



Efficiency Nova Scotia Corporation Cost Allocation Methodology Report

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1 INTRODUCTION

Efficiency Nova Scotia Corporation (“ENSC”), which was created by legislation that was proclaimed January 22, 2010, is subject to regulation by the Nova Scotia Utility and Review Board (“NSUARB” or “Board”). It filed its first Electricity Efficiency and Conservation Plan, known officially as the Demand Side Management Plan for 2012 (“2012 DSM Plan”) on February 28, 2011. The Board’s decision in this matter was rendered on June 30, 2011 (Decision NSUARB-E-ENSC-R-10, 2011 NSUARB 99) and was accompanied by Order NSUARB-E-ENSC-R-10 which was issued the same day.

One of the issues addressed in the 2012 DSM Plan was cost allocation. At the time the evidence for the 2012 DSM Plan was prepared, ENSC was responsible only for the electricity DSM programs that were previously administered by Nova Scotia Power Inc. (“NSPI”).

Given the expansion of ENSC’s mandate to include programs funded by the Province of Nova Scotia, it is clear that ENSC will require a cost allocation methodology that will address the allocation of costs between NSPI ratepayer-funded programs and taxpayer-funded programs. In anticipation of this change, the Board Order included the following direction to ENSC:

4) With regard to ENSC's mandate being expanded to manage non-electricity efficiency programs, the Board orders ENSC to develop and file, no later than September 30, 2011, its policy to track time and costs for electric and other fuel mandates.

ENSC has retained Elenchus to assist it in developing the cost allocation model (“CAM”) that will be appropriate to use to fully allocate its costs to taxpayer- and ratepayer-funded programs. Integral to this work has been the development of an appropriate “policy to track time and costs for electric and other fuel mandates.”

This report explains the approach that is being embedded in ENSC’s cost allocation model for fully allocating costs to the taxpayer and ratepayer-funded programs.

2 ENSC'S NEW SYSTEM OF ACCOUNTS

ENSC is in the process of implementing a new system of accounts. In this system of accounts each transaction will be coded in four ways:

1. **Account code:** Each entry is assigned an account code. The accounts are standard accounts that would be found in many organizations, such as wages, rent, software and so on.
2. **Fund:** Each entry is also assigned to one of four funds (General, Capital, Electricity Demand Side Management (EDSM), or Province of Nova Scotia (PNS)). Any transaction that is not directly related to a single specific program is coded as General indicating that it requires a further breakdown in order to allocate it among two or more ENSC programs. The General coding is used not only when an expense relates to both taxpayer- and ratepayer-funded programs but also when it relates to more than one taxpayer- or ratepayer-funded program.
3. **Department:** Each entry is coded to one of 12 Departments. These Departments include Direct Program Costs, Program Support, nine administrative departments (Sales, Finance & Admin, Operations, etc.) and Start-up.
4. **Program:** Finally, each entry is coded to one of the existing 26 programs or to Admin/General. Admin/General is used for operational costs that do not relate specifically to ENSC's programs. The 26 programs include sub-categorization of programs such as Solar (Provincial-Residential) and Solar (Provincial-Commercial) which are treated as two programs for purposes of the accounting system. As a result, allocating ENSC's costs to these programs produces the appropriate fully allocated ratepayer- and taxpayer-funded program costs.

3 COST ALLOCATION METHODOLOGY

ENSC's cost allocation model relies on standard fully allocated costing concepts that are generally accepted by Canadian regulators for rate-setting purposes. In particular, ENSC's fully allocated costing methodology allocates 100% of costs to the "customer classes" based on cost causality principles. The concept of customer classes differs somewhat from most regulated utilities (such as electricity and natural gas distributors) since ENSC has two tiers of "customer classes":

- The first tier of "customer classes" is the division between taxpayers and ratepayers, where the taxpayer "class" is defined in terms of programs that are funded by taxpayers through government contracts and the ratepayer "class" is defined in terms of programs that are funded by NSPI ratepayers.
- The second tier of customer classes relates only to ratepayer-funded programs. Costs that are allocated to (and recovered from) NSPI ratepayers must also be allocated by the model to NSPI ratepayer classes.

The Board's direction in its June 30, 2011 Order clearly relates only to the first tier; that is, the allocation of costs to taxpayer- and ratepayer-funded programs. While this report focuses on the first-tier methodology, it should be noted that once costs are allocated to programs, most costs will be directly allocated to NSPI rate classes.

In order to allocate cost to the electricity and other fuel mandates within the ENSC CAM, ENSC's accounts have been divided into several categories that require different allocation methods:

1. **Direct Program Cost Accounts:** A few accounts can be directly allocated to a single ENSC program. This occurs in cases where the definition of the account is such that all expense (or revenue offsets) must be allocated to a single program. For example, the Small Business Energy Solutions (SBES) Recovery is allocated directly to the SBES program.

2. **Joint Direct Program Cost Accounts:** Some accounts contain costs that can be directly allocated to programs but it is necessary to allocate the costs in the account to two or more programs. While many transactions in these accounts can be directly allocated to a program, others are joint costs (e.g., certain advertising and promotional expenses) that must be divided between programs. The appropriate allocation of these costs to specific programs is determined on an invoice-by-invoice basis by ENSC staff.¹
3. **Common Program Cost Accounts:** Two accounts (regulatory costs and bad debt expenses) contain common costs that are “caused” by the ratepayer-funded programs in common. That is, these costs cannot be said to be caused by specific ratepayer-funded programs, but are caused by all of these programs together. Hence, while the costs can be directly allocated to ratepayer-funded programs and recovered exclusively from NSPI ratepayers, they are allocated to individual electricity programs on a proportional basis.
4. **Administrative and Operational Overhead Accounts:** Several accounts contain expenses that relate to ENSC’s office space or business operations and are not directly “caused” by ENSC’s programs. These are typically defined as “common costs” in cost allocation models that should be allocated across classes on an appropriate proportional basis. Examples include rent, insurance, and janitorial service, as well as expenses related to ENSC’s Board of Directors. These common costs are allocated to the “electric and other fuel mandates” in the ENSC CAM by allocating them to all of ENSC’s programs on a pro rata basis. Costs allocated to ratepayer-funded programs are effectively allocated to the electricity mandate while costs allocated to the taxpayer-funded programs are effectively allocated to the other fuel mandate. Two allocation methods are used:

¹ In general, the necessary information to correctly allocate the costs is provided on the invoices received by ENSC. Where a supplier does not currently provide the necessary detail of costs by program, ENSC will require more detailed information to be provided on the invoices in the future. ENSC is striving to eliminate the need to rely on staff judgement to allocate joint costs across programs wherever it is practical to do so.

- 4.1 **Common Costs (Staff/Space):** Costs that are “caused” by the number of personnel in the office (or the total office space, which in turn is “caused” by the number of staff) are allocated to programs on the basis of headcount (i.e., full-time equivalent, or FTE, associated with each program). Accounts allocated in this way include rent, insurance and IT equipment.
 - 4.2 **Common Costs (Operations):** Other common costs in the administrative and Operational Overhead category are not related to the number of staff or space but by the overall business activity. Examples include ENSC Board of Directors’ fees and bank charges. These expenses are allocated to programs (and hence to the electricity and other fuel mandates) on the basis of the total directly allocated costs of each program. In effect, these costs are treated as a fixed percentage adder on the direct costs of the programs.
5. **General Program Administration Cost Accounts:** A number of accounts contain both administrative expenses that are “caused by”, and can be directly allocated to, programs - either individually or jointly - and administrative expenses that are “caused by” the general administrative operations. Examples of this category of costs include office supplies, travel and staff training. Costs in these accounts are allocated using two methods:
- 5.1 **Program expenses:** Costs that are associated with ENSC’s programs, such as office supplies used by program staff, are allocated using the methodology described above for Joint Direct Program Cost Accounts.
 - 5.2 **Administrative expenses:** Costs that are associated with ENSC’s general administrative operations are common administrative costs. These costs are transferred to the Common Costs (Operations) category included in Administrative and Operational Overhead Accounts and are, therefore, allocated in the same way as those costs (i.e., allocated to programs and, hence, to the electricity and other fuel mandates on the basis of the total directly allocated costs of each program).

6. Salaries and Benefits Accounts: The various accounts that make up total ENSC salaries and benefits contain both expenses that are caused directly by the programs (e.g., salaries of program managers) and expenses that relate to ENSC's office administration (e.g., executive, accounting and support staff salaries). These accounts are divided into three groupings that are treated differently in the CAM:

6.1 Executive Salaries and Benefits Accounts: The various accounts associated with executive salaries and benefits essentially are common costs across all of ENSC's programs. They are transferred to the Common Costs (Operations) category included in Administrative and Operational Overhead Accounts and are therefore allocated in the same way as those costs (i.e., allocated to programs and hence to the electricity and other fuel mandates on the basis of the total directly allocated costs of each program).²

6.2 Staff Salaries and Benefits Accounts: The various accounts associated with staff salaries and benefits include expenses related to program staff and general administrative staff. Non-management Staff Salaries and Benefits are, therefore, divided into two "expense pools" - project staff and administrative staff - so that the staff salaries can be determined for each pool.

6.2.1 Expenses for the project staff pool are allocated to projects based on headcount (FTE) of staff resources assigned to each project.

² Explicit time tracking was considered as an option for allocating the time of executives to programs. This option was rejected for two reasons. First, a significant proportion of executive time is spent on corporate matters and would have to be allocated across programs as a common cost in any case. In addition, much of the time spent by executives on matters related to ENSC's programs is not attributable to a single program. Rather, it is spent addressing issues that relate to multiple programs, making it impractical to charge specific blocks of time to specific programs. Second, for cost allocation purposes, it is appropriate to allocate executive time to programs in a manner that reflects the "typical" demands made on executive time. Detailed tracking would result in allocations that would be unstable because they would reflect the specific program issues that arise from time-to-time. Similar issues make explicit time tracking less appropriate than the proposed method for other non-program staff.

6.2.2 Expenses for the administrative pool are transferred to Administrative and Operational Expense. This expense pool is transferred to the Common Costs (Operations) category included in Administrative and Operational Overhead Accounts and are, therefore, allocated in the same way as those costs (i.e., allocated to programs and hence to the electricity and other fuel mandates on the basis of the total directly allocated costs of each program).

4 CONCLUSION

The methodology used to allocate ENSC's total "costs for electric and other fuel mandates" is consistent with the standard approach to the fully allocated costing models that are used for rate setting purposes by regulated electricity and natural gas utilities across Canada. The essential features of this approach are:

- Costs that are directly caused by a particular program are directly allocated to that program;
- Costs that are jointly caused by two or more programs are allocated to those programs with the relative allocations being determined on a case-by-case basis (generally these costs are directly allocated to either electricity or other fuel programs and hence are effectively directly allocated to the two mandates);
- Common program costs (regulatory costs and bad debt expenses) are allocated to the relevant programs as an adder on directly allocated costs (all of these costs are currently allocated entirely to programs included in the electricity mandate and recovered from NSPI ratepayers);
- Administrative costs that are "caused" by the program headcount or office space required by ENSC are allocated to programs on the basis of the staff resources (FTE) assigned to each program; and
- Administrative costs that are independent of staffing levels are proportionately allocated as an adder on the costs that are directly allocated to programs.

The total costs allocated to the programs included in ENSC's electricity mandate are recovered from NSPI customers through the rate riders that are approved by the NSUARB and are subject to the true-up mechanism to ensure that the total amounts recovered from each customer class are consistent with costs allocated to each class. The total costs allocated to the programs included in ENSC's other fuel mandate are recovered through the payments made by government to ENSC pursuant to the contracts established for this mandate.

APPENDIX: ACCOUNTS PAYABLE ALLOCATION PROCESS

INTRODUCTION

The NSUARB has requested an accounting procedures document to accompany the Cost Allocation Methodology (CAM) Report filed by Efficiency Nova Scotia Corporation (ENSC) on September 30, 2011, that will provide greater procedural direction and control and further clarify how program costs are properly allocated within ENSC's accounting system to programs funded by electricity ratepayers and taxpayers.

This Appendix provides further procedural direction on how ENSC costs are allocated to funds, departments and programs, and includes 3 examples with implementation directives. Please note: the Admin/General costs are not allocated in the manner described below; these costs are allocated to the General Fund, corporate departments (e.g., CEO, Finance & Admin, Human Resources), Admin/General program, and allocated to the various programs through the CAM.

(Please refer to the following resources as this Appendix is reviewed: (a) definitions for "Fund", "Department", and "Program" are included in the ENSC CAM Report on page 2; (b) Schedule 1 of this Appendix provides the accounting codes for all funds, departments and programs (some will be referenced in examples throughout this document); and (c) Schedule 2 is a flow chart which simplifies the narration below.)

ENSC COST ALLOCATION PROCESS

1. Invoice is received by ENSC
All invoices are forwarded to the Accounts Payable Department for review and coding (this is done to ensure that costs are objectively and consistently allocated).
2. Invoice coding
 - a. The Accounts Payable Clerk reviews the invoice noting subject line, line item description and supporting documentation.
 - i. If these items clearly identify an ENSC program to which the charges relate then the costs are coded to the corresponding fund/department/program.
 - Please refer to Example # 1 (at the end of this Appendix).
 - ii. If these items identify an ENSC program, but not all line items can be directly allocated based on the support received, the portion that can be directly

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allocated to a fund/program will be allocated. The remaining costs are allocated to the same programs at a percentage determined on a case-by-case basis; they are also coded to the General Fund for future analysis and allocation using the CAM.

- Please refer to Example # 2 (at the end of this Appendix).
- iii. If these items identify an ENSC program, but support is not received to directly allocate the line items, the following steps are taken:
- The Accounts Payable Clerk will contact the vendor and request further documentation to support a direct allocation to a fund/program. If the vendor is able to provide this information, then the Accounts Payable Clerk follows one of the processes indicated above.
 - If no further information is available from the vendor, the Accounts Payable Clerk meets with the ENSC program manager responsible for the expenditure to determine an allocation between taxpayer and ratepayer. Once a criterion is set, this is applied on a consistent basis to similar invoices received in the future. Note however, that the coding of these invoices is done in the General Fund, so that they can be revisited during the application of the CAM. They are coded in this manner (i.e., to a program in the General Fund) for internal reporting purposes and to separate unallocated program costs from Admin/General costs for ease of applying the model.
 - Please refer to Example #3 (at the end of this Appendix).
- iv. If these items do not clearly or only partially identify an ENSC program, the Accounts Payable Clerk will do one of the following:
- a. The vendor is contacted and provides further documentation; the Accounts Payable Clerk follows number (i) or (ii) above.
 - b. The vendor is contacted and no documentation is provided, but an ENSC contact name is given; the Accounts Payable Clerk follows number (iii) above.

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3. Approval of invoice

- a. Once the Accounts Payable Clerk has coded the invoice received, it is then forwarded to the appropriate ENSC Program Manager and Senior Program Manager for approval of coding and payment.

CONCLUSION

The cost allocation and procedural direction outlined above creates an accounting methodology and procedure designed to satisfy the regulatory requirement to ensure that costs are properly and fairly allocated between programs paid for by electricity ratepayers and taxpayers. It breaks out all directly allocated costs to the two relevant funds (EDSM and PNS) using objective measures provided by vendors. All other costs which are not objectively allocable are put into the General Fund to be allocated through the use of the cost allocation model (CAM) for reporting to the NSUARB.

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EXAMPLE # 1 – DIRECT BILLING

An invoice is received by the Accounts Payable Clerk from Vendor “A” in which the subject line reads: “ENS-0062-R Retail Product Markdown Program Phase II August 16 – 31, 2011”. The subject line specifically identifies ENSC’s program Efficient Products (EP) Retail Markdown, which is defined as an EDSM – Residential program. Therefore, the Accounts Payable Clerk allocates the costs on this invoice to Fund 30 (EDSM), Department 10 (Direct Costs), and Program 1008 (EP Retail Markdown).

EXAMPLE # 2 – COMBINATION DIRECT AND INDIRECT BILLING

An invoice is received by the Accounts Payable Clerk from Vendor “B” in which the “Ship To” line reads: Efficiency Nova Scotia, August 2011 Energuide Billing. Currently ENSC has two operational programs under the Energuide Brand – Existing Houses (EDSM & PNS) and New Houses/Performance Plus (EDSM & PNS); However, ENSC’s vendors have been requested to indicate Existing Houses as Energuide and New Houses/Performance Plus as Energuide New Houses. Therefore, this invoice relates to the programs 1000 – Existing Houses (PNS) and 1006 – Existing Houses (EDSM).

The invoice from Vendor “B” includes Eco Energy Evaluations and travel. Each type of evaluation and travel is listed as a separate line item on the invoice with a corresponding total cost (line item cost).

Line item – Eco Energy Evaluations

The Eco Energy Evaluations are supported by schedules indicating for each Evaluation Number whether the work was performed at a home designated electric (ratepayer-funded) or non-electric (taxpayer-funded). The Accounts Payable Clerk takes the schedule provided for each evaluation type, and breaks down the line item cost for each type of evaluation in one of two ways:

1. On direct basis, defined as:
 - a. number of electric evaluations multiplied by per evaluation cost; and
 - b. number of non-electric evaluations multiplied by per evaluation cost.
2. On a proportional basis (if the per audit cost is not clearly defined on the invoice), defined as:
 - a. number of electric evaluations divided by total number of evaluations multiplied by the line item cost; and
 - b. number of non-electric evaluations divided by total number of evaluations multiplied by the line item cost.

These calculated direct costs are then allocated to the associated fund (30 - EDSM or 40 - PNS), department (10 – Direct Costs) and program (1000 & 1006 – Existing Houses).

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Line item - Travel

Travel is supported by a schedule breaking out the cost of travel per day, referencing the completed evaluation numbers. These costs cannot be directly allocated due to lack of information provided by the vendor indicating how many kilometres should be allocated to each evaluation number (ratepayer vs. taxpayer); however, compared to the total Eco Evaluation cost, this amount is nominal (\$240 vs. \$12,690), so a proportional basis is used as follows:

- Line # 1 – August 22, 2011 141Km at \$0.39/km. Total line cost = \$54.99. On this day, the evaluator visited four sites, three of which were indicated on the Eco Evaluation schedule as non-electric and one as electric. Therefore, the Accounts Payable clerk allocates 75% of the line item costs (or \$41.24) to Fund 10 – General, Department 10 – Direct Costs, 1000 – Existing Houses (PNS) and the other 25% of the line item costs (or \$13.75) to Fund 10 – General, Department 10 – Direct Costs, 1006 – Existing Houses (EDSM). These costs will be allocated through the CAM as outlined in the CAM Report.

In conclusion, the final coding of the above invoice allocated 98% of the costs to the EDSM fund as direct costs, and 2% to the General Fund as indirect costs. These indirect costs will be pooled in the General Fund with other indirect costs and allocated to the EDSM and PNS funds through the use of the cost allocation model on a regular basis.

EXAMPLE # 3 – IDENTIFIED AND INDIRECT

An invoice is received by the Accounts Payable Clerk from Vendor “C” in which the subject line reads: “ENS-0039 BER Brochures”. The subject line specifically identifies an ENSC program – Business Energy Rebates – however, ENSC’s program listing has two sub-categories – New Construction (EDSM) and Retrofit (EDSM). Therefore, the Accounts Payable Clerk cannot directly allocate the costs on this invoice.

The Accounts Payable Clerk would consider contacting the vendor to get a further breakdown, but in this example, the costs are for brochures and a breakdown would not be feasible. Therefore, the Accounts Payable Clerk would opt to discuss the allocation with the appropriate ENSC Program Manager.

Through the discussion on this invoice, it was determined that BER brochures in all instances should be allocated 20% to New Construction and 80% to Retrofit. The Program Manager determined through his/her analysis of internal financial reporting and budgeting that this is the appropriate allocation rate.

Therefore, the Accounts Payable Clerk codes the invoice to the General Fund and the programs identified, at the rate identified. The allocation to General Fund is done to identify costs which need to be allocated through the CAM. The allocation to the programs is done for internal reporting purposes

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and to separate program costs from corporate costs as these are allocated through different categories in the CAM.

Note:

The above application of cost allocation is also applied to invoices for which the program identified is sub-categorized between the ratepayer and taxpayer. The amounts are still recorded to the General Fund for further scrutiny during the application of the cost allocation model.

The above application of cost allocation is also applied to invoices related to groups of programs (i.e., residential or commercial). The amounts are still recorded to the General Fund for further scrutiny during the application of the cost allocation model.

SCHEDULE 1 - ACCOUNTING CODES

FUND		DEPARTMENT		PROGRAM	
10	General Fund	10	Direct Program Costs	1000	Existing Houses (Prov-Res)
20	Capital Fund	20	Program Support	1001	Performance Plus (Prov-Res)
30	EDSM Fund	21	Sales	1002	Solar (Prov-Res)
40	PNS Fund	31	Finance & Admin	1003	REAP (Prov-Res)
		32	CEO	1004	Solar (Prov-Com)
		33	Board of Directors	1005	Low Income (DSM-Res)
		34	HR	1006	Existing Houses (DSM-Res)
		35	Analytics	1007	New Houses (DSM-Res)
		36	Communications & Marketing	1008	EP Retail Markdown (DSM-Res)
		37	Operations	1009	EP Appliance Replacement MR (DSM-Res)
		38	Call Centre	1010	EP Appliance Retirement SF (DSM-Res)
		40	Start-up	1011	EP Multifiresidential Renter Pilot (DSM-Res)
				1012	EP Low Income Pilot (DSM-Res)
				1013	Fuel Substitution (DSM-Res)
				1014	SBES (DSM-CI)
				1015	EP Direct Install (DSM-CI)
				1016	Custom Retrofit (DSM-CI)
				1017	SLC (DSM-CI)
				1018	Custom New Construction (DSM-CI)
				1019	Business Energy Rebate (BER) New Construction (DSM-CI)
				1020	Business Energy Rebate Retrofit (DSM-CI)
				1021	Education & Outreach (DSM-Multi)
				1022	Advanced Houses Pilot (DSM-Multi)
				1023	MURB (Prov-Com)
				1024	RFANS (Prov-Com)
				1025	MURB (DSM - COM)
				9999	Admin/General

SCHEDULE 2 – FLOW CHART OF ACCOUNTS PAYABLE
ALLOCATION PROCESS

