	\$ 460,000	\$	460,000	\$	1,880,000
Total Synergy Savings - Other	\$	15,000	\$	115,000	\$	350,000	\$ 350,000	\$	350,000	\$	1,180,000
One-Time Synergy Savings	\$		\$	-	\$	2	\$ -	\$) = 2	\$	-
TOTAL SYNERGY SAVINGS	\$	265,000	\$	365,000	\$	810,000	\$ 810,000	\$	810,000	\$	3,060,000
Total Avoided Costs - Labour	\$	¥	\$		\$	-	\$ •	\$	(#)	\$	-
Total Avoided Costs - Other	\$. Э	\$		\$		\$	\$	÷.	\$	• B
One-Time Avoided Costs	\$		\$		\$	0 at 1	\$ e)	\$		\$	-
TOTAL AVOIDED COSTS	\$	-	\$		\$		\$ •	\$	•	\$	· (4
Total Operating Savings (Synergy/Avoided)	\$	265,000	\$	365,000	\$	810,000	\$ 810,000	S	810,000	\$	3,060,000
LESS: Total On-Going Cost Increases	\$	10,000	\$	10,000	\$	5,000	\$ 5,000	\$	5,000	\$	35,000
TOTAL NET OPERATING SAVINGS	\$	255,000	\$	355,000	\$	805,000	\$ 805,000	\$	805,000	\$	3,025,000
Total Transition Costs - (OM&A)	\$	1,100,000	\$		\$		\$	\$		\$	1,100,000
Total Transition Costs - (Capital)	\$	1,250,000	\$	<u>ب</u>	\$		\$ 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 -	S	3.	\$	1,250,000
TOTAL TRANSITION COSTS	\$	2,350,000	\$	1	\$		\$	\$		\$	2,350,000
Total Annual Capital Savings	\$	*	\$		\$	19 0	\$ (2)	\$	263	\$	
Total One-Time Capital Savings	S	-	\$	99X	\$		\$ 	\$	7	\$	- 8
TOTAL CAPITAL SAVINGS	\$		\$	• •	\$		\$ •	\$		\$	

Undertaking No. JTC1.18

Reference: Page 166 of Transcripts Volume 1

Provide additional details for the four IT projects listed in Table 3 on page 4 in the response to Interrogatory B-BOMA-10d).

Table 3 – Breakdown of Implementation Capital Cost

Implementation Capital Cost	2016	2017	2018	2019-2025	Total
IT - CIS Consolidation	13.8	9.1	2.0	•	25.0
IT - ERP Consolidation	5.9	2.0	-		7.9
IT - Engineering Systems Consolidation	4.8	3.1	2.4	-	10.3
IT - Infrastructure Consolidation	7.5	0.5		•	8.0
Corporate Branding	1.4	2	- 1. E	-	1.4
Consolidation of other operational activities	0.4	0.4	-		0.8
TOTAL	33.7	15.2	4.4	-	53.3

Response:

- 1 The Applicants provide additional details for the four IT projects listed in Table 3 on page 4 in the
- 2 response to Interrogatory B-BOMA-10d) in Tables 1 to 4 below.

3 Table 1 - IT - CIS Consolidation

Project/ Initiative	Year 1	Year 2	Year 3	Total
CIS Consolidation - Foundation	1.3			1.3
CIS Consolidation - Horizon	6.5	3.4		9.9
CIS Consolidation - Enersource	.	2.4	2.0	4.4
CIS Consolidation - HOB	6.0	3.4		9.4
Totals	13.8	9.1	2.0	25.0

4

5 6

- The IT CIS Consolidation has been broken down into four distinct phases:
- CIS Consolidation Foundation [Phase 1] includes hardware, software, consulting services
- 8 and internal labour to create the backend infrastructure required to support a consolidated
- 9 Oracle CC&B CIS system based on the existing PowerStream Oracle CC&B system.

CIS Consolidation – Horizon [Phase 2] includes: data cleansing and migration, consulting
 services, and internal labour to migrate Horizon Utilities from Daffron CIS to the consolidated
 Oracle CC&B CIS.

CIS Consolidation – Enersource [Phase 3] includes: data cleansing and migration,
 consulting services, and internal labour to migrate Enersource from Oracle CC&B to the
 consolidated Oracle CC&B CIS.

CIS Consolidation – HOBNI [Phase 4] includes: data cleansing and migration, consulting
 services, and internal labour to migrate HOBNI from its legacy custom CIS to the consolidated
 Oracle CCSR CIS

18 Oracle CC&B CIS.

19 Table 2 - IT - ERP Consolidation

Project/ Initiative	Year 1	Year 2	Year 3	Total
ERP Consolidation - Foundation	0.3			0.3
ERP Consolidation - Horizon	2.8			2.8
ERP Consolidation - Enersource		2.0		2.0
ERP Consolidation - HOB	2.8			2.8
Totals	5.9	2.0		7.9

20

21 The IT - ERP Consolidation has been broken down into four distinct phases:

• ERP Consolidation - Foundation [Phase 1] includes: hardware, software, consulting services and internal labour to create the backend infrastructure required to support a consolidated JD Edwards ERP system based on the existing PowerStream JD Edwards system.

ERP Consolidation – Horizon [Phase 2] includes: data cleansing and migration, consulting
 services, and internal labour to migrate Horizon Utilities from IFS ERP to the consolidated JD
 Edwards ERP.

ERP Consolidation – Enersource [Phase 3] includes: data cleansing and migration,
 consulting services, and internal labour to migrate Enersource from JD Edwards to the
 consolidated JD Edwards ERP.

ERP Consolidation – HOBNI [Phase 4] includes: data cleansing and migration, consulting
 services, and internal labour to migrate HOBNI from its legacy custom ERP to the
 consolidated JD Edwards ERP.

Project/ Initiative	Year 1	Year 2	Year 3	Total
GIS-OMS Integration - Horizon	1.4			1.4
GIS-OMS Integration - Powerstream		2.2	2.2	4.4
GIS-OMS - HOBNI	1.4			1.4
SCADA Integration	1.8	0.9		2.7
OSI Soft (SCADA Data Integration)	0.1	200	0.2	0.2
Cascade CMMS	0.1			0.1
Totals	4.8	3.1	2.4	10.3

35 Table 3 - IT -- Engineering Systems

36

GIS-OMS Integration – Horizon includes data cleansing and migration, hardware, software,
 consulting services and internal labour to support the consolidation of Horizon Utilities'
 Intergraph GIS-OMS system with the Enersource Intergraph GIS-OMS systems.

GIS-OMS Integration – PowerStream includes data cleansing and migration, hardware,
 software, consulting services and internal labour to support consolidation of PowerStream's
 ESRI GIS-OMS system with the Enersource Intergraph GIS-OMS systems.

- GIS-OMS Integration HOBNI includes data cleansing and migration, hardware, software,
 consulting services and internal labour to support consolidation of HOBNI's Intergraph GIS
 and Survalent OMS systems with the Enersource Intergraph GIS-OMS systems.
- SCADA Integration includes data cleansing and migration, hardware, software, consulting
 services and internal labour to support consolidation of the Survalent SCADA systems of
 Horizon Utilities and HOBNI, and the PowerStream Schneider SCADA system with the
 Enersource Survalent system which will be the LDC Co standard.

OSI Soft Data Integration project includes data mapping, hardware, software, consulting
 services and internal labour to integrate data from all SCADA systems into the Operational
 Data Store used by PowerStream for analytics to support system operation, planning and
 maintenance.

• **Cascade CMMS** project includes data mapping, hardware, software, consulting services and internal labour to extend the Computerized Maintenance Management System used by PowerStream for substation asset management to the Horizon Utilities, Enersource, and HOBNI service areas.

Project/ Initiative	Year 1	Year 2	Year 3	Total
Email Consolidation	0.2			0.2
Telecommunications	0.3	9 1		0.3
Phone System Consolidation	0.8			0.8
IT Security Consolidation	1.2			1.2
Data Centre Consolidation	3.7			3.7
IT Service Desk Consolidation	0.0			0.0
Data Backup & Archiving	0.7			0.7
Misc. System Standardizations	0.5	0.5		1.0
Totals	7.5	0.5	-	8.0

58 Table 4 - IT – Infrastructure Consolidation

59

The objectives of these projects are to implement a common, consolidated IT infrastructure to support the new company in Years 1 and 2. This consolidation will drive IT efficiencies and synergies. This IT infrastructure consolidation includes utilization of existing assets where possible. Costs include: hardware, software, consulting services and internal labour to support the infrastructure consolidation.

now I guess is what I am getting at. In other words, could 1 you have a position that is now vacant, that is included in 2 that number you gave me? Or does that entire number that 3 you filed deal with essentially redundant people that are 4 now in positions that would not be down the road? 5 The number of redundancies or FTE MS. SCHACHT: 6 reductions would include positions that are filled and some 7 positions that are currently vacant. 8 MR. BRETT: Okay. And that's a matter of essentially 9 not filling a vacant position then? 10 MS. SCHACHT: In some cases, yes. 11 12 MR. BRETT: And roughly, could you tell me what percentage is that, roughly? I am not looking for a 13 number, but in percentage terms. 14 [Witness panel confers] 15 MS. SCHACHT: If I can refer you to AMPCO 6(b), that 16 has a table of vacancies. 17 MR. BRETT: Okay, AMPCO -- what is it? 18 19 MS. SCHACHT: 6 b). MR. BRETT: Okay. All right. I can look that up. 20 21 Thank you. Now, if we go back to the issue of -- I really 22 23 shouldn't ask this question, but I think as a matter of fairness, I will. Going back to that issue that we 24 25 discussed on centralization and non-centralization, if you recall that --26 MR. PASTORIC: Mr. Brett, I believe you are talking 27 28 about the business plan, page 70 of the operational plan

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1 where the words --

2 MR. BRETT: Yes, page 70 and 73. Page 70, yes; do you 3 have any further comment on that?

MR. PASTORIC: Yes. Panel 1 was correct. It is future focus here where we talk about scale and lower costs. But it also is -- at the time of August 27th, we had looked at both our call centre and our control room, and when we're looking at centralization of those from four to two, there are synergies that will be got.

10 So it is correct for the present business case that 11 some synergies have been got by centralization, and we're 12 looking at it from a future point of view, that once we 13 analyze each of the functions, we hope to have other 14 savings.

MR. BRETT: Okay. So you are saying that you have actually made an analysis and effectively put together -or drawn some conclusions about those two functions, that when you centralize, they will have savings?

MR. PASTORIC: In our business case, we do discuss bowing the control room moving from four to two, where the Mississauga control room would be merged with the Hamilton control room.

23 MR. BRETT: Right.

24 MR. PASTORIC: And the Brampton one will be merged 25 with the one in Vaughan.

MR. BRETT: Is it the control room that you are speaking about here? There is not a second one; that's the control rooms?

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1 MR. PASTORIC: Control rooms, we'll have two control 2 rooms, one in Hamilton and one in Vaughan.

3 MR. BRETT: When would that happen?

MR. PASTORIC: That could be anywhere between two and three years out, once the GIS and the OMS systems are in place. So we will see synergies coming out of that.

7 MR. BRETT: Okay. Now I want to move on to -- I want 8 to move on to BOMA 8, and this was the reliability 9 question, I believe.

Make sure that -- no, it's not 8. I'm sorry. Let me just -- there was a question I started to ask the other panel on reliability, and they mentioned that it would be better to ask you. So let me just find this here. Hang on.

Okay, it is BOMA 6. Sorry about that. If you turn up 15 BOMA 6, I had asked -- well, I asked a number of parts to 16 But what I wanted to focus on was whether or not -- I 17 it. want to make sure I am correct here. I am concluding, from 18 the answer to 6, that the applicant is not making any 19 commitment that is, let's say, quantifiable, firm to 20 increase reliability in the system as a result of the 21 22 merger.

You have given me a number of answers about, you know, answering about your licence and obligations under the licence and the distribution system code and all of that, an all of the RRFE, all of which is there.

I see all of that, but I just want to make sure I understand. You are not saying that you are going to

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Government and OEB focus on phantom scale savings.

ur analysis of the OEB's recently released historical data of LDC OM&A not only contradicts the government's claim of amalgamation cost savings,⁹ it finds pervasive cost increases among merged utilities. This finding is also supported by our analysis of utilities' cost filings to the regulator in support of their 2006 rates. While in a small minority of cases there have been reductions in costs to the amalgamated portions with the very highest pre-merger costs, the vast majority of portions with the lowest pre-merger costs have had their average cost increased. Finally, as the most perverse of incentives, it has been noted by many in the industry that an ultimate reason for rationalization for many of the smallest municipal utilities is not any economic welfare gain, but the unwieldy and overbearing regulatory burden being imposed on the utilities by the Government and the Regulator: they must divest because the cost of complying with regulation and market rules is too great, even if it results in a less efficient system! Unfortunately, many of these burdens and costs had been imposed to support the failed retail market opening.

In this article, Section II reviews what research and regulatory precedents were available to the Ontario Government to help develop its policy. Our initial utility cost and productivity research is reviewed in Section III. Section IV examines the source and extent of distribution ineffiencies in Ontario. Section V examines recent findings on scale and scope economies from a translog cost function estimated on a panel data set of Ontario distributors. The recent performance of amalgamated LDCs is analyzed with accounting data in Section VI. Conclusions are discussed in the last section.

> One could conclude that ownership form per se has little impact on efficiency for distribution electric utilities.

II. Prior Research

What could the Government and its advisors have known regarding distribution efficiency from academic research available at or before the Ontario restructuring?

A. Efficiency and form of ownership

Numerous studies have addressed the relative efficiency of publicly owned versus privately owned utilities. These studies generally find no statistically significant difference in the operations of distribution electric utilities based on ownership form. Prior studies also find that changes in productivity for distribution electric utilities are also unrelated to ownership form. And, at least two studies conclude that costs for their samples of municipal utilities were less then for their sample of private utilities.

Based on this sample of studies, one could conclude that, in general, ownership form *per se* has little impact on efficiency for distribution electric utilities or even that public ownership may be more efficient. In fact, that is the conclusion drawn by Petersen in his discussion on the regulation of businesses.¹⁰

At least for electric utilities, the stereotype of inefficient public ownership is not supported by the evidence. Municipal utilities compare favorably with investorowned firms. Their prices are generally lower, and they may be more efficient.

□ - 同線 割凶に。

B. Efficiency and scale

Furthermore, research does not generally support the notion of substantial unrealized economies beyond a relatively modest size in distribution. With respect to the potential for substantial merger/ amalgamation savings, prior research on economies of scale in electric distribution is indeterminate with respect to existence or magnitude. While some researchers have found economies of scale, others have found diseconomies beyond moderate size, or for limited scope for economies of scale. O ne study had looked at the distribution sector in Ontario in the mid-1990s and was later published (Yatchew, 2000). Unfortunately, this study has serious specification and data limitations, especially with respect to capital. That being said the author finds minimum efficient scale occurs at about 20,000 customers.

No doubt, the problem is complex. For example, researchers have generally found returns from energy density (consumption per customer), sometimes from scope, and sometimes from customer density, but even the latter appears to have decreasing returns beyond some point. Given the lower costs for smaller Ontario utilities found in the OEB Staff Report (Cronin et al., 1999), one would presumably want to have solid research findings upon which to base a policy with contrary assumptions (i.e., that substantial unrealized economies of scale exist over a wide range of production).

C. Norway's water resources and energy directorate

Notwithstanding this research and other sources, the Government and Regulator have forged ahead with this program. Indeed, Ontario may well benefit from examining the practices in other jurisdictions. One jurisdiction of great interest is Norway. Restructuring began there in 1990. Norway had about 235 electricity utilities at the time of restructuring. Interestingly, the 1990 Energy Act identified mergers as a possible goal.

However, research undertaken for the regulator (the Norwegian Water Resources and Energy Directorate, NVE) indicated:

NVE neither has the power nor the desire to dictate mergers. The main

Ontario may well benefit from examining the practices in other jurisdictions particularly Norway.

reason for this is that it is very difficult for NVE to know precisely where there are unrealized economies of scale. As far as NVE is aware, there are as yet no scientific studies of unrealized efficiency gains related to economies of scale within the Norwegian electricity transmission and distribution sector. Even if NVE had the power to dictate mergers, this would probably not lead to the most efficient solutions.¹¹

NVE adopted a light-handed, market-driven approach for its MEUs. Under the first generation PBR, NVE incented utilities to undertake appropriate mergers by allowing any merger savings above the allowed return to be retained by the utilities. As noted by NVE staff, "Efficiency gains will result in increased profit – in the long run, this will also result in reduced prices."

III. Initial Cost and Productivity Research

As part of the initial research to support the development of a PBR plan for electricity distributors for the OEB, the cost structure and productivity performance of 48 municipal electric utilities (MEUs, now referred to as LDCs after corporatization) were examined over the 1988–1997 interval. The study involved the collection and verification of a dataset that included comprehensive coverage of value-based capital input quantities and prices spanning more than four decades, arguably one of the most comprehensive studies of its type, certainly for Canada.

The study found, not surprisingly, that on average the cost structure of Ontario electricity distributors was heavily weighted towards capital, making up upwards 50 percent of utility costs. I²R losses make up another 10-12 percent of utility costs, with O&M costs (labor and other purchased materials and services) generally accounting for less than 40 percent of the cost structure. However, the study also found that, while there is significant cost variation among all size classes of distribution utilities in the Province, the largest distribution utilities have historically had the highest cost