

**Topic:** Amount of Adjusted Contribution

**Reference:** Projects Table, October 14, 2009

**Preamble:** It is generally expected that the Adjusted Contribution (Column C) amount for an interconnection project will be lower than the Customer Related Costs (Column A) for a project.

**Request:**

Please explain why the Adjusted Contribution exceeds the Customer Related Costs for Project Numbers 712 and 801.

**Response:**

The customer-related costs included in column A of the Projects Table include only construction costs for each project and do not include O&M charges. The adjusted contribution in column C of the table includes both construction costs not covered by investment and O&M charges. Where little or no investment is available for a project, the adjusted contribution may exceed the customer-related costs due to the addition of the O&M charge.

For Project Numbers 712 and 801, each included facilities in excess of standard to which an O&M charge was added. As well, little or no investment was available for each project. As a result, the adjusted contribution exceeded the customer-related costs as for each project summarized in the following table.

Project No.	Customer-Related Costs			Less Investment on Contract MW	O&M Charge on Facilities in Excess	Total Customer Contribution
	Standard Facilities	Facilities in Excess	Total Facilities			
712	\$155,000	\$4,433,000	\$4,588,000	(\$155,000)	\$531,960	\$4,964,960
801	\$4,750,000	\$100,000	\$4,850,000	(\$0) <sup>Note</sup>	\$12,000	\$4,862,000

Note: No additional MW of contract capacity was contracted for Project Number 801.

The AESO notes the information originally presented for Project Number 712 included a calculation error, which has been corrected in the table above. As well, need identification documents for these projects have not yet been filed with the Commission, and customer contributions are subject to change based on revised project cost estimates, final costs after project construction is complete, and changes to contract capacities.

The AESO has also corrected the information for Project Number 712 in the updated Projects Table attached to this information response, which includes additional information on standard facility costs, costs of facilities in excess of standard, and permit and licence date or status for each project.

**AESO Responses to Information Requests  
Projects Impacted by Decision 2009-105**

Project Number	Project Name	A Customer-Related Costs	B AESO Standard Facilities	C Facilities in Excess of Standard	D Reduction in O&M Charge	E Adjusted Contribution	F Date of Permit and Licence
<b>Refunds of Customer Contributions Previously Paid by Customers</b>							
526	FortisAlberta Keystone Lakesend Pump Station	\$14,435,000	\$14,435,000	-	\$1,732,200	\$7,087,600	5 Aug 2009
527	ATCO Electric Keystone Monitor Pump Station	8,501,000	6,677,000	1,824,000	801,240	2,042,880	7 May 2009
528	ATCO Electric Keystone Oyen Pump Station	6,182,000	6,182,000	-	740,840	-	7 May 2009
529	ATCO Electric Keystone Bindloss Pump Station	9,367,000	9,367,000	-	1,124,040	2,704,000	7 May 2009
585	FortisAlberta Broadmoor 420S 138/25 kV Substation	10,563,000	10,563,000	-	1,267,560	2,875,200	17 Nov 2009
595	StatoilHydro Leismer Facility	28,272,880	28,272,880	-	3,392,746	22,452,730	4 Mar 2009
655	FortisAlberta Devon 14S Conductor Upgrade	441,000	351,000	90,000	42,120	58,680	21 Aug 2008
658	Fort Assiniboine Transformer Addition	5,931,000	5,871,000	60,000	695,163	1,122,000	9 Oct 2008
702	FortisAlberta Hardisty Transformer Addition	4,315,376	4,315,376	-	995,000	-	17 Jun 2009
720	FortisAlberta Edgerton Transformer Upgrade	2,518,200	2,387,000	131,200	286,440	913,674	19 May 2009
721	Peace Butte 404S 25 kV Supply	6,484,414	6,290,414	194,000	754,849	4,622,722	22 Oct 2008
726	ATCO Electric Michichi Creek Breaker Addition	998,000	998,000	-	119,760	364,977	19 May 2009
730	ENMAX Crossfield Energy Centre Interconnection	8,260,000	8,260,000	-	6,564	8,230,267	17 Mar 2009
733	Blackmud 155S Transformer Addition	5,738,000	5,663,000	75,000	679,560	3,807,600	21 Aug 2009
804	NW Cardiff 191S Capacity Upgrade	7,622,500	2,602,000	5,014,500	312,240	6,842,640	26 Jun 2009
823	ENMAX No. 26 Substation Upgrades	8,011,966	3,557,422	4,454,544	426,890	5,022,511	25 Jun 2009
<b>Subtotals (16 Projects)</b>		<b>\$127,641,336</b>	<b>\$115,792,092</b>	<b>\$11,843,244</b>	<b>\$13,377,212</b>	<b>\$68,147,481</b>	

**AESO Responses to Information Requests  
 Projects Impacted by Decision 2009-105**

Project Number	Project Name	A Customer-Related Costs	B AESO Standard Facilities	C Facilities in Excess of Standard	D Reduction in O&M Charge	E Adjusted Contribution	F Date of Permit and Licence
<b>Reductions in Customer Contribution Estimates to be Paid by Customers in Future</b>							
437	ATCO Electric Britnell Transformer Upgrade	4,922,200	3,027,343	-	590,664	2,916,200	26 May 2009
487	ATCO Electric Updike Substation	13,023,000	11,880,000	150,000	1,425,600	4,747,955	28 Apr 2009
515	Heritage Wind Farm	3,400,000	4,850	-	582	3,395,150	Pending
518	Ghost Pine Wind Farm	2,311,000	2,311,000	-	1,533	2,297,078	Not filed
524	Enel Alberta Riverview Wind Farm	3,720,000	3,720,000	-	775	3,712,767	27 Jan 2009
559	North West Upgrader Facility (Fort Saskatchewan)	29,800,000	22,300,000	17,900,000	2,592,000	16,157,000	Pending
584	Leduc 325S Substation	18,576,000	16,943,000	1,633,000	2,033,160	9,974,960	Not filed
700	TransAlta Rose Valley 635S Substation	7,576,000	7,132,000	-	855,840	1,394,689	10 Dec 2008
709	Connacher Great Divide Oilsands SAGD Project	10,317,000	9,474,921	100,000	1,238,040	1,429,900	Not filed
711	Buffalo Creek Capacity Upgrade	10,785,000	6,217,000	3,629,000	655,440	7,458,880	Pending
712	ATCO Electric Friedenstal 800S Transformer Addition	4,588,000	155,000	4,433,000	18,600	4,964,960	Not filed
722	IPF Lindbergh 969S Substation	12,088,000	11,865,000	223,000	1,423,800	6,451,760	Pending
734	Wainwright 51S Upgrade	6,494,000	2,285,500	4,208,500	274,260	6,047,820	10 Nov 2009
744	Saddle Brook Power Station	15,569,931	44,359	15,525,572	5,323	15,525,572	Pending
748	Three Hills 770S 25 kV Breaker Addition	415,000	415,000	-	50,640	297,000	27 Feb 2009
755	Dome Cutbank 810S Regulator Upgrade	750,000	726,300	23,700	87,156	132,444	29 Apr 2009
769	EPCOR Summerside Substation	20,216,740	12,170,000	4,330,000	1,772,199	11,136,866	29 Jun 2009
778	Mahihkan 837S 25 kV Breaker Addition	359,000	359,000	-	43,080	-	1 Apr 2009
779	Mercer Hill	1,587,000	1,587,000	-	190,440	859,000	15 Jun 2009
801	FortisAlberta Dry Creek Substation Upgrade	4,850,000	4,529,000	321,000	570,000	4,862,000	Not filed
806	Hayter 277S 25 kV Breaker Addition	604,400	503,100	101,300	60,372	113,456	28 Jan 2009
814	Husky Caribou	8,260,000	8,260,000	-	991,200	2,197,000	Pending
821	Christina Lake 723S Capacity Increase	8,050,873	7,600,873	450,000	1,029,451	5,280,873	Not filed
824	Balzac 391S Substation Capacity Increase	7,820,000	4,698,354	1,121,646	563,803	7,746,197	Pending
828	Kearl Oil Sands Project	9,625,471	9,625,471	-	1,155,057	-	14 Aug 2009
829	ENMAX 54S	9,248,840	7,816,347	1,432,493	811,937	1,803,739	Not filed
836	Red Deer 14S 25 kV Breaker Addition	215,000	215,000	-	25,800	-	12 Jun 2009

**AESO Responses to Information Requests  
Projects Impacted by Decision 2009-105**

Project Number	Project Name	A	B	C	D	E	F
		Customer-Related Costs	AESO Standard Facilities	Facilities in Excess of Standard	Reduction in O&M Charge	Adjusted Contribution	Date of Permit and Licence
853	Cold Creek 602S Capacity Upgrade	5,219,000	3,242,000	1,977,000	364,920	2,990,840	Pending
859	Transformer Upgrades at ENMAX No. 5	18,460,856	14,957,946	3,502,910	1,794,954	14,715,425	Not filed
895	Transformer Upgrades at ENMAX No. 24	5,660,000	5,660,000	-	679,920	2,650,080	Not filed
897	Fort Assiniboine Capacity Upgrade	5,863,406	5,231,823	631,583	541,299	5,255,316	Not filed
924	Flyingshot 149S 25 kV Breaker Addition	705,197	705,197	-	84,624	329,477	Not filed
925	Crystal Lake 122S 25 kV Breaker Additions	2,046,338	2,046,388	-	265,721	2,046,338	Not filed
<b>Subtotals (33 Projects)</b>		<b>\$253,127,252</b>	<b>\$187,708,772</b>	<b>\$61,693,704</b>	<b>\$22,198,190</b>	<b>\$148,890,742</b>	
<b>Totals (All 49 Projects)</b>		<b>\$380,768,588</b>	<b>\$303,500,864</b>	<b>\$73,536,948</b>	<b>\$35,575,402</b>	<b>\$217,038,223</b>	

Notes:

- Customer-related costs in Column A comprise costs of AESO “standard facilities” (which may include both demand-related costs and supply-related costs) and of facilities in excess of standard.
- Reductions in O&M charges in Column B result from the removal of the 12% operations and maintenance (O&M) charge from demand-related costs of standard facilities in accordance with Decision 2009-105.
- Adjusted contributions in Column C include customer contributions to costs of:
  - demand-related standard facilities above the maximum investment level available to the project (to which the 12% O&M charge no longer applies),
  - supply-related standard facilities (to which the 12% O&M charge does not apply), and
  - facilities in excess of standard (to which the 12% O&M charge continues to apply).

**Topic:** Decision 2009-105 directed AESO to amend Article 9.4 of AESO's Terms and Conditions with an effective date of August 1, 2008.

**Reference:** Projects Table, October 14, 2009

**Preamble:** "In consideration of the Commission's finding at section 3.4 of Decision 2008-037 that changes to the AESO contribution policy arising from Decision 2007-106 should be made effective at the same time the balance of the 2007 tariff was made effective, and given that Order U2008-017 set the effective date of the 2007 tariff to be August 1, 2008, the Commission directs the AESO to provide a full reconciliation showing the amounts, by project, of any contribution adjustments arising from this Decision in conjunction with its refiling of revised Ts & Cs reflecting this Decision." [Decision 2009-105, paragraph 57.]

The Projects Table of October 14, 2009 listing projects impacted by Decision 2009-105 does not include date information. The Commission wishes to confirm that the Projects Table does not reflect any projects for which the amount of the customer contribution had already been determined by the AESO prior to August 1, 2008.

**Request:**

Please confirm that the AESO had not previously determined the amount of the required customer contribution for any projects listed in the Projects Table prior to August 1, 2008. If this cannot be confirmed, please:

- (1) identify the projects for which a customer contribution had previously been determined;
- (2) in each case, provide a full explanation of the AESO's rationale for determining that the project should be eligible for an adjusted customer contribution as a result of Decision 2009-105.

**Response:**

Not confirmed. Customer contributions are calculated at several stages in the development of a connection project. All projects in the Projects Table were or will be issued permit and licence on or after August 1, 2008, and were thus subject to the AESO's 2007 tariff which became effective on that date and were also eligible for an adjusted customer contribution as a result of Decision 2009-105.

The AESO offers the following additional information in response to the parts (1) and (2) of the information request.

Customer contributions are usually calculated or recalculated at the following stages in project development:

- on receipt of an order of magnitude estimate ( $\pm 30\%$ ),
- on receipt of an interconnection proposal estimate (+15%/–10%), and
- when final costs are provided by the transmission facility owner.

Customer contributions will also usually be recalculated if a customer significantly revises the level or timing of contract capacity included in its system access service request, when there is a significant change to the scope of a project, or if the AESO's tariff changes prior to permit and licence being issued for the project. Many of the projects included in the Projects Table accordingly had one or more customer contribution determinations prior to August 1, 2008.

The final customer contribution policy applied to a project is that which is in effect when the Commission issues permit and licence for the project. Construction of the project usually begins shortly after permit and licence is issued. The practice of applying the contribution policy which exists on the date of permit and licence generally signifies minimal further changes will occur for the project, provides clarity and certainty as to the contribution policy that applies, and minimizes the influence of pending tariff changes on the timing of a project.

All projects included in the Projects Table had permit and licence issued on or after August 1, 2008, or have not yet had permit and licence issued. The Projects Table did not include any project for which permit and licence was issued before August 1, 2008, as such projects were not eligible for the AESO's 2007 tariff which became effective on that date.

The date of permit and licence for each project in the Project Table is included in the attachment to information response AUC.AESO-001. In that attachment, the AESO has also indicated permit and licence as "pending" if a need identification document has been filed for the project, and as "not filed" if a need identification document has not yet been filed for the project. For projects that have not yet been issued permit and licence (including those for which a need identification document has not yet been filed), the contribution policy that applies may be that of a future AESO tariff if such a tariff is approved before permit and licence is issued for the project.

**Topic:** Supporting Calculations

**Reference:** Projects Table Excel File

**Preamble:** Article 9.4 of T&Cs

For customers taking service under Rate DTS, an operations and maintenance charge of 12% will be added to the costs of facilities which exceed the AESO Standard Facilities required to provide service to the Customer.

“**AESO Standard Facilities**” mean the least-cost interconnection facilities which meet good transmission practice including applicable reliability, protection, and operating criteria and standards, and generally consist of a single radial transmission circuit and a single transformer to supply an individual Point of Connection.

**Request:**

- (a) With reference to the projects table, please explain how the 16 (refunds of previously paid contributions) and 32 (reduction in future contributions) projects for which adjustments are required under the new Article 9.4 were identified as eligible projects. Provide full details of the analysis and screening that was carried out for this purpose.
- (b) Decision 2009-105 determined the effective date of the change to Article 9.4 to be August 1, 2008. The AESO indicates the new Article 9.4 was applied to interconnection projects which commenced after August 1, 2008. Please identify the specific event or activity that was used to determine that an interconnection project commenced after August 1, 2008.
- (c) Having identified the projects for which refunds or reductions are applicable, please explain and provide supporting schedules showing how the prepaid O&M contribution applicable to standard facilities and that applicable to non standard facilities was determined for each project.
- (d) Please identify any facilities that have been considered standard facilities for purposes of the projects table even though the subject interconnection is not confined to a single line and/or transformer. Provide reasons for such exceptions.

**Response:**

- (a) Eligibility was based on the date the customer was issued permit and licence (or in some cases where permit and licence is still pending or not yet applied for). Issuance of permit and licence determines the customer contribution policy which will apply to a project. For additional information please refer to information response AUC.AESO-002.

- (b) Please refer to information response AUC.AESO-002.
- (c) The AESO calculated the adjusted customer contribution by:
- applying no O&M charge to the cost of AESO standard facilities for a connection project, and
  - adding 12% to the cost of facilities in excess of standard as an O&M charge, for projects where customer-related costs included such facilities.

The costs of AESO standard facilities and of facilities in excess of standard are provided for each project in the attachment to information response AUC.AESO-001.

- (d) The determination of AESO standard facilities is based on a customer's system access service requirements, and considers the facilities reasonably required to meet the demand and supply forecast of the customer as well as reliability, protection, and operating criteria and standards. The definition of AESO standard facilities was approved In Decision 2005-096 and is as provided in the preamble to this information request.

Although standard facilities "generally consist of a single radial transmission circuit and a single transformer", the AESO regularly determines that two or more circuits, two or more transformers, or both are required to supply system access service and to meet good transmission practice including applicable reliability, protection, and operating criteria and standards. Such cases are consistent with the standard facilities definition and are not exceptions to it.

**Topic:** Incremental O&M and Capital costs

**Reference:** Paragraph 8 of the Application

**Preamble:** The AESO will respond to the final order in Decision 2009-105, to file an analysis of the relationship between incremental operation and maintenance and interconnection capital costs, as part of its upcoming 2010 tariff application.

CCA notes the AESO's local investment as set out in Article 9.6 is not based on standard facilities but rather is a dollar amount of investment with a fixed component and a variable component and the latter, variable with capacity.

**Request:**

- (a) What does the AESO expect to demonstrate following the analysis of the relationship between incremental operation and maintenance and interconnection capital costs, directed by the Commission.
- (b) Given that the maximum investment level is not based on standard facilities but rather on maximum investment dollars, does the AESO see any inconsistency resulting from using a physical facilities test, namely facilities considered to be optional facilities, to determine the prepaid O&M requirement while using a the maximum investment dollars test (as opposed to physical facilities, namely standard facilities) to determine maximum investment. Please explain.
- (c) Will the analysis of the relationship between incremental operation and maintenance and interconnection capital costs, address the question whether O&M included in DTS rates is more closely correlated to maximum investment dollars than to standard facility dollars or vice versa.
- (d) If the results of the analysis of the relationship between incremental operation and maintenance and interconnection capital costs suggests further amendments to Article 9.4, should the contribution adjustments proposed in this compliance proceeding be approved on an interim basis pending completion of the analysis and final approval.

**Response:**

- (a) The AESO has contracted Arnie Reimer of PS Technologies to conduct a more in-depth study of the relationship between incremental operation and maintenance and interconnection capital costs, and specifically to determine an appropriate level for an operations and maintenance charge applicable to incremental interconnection capital costs. The AESO plans to use the findings of the study to propose a level for the operations and maintenance charge in its 2010 tariff application.

- (b) The AESO does not see any inconsistency. The physical facilities are required to satisfy the system access service request of the customer, while the maximum investment level is a financial mechanism that determines the share of those costs recovered over time through rates or up front as a contribution.

The application of the operations and maintenance charge was thoroughly discussed in the review and variance proceeding that resulted in Decision 2009-105, in which the Commission determined that the operations and maintenance charge should apply only to costs of facilities which exceed AESO standard facilities. In its compliance filing, the AESO applied the operations and maintenance charge as directed by the Commission. The AESO considers that further discussion of the relationship between physical facilities, maximum investment level, and operations and maintenance should more properly occur at the time of its tariff application.

- (c) The analysis will assess the cost causation basis for incremental operations and maintenance costs to determine the relationship of those costs to interconnection capital costs as directed by the Commission. Stakeholders have had the opportunity to comment on the scope and interim findings of the study through consultation held by the AESO in preparation of its 2010 tariff application. The AESO considers that further discussion of the analysis should more properly occur at the time of that tariff application.

- (d) The application of the operations and maintenance charge was thoroughly discussed in the review and variance proceeding that resulted in Decision 2009-105, in which the Commission determined on a final basis that the operations and maintenance charge should apply only to costs of facilities which exceed AESO standard facilities. The AESO sees no reason to suggest those findings should be implemented on an interim basis, given that no party suggested such an approach during the review and variance proceeding.