

Appendix 1: EXTERNAL ALLOCATORS – Descriptions and Applications

The table below lists and describes the external allocators used in the Class Cost of Service (CCOSS) model.

Code	Allocator for:	Description	Allocator Rationale & Background
C11	Connection charge revenues	Average monthly customers for the Test Year	Customer connection revenues are driven by number of customer services.
C10	Used to calculate C11	C11 less automatic protective lighting and load management services. C11 less number of customers with a second service.	
C11WAF	Used to calculate C11WA allocator	Customer accounting cost weighting factors. The weighting factor for residential customers is set at 1.0. The weighting factors for other classes are defined relative to costs for residential. E.g., if a class were three times costlier, its factor would be 3.0.	Weighting factors are set so as to reflect the relative costs of meter reading, billing and providing customer service for different classes of customers. For example some rate schedules are significantly more complex requiring more sophisticated meter reading capabilities, billing systems and customer service staff.
C11WA	Customer accounting costs	Average monthly customers weighted by each class' relative rating of customer accounting costs: C11 X C11WAF	Customer accounting costs are driven by number of customers and the complexity of their respective rate, billing issues and customer service requirements.
C12	Used to calculate C12WM allocator	Reflects actual number of meters. C11 with an adjusted street lighting customer count. Only selected street lighting rates are metered	
C12WMF	Used to calculate C12WM allocator	Average meter cost for each customer type	
C12WM	Meter costs	Number of meters multiplied by each class' average meter costs: C12 X C12WMF	Metering costs are driven by the number of customers in each class and the respective metering costs.
C61PS	The "customer" (minimum system) portion of <u>primary</u> distribution line costs	Average monthly customers served at primary or secondary voltage. C11 less transmission transformed and transmission voltage customers	The number of customers served at secondary and primary voltages drives the customer related portion of <u>primary distribution line</u> costs. Transmission and Transmission Transformed voltage customers are excluded since they do not use the distribution system

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Code	Allocator for:	Derivation	Allocator Rationale & Background
C61PS1Ph	The “customer” (minimum system) portion of <u>primary</u> distribution line costs serving just 1-phase customers	An extensive study of the distribution system was performed to determine the portion of each customer class that takes service on a 1-phase distribution line as opposed to a 2-phase or 3-phase line. Then those weighting factors were applied to the C61PS allocator to derive this allocator.	Multi-phase distribution lines emanate from substations, and all primary and secondary voltage customers should share in those costs. Then the multi-phase lines split into 1-phase lines. Since only smaller customers take service on these lines, only those smaller customers should pay for those costs.
C62Sec	The “customer” (minimum system) portion of secondary (not primary) distribution line costs	Average monthly customers served at secondary voltage. C61PS less primary voltage customers	The number of customers served at secondary voltage drives the customer related portion of <u>secondary distribution line</u> costs. Transmission and primary voltage customers are excluded since they do not use the secondary distribution system.
C62NL	The “customer” (minimum system) portion of <u>service-line</u> costs.	Adjusted average monthly secondary voltage customers. C62Sec less street lighting and C&I underground customers	The number of secondary customers drives the customer portion of <u>service line</u> costs. C&I underground secondary customers are excluded since they own their services. Lighting customers are excluded since they do not have services.
D60Sub	Distribution substation costs	Class Coincident peak measured at the high voltage side of the Distribution Substation less Class Coincident peak of Transmission Voltage customers	<u>Distribution substation</u> costs are driven by class peak demands, whenever they occur which is generally at times other than the total system peak. Transmission voltage customers are excluded since they do not use the distribution substation.
D61PS	The <u>capacity</u> portion of <u>primary</u> distribution line costs.	D60Sub less Transmission Transformed customer demands, less customer demands served by minimum distribution system and with reduced Residential Space Heating demands to reflect the fact that their summer peak is less than their winter peak.	The driver of <u>primary distribution line</u> costs is the class coincident demands less the minimum system demand of each class. The minimum demand is classified as a customer related cost. Also transmission and transmission transformed voltage customers are excluded since they do not use the distribution system.
D61PS1Ph	The <u>capacity</u> portion of <u>primary</u> distribution line costs serving just 1-phase customers	This allocator uses the same weightings as developed in C61PS1Ph	The rationale for this allocator is the same as for the C61PS1Ph allocator.
D62Sec	Used to calculate the D62SecL allocator	D61PS less class coincident demands of primary voltage customers	

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D62SecL	The <u>capacity</u> portion of <u>secondary</u> distribution line costs	D62SecL equals the average of D62Sec percent and non-coincident (or “individual customer peak”) secondary voltage percent.	Capacity related <u>secondary distribution line</u> costs are driven by both class coincident peak demand and individual customer maximum demand, less the minimum system demand of each class. (The minimum system demand is as customer related.) Also, transmission and primary voltage customers are excluded since they do not use the secondary distribution system.
D62NLL	The <u>capacity</u> portion of <u>service-line</u> costs	Non-coincident (or “customer peak”) demand for secondary voltage customers, less the customer peak demand for street lighting, area lighting and C&I customers served underground	Capacity related <u>service line</u> costs are driven by individual customer maximum demands less the minimum system demand of each class. (The minimum system demand is customer related.) Transmission voltage, primary voltage and lighting customers are excluded since they do not cause service related costs. Also excluded are C&I underground customers since they install their own services.
D10S	Summer season portion of capacity-related generation costs	Each class’ % contribution to the single summer system peak. Summer months are June through September.	The class contribution to the system summer peak drives the summer portion of capacity-related <u>generation</u> costs.
D10W	Winter season portion of capacity-related generation costs (no longer used)	Each class’ % contribution to the single winter system peak. Winter months are October through May.	The class contribution to the system winter peak drives the winter portion of capacity-related generation costs.
D10T	Transmission plant costs. (no longer used)	Weighted Class Contributions to Summer and Winter Peak loads. Allocator equals (D10W% plus (D10S% times weighting factor 1)) divided by (1 + weighting factor 1). The factor is the ratio of the average summer and winter seasonal system peaks.	The driver for <u>transmission</u> costs is class contribution to the summer & winter system peaks. To reflect the fact that summer peaks have more impact, the summer peak contribution for each class is weighted by the ratio of average monthly summer and average monthly winter system peaks.

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D10C	Capacity-related generation costs. (no longer used)	Weighted of Class Contributions to Summer and Winter system peak loads. Allocator equals (D10W% plus (D10S% times weighting factor 2)) divided by (1 + weighting factor 2). The factor is obtained from the average summer and winter season peak loads, after subtracting the average annual load from each monthly load.	Capacity- related <u>generation</u> costs are driven by class contribution to summer & winter system peaks. To reflect the fact that summer peaks have a disproportionate impact on capacity-related generation costs, the summer peak is weighted by the ratio of average monthly summer and winter system peaks, which are in excess of average annual demand.
DADist	Certain distribution costs.	Class percents are directly selected to correspond to known distribution investments for a given customer class.	If a customer class directly and identifiably causes a certain cost, that class should pay for those costs.
DASL	Certain street lighting costs.	Class percents are directly selected to correspond to known street lighting investments for a given customer class.	If a customer class directly and identifiably causes a certain cost, that class should pay for those costs.
DATran	Certain transmission costs.	Class percents are directly selected to correspond to known transmission investments for a given customer class.	If a customer class directly and identifiably causes a certain cost, that class should pay for those costs.
E8760	Energy-related portion of generation, nuclear fuel capital and generation step-up costs. Also allocator for fuel, purchased energy and energy-related fixed generation costs.	Class hourly energy (MWH) requirements multiplied by the corresponding hourly marginal energy cost.	The driver of these costs is energy requirements, which is measured by hourly energy requirements weighted by hourly marginal energy costs.
R01	Interdepartmental revenue, Regulatory Expense and Gross Earnings Tax	Class present revenues	These items are proportional to revenue.