California Non-Residential New Construction Characteristics Database

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1. Introduction

This document describes the *Survey-IT* database delivered with the report titled *California Non-Residential New Construction Baseline Report* and dated January 13, 1999. The database contains combined data collected during the Southern California Edison and Pacific Gas & Electric 1994 Non-Residential New Construction program evaluation, the 1996 Edison NRNC program evaluation, and the 1996 PG&E NRNC program evaluation. A total of 812 new commercial construction sites were audited over the course of these projects. Each site was either a new commercial building, an addition to an existing building, or a renovation. Only space that was new or remodeled was included in the audit. The audit information was used to build a DOE-2 model for each site to generate energy consumption estimates for each site.

2. Database Structure

The overall structure of the database is described in this section.

2.1 Overview

The database was developed using Microsoft® Access 97. The database tables can be divided into three categories:

- aggregated data tables
- site-level data tables
- lookup tables

The aggregated data tables are based on data queries and were developed for the baseline report. The site-level data tables contain audit information entered by the surveyors for individual buildings. The lookup tables are used by the database user interface.

2.2 Aggregated Data Tables

The following table lists the queries and tables developed to prepare the baseline report. Each table has the same basic structure: the first column contains the site identification number, the second column contains a basis used for weighting the data in the statistical analysis for the baseline report, and the remaining fields are the building parameters multiplied by the basis. For example, the basis for the table *CEC_WindowFrameType* is total window area, and the value in each field is the window area with that frame type. A more unusual example would be the table *CEC_AvgHeatSchedule* where the basis is the heated floor area in the building, and the value provided for each hour of the week is the average thermostat setting for the building multiplied by the basis. To calculate the average thermostat settings for the building, the data for each hour of the week must be divided by the basis.

The column on the left lists the highest level tables, used directly in statistical analysis for preparing the baseline report. The right-hand column describes the tables and lists sub-queries used in developing them.

Table Name	**Description**
CEC_GeneralInfo	The building type, climate zone, total floor area, unconditioned and conditioned
CEC_WindowTotalArea	Window area broken out by exposure (N, NE, E, SE, S, SW, W, NW)
CEC_WindowFrameType	Window frames broken out by type and area weighted
CEC_WinSCandUValues	Window U-value and shading coefficient broken out by orientation
CEC_SkylightFrameType	Skylight frames broken out by type and area weighted
CEC_SkySCandUValues	Skylight U-value and shading coefficient
CEC_AvgHeatSchedule	Average heating schedule for each day using SchTStat
CEC_AvgCoolSchedule	Average cooling schedule for each day using SchTStat
CEC_AvgLightSchedule	Average lighting loads for each day using Sched2
CEC_AvgEquipSchedule	Average equipment loads for each day using Sched2
CEC_AvgPeopleSchedule	Average occupancy schedule for each day
CEC_AvgFanSchedule	Average fan schedule for each day
CEC_WindowTotalArea	Window area broken out by exposure (N, NE, E, SE, S, SW, W, NW). *Subqueries:* CEC_WindowTotalArea All (basis) CEC_WindowTotalArea {N, NE, E, SE, S, SW, W, NW}
CEC_WindowGlassType	Window area broken out by combinations of glass type (clear, reflective, tinted) and number of panes (1, 2, 3). *Subqueries:* CEC_WindowTotalArea All (basis) CEC_WindowGlass1Pane {Clear, Reflec, Tint} CEC_WindowGlass2Pane {Clear, Reflec, Tint} CEC_WindowGlass3Pane {Clear, Reflec, Tint}
CEC_SkylightTotalArea	Total skylight area. *Subqueries:* CEC_TotalFloorArea (basis) CEC_SkylightTotalArea Subquery
CEC_SkylightGlassType	Skylight area broken out by glass type (clear, reflective, tinted). *Subqueries:* CEC_SkylightGlassType All (basis) CEC_SkylightGlassType {Clear, Reflec, Tint}
CEC_WallConstructionType	Wall area broken out by wall construction type. *Subqueries:* CEC_WallNetArea (basis) CEC_WallNetArea Subquery CEC_WallAreaByOri (wall area grouped by site, zone, orientation) CEC_WindowAreaByOri (window area grouped by site, zone, orientation) CEC_WallConstructionType {1, 2, 3, 4, 5, 6, 7, 8, 9}
CEC_WallUValue	Average wall U-value. *Subqueries:* CEC_WallUvalSum Subquery CEC_WallUval Subquery (calculate net wall area by reducing gross area by window fraction) CEC_WallUvalAreaByOri (wall area & area-weighted U-values grouped by site, zone, orientation. Uses VBA module CEC_WallUValue to calculate U-values given wall type

	& R-value.) CEC_WindowAreaByOri (window area grouped by site, zone, orientation)
CEC_RoofConstructionType	Roof area broken out by roof construction type. *Subqueries:* CEC_RoofNetArea (basis) CEC_RoofNetArea Subquery (calculate net roof area by reducing gross area by sky-light fraction) CEC_RoofAreaByZone (roof area grouped by site, zone) CEC_SkylightAreaByZone (skylight area grouped by site, zone) CEC_RoofConstructionType {10, 11, 12}
CEC_RoofUValue	Average roof U-value. *Subqueries:* CEC_RoofUvalSum Subquery CEC_RoofUval Subquery (calculate net roof area by reducing gross area by skylight fraction) CEC_RoofUvalArea (roof area & area-weighted U-values grouped by site, zone. Uses VBA module CEC_WallUValue to calculate U-values given roof type & R-value.) CEC_SkylightAreaByZone (skylight area grouped by site, zone)

Table Name	**Description**
CEC_LightingAndEquipLoads	Lighting loads, plug loads, electric process loads, and non-electric process loads. *Subqueries:* CEC_TotalFloorArea (basis) CEC_LightingLoadSum Subquery CEC_LightingLoadSumBySpace Subquery (sums power and area of each space) CEC_EqPlugLoad CEC_EqProcLoadWattSum (electric process loads) CEC_EqProcLoadWattUnion CEC_EqProcLoadBtuhSum (non-electric process loads) CEC_EqProcLoadBtuhUnion CEC_EqLoadSum Subquery CEC_EqLoadSumBySpace Subquery CEC_EqLoadUnion Subquery (union of "CEC_EqLoad Subquery" & "CEC_TypEqLoad Subquery") CEC_EqLoad Subquery CEC_EquipKW Subquery CEC_TypEqLoad Subquery (loads of any typical spaces) CEC_TypEquipKW Subquery CEC_KitEqLoadBySite (kitchen equipment load) CEC_KitEqLoadByZone CEC_KitEqKW
CEC_LightingFixtureTypes	Lighting load (kW), broken out by fixture type. *Subqueries:* CEC_LightingWatts (basis) CEC_LightingLamp {BX, CF, E, Fluor, H, HPS, I, MH, MV}
CEC_LightingLampBallast	Fluorescent lighting load (kW), broken out by lamp type (T8, T12) and ballast types (electronic, energy saving magnetic, standard magnetic). *Subqueries:* CEC_LightingLampFluor (basis) CEC_LightingLampBallastT8 {Elec, MagES, MagStd} CEC_LightingLampBallastT12 {Elec, MagES, MagStd}
CEC_LightingControlTypes	Lighting load (kW), broken out by control type. *Subqueries:* CEC_LightingWatts (basis) CEC_LightingControlType {1, 2, 3, 4, 5, 6, 7}
CEC_HVACControl	Conditioned floor area under HVAC control modes. *Subqueries:* CEC_HVACControl Subquery CEC_TotalFloorArea (basis) CEC_CondFloorArea2 CEC_HVACControl5 CEC_HVACControl10 CEC_HVACControl13a CEC_HVACControl13b CEC_HVACControl14
CEC_DistribSys	Floor area served by HVAC distribution systems, broken out by type. *Subqueries:*

	CEC_TotalFloorArea (basis) CEC_UnCondFloorArea CEC_PkgHvacAll (sums area) CEC_VsysPkgHvacAll (virtual systems served) CEC_Centair {SingleDuct, DualDuct, Multizone} (sums area) CEC_VsysCentair {SingleDuct, DualDuct, Multizone} (virtual systems served) CEC_ZonalFloorArea (areas of virtual systems of type “Z”) CEC_TotalZoneArea (area by space)

Table Name	**Description**
CEC_HeatingSysType	Floor area served by heating systems, broken out by heating system type (packaged, zone-level, built-up) and fuel type (electric, non-electric, mixed). *Subqueries:* CEC_HeatingSysType2 CEC_TotalFloorArea (basis) CEC_UnCondFloorArea CEC_PkgHvac {Elec, NonElec, Mixed, All} (sums area) CEC_VsysPkgHvac {Elec, NonElec, Mixed, All} (virtual systems served) CEC_ZoneHvac {Elec, NonElec, Mixed, All} Area (sums area) CEC_ZonesZoneHvac {Elec, NonElec, Mixed, All} (zones served) CEC_BuiltUp {Elec, NonElec, Mixed, All} (determines If built-up exists)
CEC_HeatingEffPkg	Heating COP * floor area served by packaged HVAC systems, broken out by combinations of system type (A, C, D) and size (S, M, L, XL). *Subqueries:* CEC_HeatingEffPkgA CEC_PkgHvacEff_HtgA {S, M, L, XL} (capacity-weights efficiency) CEC_PkgHvacEff_HtgA {S, M, L, XL} _Sum (sums COP * CoolingCapacity) CEC_PkgHvacArea_HtgA {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Htg (total packaged capacity, used to capacity-weight area) CEC_VsysPkgHvac_HtgA {S, M, L, XL} (virtual systems served) CEC_PkgHvac_HtgA {S, M, L, XL} (packaged systems that fit the criteria) CEC_HeatingEffPkgC CEC_PkgHvacEff_HtgC {S, M, L, XL} (capacity-weights efficiency) CEC_PkgHvacEff_HtgC {S, M, L, XL} _Sum (sums COP * CoolingCapacity) CEC_PkgHvacArea_HtgC {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Htg (total packaged capacity, used to capacity-weight area) CEC_VsysPkgHvac_HtgC {S, M, L, XL} (virtual systems served) CEC_PkgHvac_HtgC {S, M, L, XL} (packaged systems that fit the criteria) CEC_HeatingEffPkgD CEC_PkgHvacEff_HtgD {S, M, L, XL} (capacity-weights efficiency) CEC_PkgHvacEff_HtgD {S, M, L, XL} _Sum (sums COP * CoolingCapacity) CEC_PkgHvacArea_HtgD {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Htg (total packaged capacity, used to capacity-weight area) CEC_VsysPkgHvac_HtgD {S, M, L, XL} (virtual systems served) CEC_PkgHvac_HtgD {S, M, L, XL} (packaged systems that fit the criteria)
CEC_HeatingEffBasisPkg	Floor area served by packaged HVAC systems, broken out by combinations of system type (A, C, D) and size (S, M, L, XL). The basis values for CEC_HeatingEffPkg. *Subqueries:* CEC_HeatingEffBasisPkgA CEC_PkgHvacArea_HtgA {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Htg (total capacity, used to capacity-weight area) CEC_VsysPkgHvac_HtgA {S, M, L, XL} (virtual systems served) CEC_PkgHvac_HtgA {S, M, L, XL} (packaged systems that fit the criteria) CEC_HeatingEffBasisPkgC CEC_PkgHvacArea_HtgC {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Htg (total capacity, used to capacity-weight area) CEC_VsysPkgHvac_HtgC {S, M, L, XL} (virtual systems served) CEC_PkgHvac_HtgC {S, M, L, XL} (packaged systems that fit the criteria) CEC_HeatingEffBasisPkgD CEC_PkgHvacArea_HtgD {S, M, L, XL} (sums area)

	CEC_VsysPkgHvac_Htg (total capacity, used to capacity-weight area) CEC_VsysPkgHvac_HtgD {S, M, L, XL} (virtual systems served) CEC_PkgHvac_HtgD {S, M, L, XL} (packaged systems that fit the criteria)

Table Name	**Description**
CEC_CoolingSysType	Floor area served by cooling systems, broken out by cooling system type. *Subqueries:* CEC_TotalFloorArea (basis) CEC_PkgHvac {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11} (sums area) CEC_VsysPkgHvac {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11} (virtual systems served) CEC_ChillerArea (chiller area = sum of areas of central air handlers and fan coil/induction terminal zonal heaters) CEC_ChillerSites (sites w/ chillers) CEC_Centair {SingleDuct, DualDuct, Multizone} (sums area) CEC_VsysCentair {SingleDuct, DualDuct, Multizone} (virtual systems served) CEC_ZoneHvacPipeArea (sums area) CEC_ZonesZoneHvacPipe (zones served by fan coil/induction terminal zonal heater)
CEC_CoolingEffPkg	Cooling EER * floor area served by packaged HVAC systems, broken out by combinations of system type (A, B, C, D) and size (S, M, L, XL). *Subqueries:* CEC_CoolingEffBasisPkgA CEC_PkgHvacEff_ClgA {S, M, L, XL} (capacity-weights efficiency) CEC_PkgHvacEff_ClgA {S, M, L, XL} _Sum (sums COP * CoolingCapacity) CEC_PkgHvacArea_ClgA {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total packaged capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgA {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgA {S, M, L, XL} (packaged systems that fit the criteria) CEC_CoolingEffBasisPkgB CEC_PkgHvacEff_ClgB {S, M, L, XL} (capacity-weights efficiency) CEC_PkgHvacEff_ClgB {S, M, L, XL} _Sum (sums COP * CoolingCapacity) CEC_PkgHvacArea_ClgB {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total packaged capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgB {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgB {S, M, L, XL} (packaged systems that fit the criteria) CEC_CoolingEffBasisPkgC CEC_PkgHvacEff_ClgC {S, M, L, XL} (capacity-weights efficiency) CEC_PkgHvacEff_ClgC {S, M, L, XL} _Sum (sums COP * CoolingCapacity) CEC_PkgHvacArea_ClgC {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total packaged capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgC {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgC {S, M, L, XL} (packaged systems that fit the criteria) CEC_CoolingEffBasisPkgD CEC_PkgHvacEff_ClgD {S, M, L, XL} (capacity-weights efficiency) CEC_PkgHvacEff_ClgD {S, M, L, XL} _Sum (sums COP * CoolingCapacity) CEC_PkgHvacArea_ClgD {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total packaged capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgD {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgD {S, M, L, XL} (packaged systems that fit the criteria)

Table Name	**Description**
CEC_CoolingEffBasisPkg	Floor area served by packaged HVAC systems, broken out by combinations of system type (A, B, C, D) and size (S, M, L, XL). The basis values for CEC_CoolingEffPkg. *Subqueries:* CEC_CoolingEffBasisPkgA CEC_PkgHvacArea_ClgA {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgA {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgA {S, M, L, XL} (packaged systems that fit the criteria) CEC_CoolingEffBasisPkgB CEC_PkgHvacArea_ClgB {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgB {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgB {S, M, L, XL} (packaged systems that fit the criteria) CEC_CoolingEffBasisPkgC CEC_PkgHvacArea_ClgC {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgC {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgC {S, M, L, XL} (packaged systems that fit the criteria) CEC_CoolingEffBasisPkgD CEC_PkgHvacArea_ClgD {S, M, L, XL} (sums area) CEC_VsysPkgHvac_Clg (total capacity, used to capacity-weight area) CEC_VsysPkgHvac_ClgD {S, M, L, XL} (virtual systems served) CEC_PkgHvac_ClgD {S, M, L, XL} (packaged systems that fit the criteria)
CEC_CoolingEffChill	Cooling EER * floor area served by chillers, broken out by combinations of system type (A, B, C, D) and size (S, M, L). *Subqueries:* CEC_ChillerAreaByType CEC_ChillerArea (chiller area = sum of areas of central air handlers and fan coil/induction terminal zonal heaters) CEC_ChillerSites (sites w/ chillers) CEC_Centair {SingleDuct, DualDuct, Multizone} (sums area) CEC_VsysCentair {SingleDuct, DualDuct, Multizone} (virtual systems served) CEC_ZoneHvacPipeArea (sums area) CEC_ZonesZoneHvacPipe (zones served by fan coil/induction terminal zonal heater) CEC_ChillerEff_All_Sum CEC_ChillerEff_A {S, M, L} (capacity-weights efficiency) CEC_ChillerEff_B {S, M, L} (capacity-weights efficiency) CEC_ChillerEff_C {S, M, L} (capacity-weights efficiency) CEC_ChillerEff_D {S, M, L} (capacity-weights efficiency) CEC_ChillerEff_A {S, M, L} _Sum CEC_ChillerEff_B {S, M, L} _Sum CEC_ChillerEff_C {S, M, L} _Sum CEC_ChillerEff_D {S, M, L} _Sum

Table Name	Description
CEC_CoolingEffBasisChill	Floor area served by chillers, broken out by combinations of system type (A, B, C, D) and size (S, M, L). The basis values for CEC_CoolingEffChill. *Subqueries:* CEC_ChillerAreaByType CEC_ChillerArea (chiller area = sum of areas of central air handlers and fan coil/induction terminal zonal heaters) CEC_ChillerSites (sites w/ chillers) CEC_Centair {SingleDuct, DualDuct, Multizone} (sums area) CEC_VsysCentair {SingleDuct, DualDuct, Multizone} (virtual systems served) CEC_ZoneHvacPipeArea (sums area) CEC_ZonesZoneHvacPipe (zones served by fan coil/induction terminal zonal heater) CEC_ChillerEff_All_Sum CEC_ChillerEff_A {S, M, L} _Sum CEC_ChillerEff_B {S, M, L} _Sum CEC_ChillerEff_C {S, M, L} _Sum CEC_ChillerEff_D {S, M, L} _Sum
CEC_Basis	A summary of the basis fields of all the CEC queries (except for heating efficiency, cooling efficiency, and schedules—because they have their own basis tables). This query requires the tables produced by the other queries; therefore, all the other queries must be run before running CEC_Basis. *Subqueries:* CEC_Basis1 CEC_Basis2

The remainder of this section describes the fields in each of the aggregate tables.

2.2.1 CEC_GeneralInfoTable

Field Heading	Value	Comments
SITEID		
T24Type	Type code 1 - 17	Building type according to Title 24 definitions. See definitions below.
Climate Zone	Climate zone	Corresponds to CEC climate zones
Cond Floor Area	Conditioned floor area (SF)	
UnCond Floor Area	Unconditioned floor area (SF)	
Floor Area	Total floor area (SF)	

Building type code definitions:

Type code	Definition
1	C&I Storage
2	Grocery Store
3	General C&I Work
4	Medical/Clinical
5	Office
6	Other
7	Religious Worship, Audito-
8	Restaurant

9	Retail and Wholesale Store
10	School
11	Theater

Type code	**Definition**
12	Unknown
13	Hotels/Motels
14	Fire/Police/Jails
15	Community Center
16	Gymnasium
17	Libraries

CEC_GeneralInfo uses the following subqueries for the area fields.

- CEC_CondFloorArea
- CEC_UnCondFloorArea
- CEC_TotalFLoorArea

Each of these queries rely on the CEC_TotalZoneArea query. This query determines the area per zone and whether that space is unconditioned or conditioned. The area queries simply separate the different types and sum them up.

2.2.2 CEC_BasisTable

Field Heading	**Value**	**Comments**
SITEID		
Basis	1	1 for all sites
EquipKW	Total equip connected load (kW)	Basis for CEC_AvgEquipSchedule
LightKW	Total lighting connected load (kW)	Basis for CEC_AvgLightSchedule
People	Total peak occupancy (people)	Basis for CEC_AvgPeopleSchedule
FanCondArea	Total Conditioned Floor Area (SF)	Basis for CEC_AvgFanSchedule
CoolingSys FloorArea	Total Building Floor Area (SF)	Basis for CEC_CoolingSysTypeTable
DistribSys FloorArea	Total Building Floor Area (SF)	Basis for CEC_DistribSysTable
HeatingSys FloorArea	Total Building Floor Area (SF)	Basis for CEC_HeatingSysTypeTable
LightEquipLoads FloorArea	Total Building Floor Area (SF)	Basis for CEC_LightingAndEquipLoadsTable
LightingControlKW	Total lighting connected load (kW)	Basis for CEC_LightingControlTypesTable
LightingFixtureKW	Total lighting connected load (kW)	Basis for CEC_LightingFixtureTypesTable
FluoresKW	Total fluorescent fixture connected load (kW)	Basis for CEC_LightingLampBallastTable
RoofArea	Total roof area (SF)	Basis for CEC_RoofConstructionTypeTable
SkylightFrame SkylightArea	Total skylight area (SF)	Basis for CEC_SkylightFrameTypeTable
SkylightGlass SkylightArea	Total skylight area (SF)	Basis for CEC_SkylightGlassTypeTable
SkySCandUValue SkylightArea	Total skylight area (SF)	Basis for CEC_SkySCandUValueTable
SkylightTotalArea FloorArea	Total Building Floor Area (SF)	Basis for CEC_SkylightTotalAreaTable
WallArea	Total gross (including windows) wall area (SF)	Basis for CEC_WallConstructionTypeTable
WindowFrame WindowArea	Total Window Area (SF)	Basis for CEC_WindowFrameTypeTable

WindowGlass WindowArea	Total Window Area (SF)	Basis for CEC_WindowGlassTypeTable

Field Heading	Value	Comments
WinUValue WindowArea	Total Window Area (SF)	Basis for CEC_WinUValueTable
E Area	Total East Window Area (SF)	Basis for CEC_WinSCEastTable
N Area	Total North Window Area (SF)	Basis for CEC_WinSCNorthTable
NE Area	Total Northeast Window Area (SF)	Basis for CEC_WinSCNETable
NW Area	Total Northwest Window Area (SF)	Basis for CEC_WinSCNWTable
S Area	Total South Window Area (SF)	Basis for CEC_WinSCSouthTable
SE Area	Total Southeast Window Area (SF)	Basis for CEC_WinSCSETable
SW Area	Total Southwest Window Area (SF)	Basis for CEC_WinSCSWTable
W Area	Total West Window Area (SF)	Basis for CEC_WinSCWestTable
WindowArea	Total Window Area (SF)	Basis for CEC_WindowTotalAreaTable
HVACControl FloorArea	Total Building Floor Area (SF)	Basis for CEC_HVACControlTable
EUIArea	Total Building Floor Area (SF)	Basis for CEC_EUITable
SizingRatio CondArea	Total Cooling Conditioned Floor Area (SF)	Basis for CEC_CoolingSizingTable
WallUVal Area	Net Wall Area (SF)	Basis for CEC_WallUValue
RoofUVal Area	Net Roof Area (SF)	Basis for CEC_RoofUValue

2.2.3 CEC_AvgEquipSchedule

Field Heading	Value	Comments
SITEID		
kW	Total connected load (kW)	Basis
Mon1	kW on this hour	
Mon2	Ditto above	
Mon3		
Mon4		
Mon5		
Etc		
Etc		
Sun 17		
Sun 18		
Sun 19		
Sun 20		
Sun 21		
Sun 22		
Sun 23		
Sun 24		

2.2.4 CEC_AvgLightSchedule

Field Heading	Value	Comments
SITEID		
kW	Total connected load (kW)	Basis
Mon1	kW on this hour	
Mon2	Ditto above	
Mon3		
Mon4		
Mon5		
Etc		
Etc		
Sun 17		
Sun 18		
Sun 19		
Sun 20		
Sun 21		
Sun 22		
Sun 23		
Sun 24		

2.2.5 CEC_AvgPeopleSchedule

Field Heading	Value	Comments
SITEID		
People	Total peak occupancy (people)	Basis
Mon1	People this hour	
Mon2	Ditto above	
Mon3		
Mon4		
Mon5		
Etc		
Etc		
Sun 17		
Sun 18		
Sun 19		
Sun 20		
Sun 21		
Sun 22		
Sun 23		
Sun 24		

2.2.6 CEC_AvgCoolSchedule

Field Heading	Value	Comments
SITEID		
Area	Total Conditioned Floor Area	Basis (SF)
Mon1	Cooling Setpoint * Area	Deg F - SF
Mon2	Ditto above	Ditto above
Mon3		
Mon4		
Mon5		
Etc		
Etc		
Sun 17		
Sun 18		
Sun 19		
Sun 20		
Sun 21		
Sun 22		
Sun 23		
Sun 24		

2.2.7 CEC_AvgFanSchedule

Field Heading	Value	Comments
SITEID		
Area	Total Conditioned Floor Area	Basis
Mon1	Conditioned floor area “on” this hour	SF
Mon2		
Mon3		
Mon4		
Mon5		
Etc		
Etc		
Sun 17		
Sun 18		
Sun 19		
Sun 20		
Sun 21		
Sun 22		
Sun 23		
Sun 24		

2.2.8 CEC_AvgHeatSchedule

Field Heading	Value	Comments
SITEID		
Area	Total Conditioned Floor Area	Basis
Mon1	Heating Setpoint * Area	Deg F - SF
Mon2		
Mon3		
Mon4		
Mon5		
Etc		
Etc		
Sun 17		
Sun 18		
Sun 19		
Sun 20		
Sun 21		
Sun 22		
Sun 23		
Sun 24		

2.2.9 CEC_CoolingSysTypeTable

Field Heading	Value	Comments
SITEID		
Floor Area	Total Building Floor Area	Basis SF
None	Area served by system type	Uncooled SF
SinglePkgRoofAC	Area served by system type	Rooftop Air Cond SF
SinglePkgRoofHP	Area served by system type	Rooftop Heat Pump SF
SplitSysAC	Area served by system type	Split system Air Cond SF
SplitSysHP	Area served by system type	Split system Heat Pump SF
PTAC	Area served by system type	Packaged Terminal AC SF
PTHP	Area served by system type	Packaged Terminal HP SF
WinWallAC	Area served by system type	Window/Wall AC SF
WinWallHP	Area served by system type	Window/Wall HP SF
WaterLoopHP	Area served by system type	Water loop heat pump SF
DualFuelHP	Area served by system type	Dual Fuel Heat Pump SF
EvapSys	Area served by system type	Evaporative cooler SF
Chiller	Area served by system type	Built-up system SF

2.2.10 CEC_DistribSystemTable

Field Heading	Value	Comments
SITEID		
Floor Area	Total Building Floor Area	Basis SF
None	Area served by system type	Unconditioned SF
Packaged	Area served by system type	Packaged system SF – see CEC_CoolSystemTypeTable for breakdown (excluding field "chiller")
SingleDuct	Area served by system type	Single duct built-up system SF
DualDuct	Area served by system type	Dual duct built-up system SF
MultiZone	Area served by system type	Multizone built-up system SF
Zonal	Area served by system type	Zonal system (baseboard, unit heater, fan coil, etc.) SF

2.2.11 CEC_HeatingSysTypeTable

Field Heading	Value	Comments
SITEID		
FloorArea	Total Building Floor Area	Basis SF
PkgElec	Area served by system type	Packaged system w/ electric heat SF – includes resistance and heat pumps
PkgNonElec	Area served by system type	Packaged system w/ non-electric heat SF
PkgMixed	Area served by system type	Packaged system w/ both electric and non-electric heat SF – includes resistance and heat pumps
ZoneElec	Area served by system type	Zonal system w/ electric heat SF (baseboard, unit heater, fan coil, etc.)
ZoneNonElec	Area served by system type	Zonal system w/ non-electric heat SF (baseboard, unit heater, fan coil, etc.)
ZoneMixed	Area served by system type	Zonal system w/ both electric and non-electric heat SF (baseboard, unit heater, fan coil, etc.)
BuiltUpElec	Area served by system type	Built-up system w/ electric heat SF
BuiltUpNonElec	Area served by system type	Built-up system w/ non-electric heat SF
BuiltUpMixed	Area served by system type	Built-up system w/ both electric and non-electric heat SF
None	Area served by system type	Unheated SF

2.2.12 CEC_LightingAndEquipLoadsTable

Field Heading	Value	Comments
SITEID		
Floor Area	Total Building Floor Area SF	Basis
LightingW	Total lighting watts	Connected load
PlugLoadW	Total plug load watts	Connected load
ProcLoadElecW	Total electric process load watts	Connected load
ProcLoadNonElecBtuh	Total non-electric process load Btu/hr	Connected load

2.2.13 CEC_LightingControlTypesTable

Field Heading	Value	Comments
SITEID		
TotalKW	Total lighting connected load (kW)	Basis
OccSensKWCtrl	Total lighting load connected to occupancy sensor control (kW)	
OccSensKWCtrlOper	Total lighting load connected to functioning occupancy sensor control (kW)	Based on on-site survey observations of broken or disabled controls
DayltContDimKWCtrl	Total lighting load connected to continuous dimming daylight control (kW)	
DayltContDimKWCtrlOper	Total lighting load connected to functioning continuous dimming daylight control (kW)	Based on on-site survey observations of broken or disabled controls
DayltStepKWCtrl	Total lighting load connected to stepped dimming daylight control (kW)	
DayltStepKWCtrlOper	Total lighting load connected to functioning stepped dimming daylight control (kW)	Based on on-site survey observations of broken or disabled controls
LumenMaintKWCtrl	Total lighting load connected to lumen maintenance control (kW)	
LumenMaintKWCtrlOper	Total lighting load connected to functioning lumen maintenance control (kW)	Based on on-site survey observations of broken or disabled controls
OccSensDayltKWCtrl	Total lighting load connected to combined occupancy sensor and daylight control (kW)	
OccSensDayltKWCtrlOper	Total lighting load connected to functioning combined occupancy sensor and daylight control (kW)	Based on on-site survey observations of broken or disabled controls
OccSensLumenKWCtrl	Total lighting load connected to combined occupancy sensor and lumen maintenance control (kW)	
OccSensLumenKWCtrlOper	Total lighting load connected to functioning combined occupancy sensor and lumen maintenance control (kW)	Based on on-site survey observations of broken or disabled controls
DayltLumenKWCtrl	Total lighting load connected to combined daylighting and lumen maintenance control (kW)	
DayltLumenKWCtrlOper	Total lighting load connected to functioning combined daylighting and lumen maintenance control (kW)	Based on on-site survey observations of broken or disabled controls

2.2.14 CEC_LightingFixtureTypesTable

Field Heading	Value	Comments
SITEID		
TotalKW	Total lighting connected load (kW)	Basis
BiaxialKW	Total biax fixture connected load (kW)	
CompactFluorKW	Total compact fluorescent fixture connected load (kW)	
ExitKW	Total exit sign connected load (kW)	
FluoresKW	Total fluorescent fixture connected load (kW)	All fluorescent types except biax and CFL
HalogenKW	Total halogen fixture connected load (kW)	Halogen incandescent
SodiumKW	Total sodium fixture connected load (kW)	High-pressure and low-pressure sodium
IncandesKW	Total incandescent fixture connected load (kW)	Other incandescent (not halogen)
MetalHalideKW	Total metal halide fixture connected load (kW)	
MercuryKW	Total mercury vapor fixture connected load (kW)	

2.2.15 CEC_LightingLampBallastTable

Field Heading	Value	Comments
SITEID		
FluoresKW	Total fluorescent fixture connected load (kW)	Basis
T8ElecKW	Total fluorescent fixture with T-8 lamp and electronic ballast connected load (kW)	
T8MagESKW	Total fluorescent fixture with T-8 lamp and energy saving magnetic ballast connected load (kW)	
T12ElecKW	Total fluorescent fixture with T-12 lamp and electronic ballast connected load (kW)	
T12MagESKW	Total fluorescent fixture with T-12 lamp and energy-saving magnetic ballast connected load (kW)	
T12MagStdKW	Total fluorescent fixture with T-12 lamp and standard magnetic ballast connected load (kW)	

2.2.16 CEC_RoofConstructionTypeTable

Field Heading	Value	Comments
SITEID		
TotalArea	Total roof area (SF)	Basis
ConcDeckArea	Total pre-cast concrete deck roof area (SF)	
WoodJoistArea	Total roof area framed with wood joists (SF)	
MetalJoistArea	Total roof area framed with metal joists (SF)	

2.2.17 CEC_RoofUValueTable

Field Heading	**Value**	**Comments**
SITEID		
NetArea	Net roof area (SF)	Basis
AvgU-Value	U-value * net roof area	Btu-SF/hr-deg F

2.2.18 CEC_SkylightFrameTypeTable

Field Heading	Value	Comments
SITEID		
Total Skylight Area	Total skylight area (SF)	Basis
Std Metal	Total skylight area with standard metal frame (SF)	
Thermal Metal	Total skylight area with thermally broken metal frame (SF)	
Wood or Vinyl	Total skylight area with wood or vinyl frame (SF)	

The data from the CEC_SkylightFrameTypeTable is gathered from four queries. These queries gather the individual information in the above table.

- CEC_SkylightArea
- CEC_SkyStdMetal
- CEC_SkyThermalMetal
- CEC_SkyWoodVinyl

2.2.19 CEC_SkylightGlassTypeTable

Field Heading	Value	Comments
SITEID		
Total Area	Total skylight area (SF)	Basis
Clear Area	Total skylight area with clear glazing (SF)	
Reflective Area	Total skylight area with reflective glazing (SF)	
Tinted Area	Total skylight area with tinted glazing (SF)	

2.2.20 CEC_SkySCandUValueTable

Field Heading	Value	Comments
SITEID		
Total Skylight Area	Total skylight area (SF)	Basis
U-Value	U-Value * total skylight area	Btu/hr-deg F
SC	Shading coef. * total skylight area	Units of SF

The above table gets its data from the following two queries:

- The bottom query is CEC_SkylightValues. For every skylight in a particular site, it gathers the area, the u-value, the shading coefficient, the u-value*area, and the sc*area. If the u-value and/or the shading coefficient are not filled in, then the values are determined from the WinUoScLookup table.
- Next, the CEC_SkyAvgSum Subquery uses the CEC_SkylightValues to sum up the skylight area, the u-value area, and the shading coefficient area to get the average. The CEC_SkySCandUValue table uses this query to calculate the final results.

2.2.21 CEC_SkylightTotalAreaTable

Field Heading	Value	Comments
SITEID		
Floor Area	Total Building Floor Area (SF)	Basis
Skylight Area	Total skylight area (SF)	

2.2.22 CEC_WallConstructionTypeTable

Field Heading	Value	Comments
SITEID		
TotalArea	Total gross (including windows) wall area (SF)	Basis
BrickBrickArea	Total gross two layer brick wall area (SF)	Gross area includes windows
BrickConcArea	Total gross brick and concrete wall area (SF)	Gross area includes windows
BrickBlockArea	Total gross brick and concrete block wall area (SF)	Gross area includes windows
ConcFinishArea	Total gross finished concrete wall area (SF)	Gross area includes windows
BlockFinishArea	Total gross finished concrete block wall area (SF)	Gross area includes windows
WoodFrameArea	Total gross wood framed wall area (SF)	Gross area includes windows
MetalFrameArea	Total gross metal framed wall area (SF)	Gross area includes windows
CurtainWallArea	Total gross curtain wall area (SF)	Gross area includes windows
OpenArea	Total open area (SF)	Adjacent to conditioned space

2.2.23 CEC_WallUValueTable

Field Heading	Value	Comments
SITEID		
NetArea	Net wall area (SF)	Basis
AvgU-Value	U-value * net wall area	Btu-SF/hr-deg F

2.2.24 CEC_WindowFrameTypeTable

Field Heading	Value	Comments
SITEID		
Total Window Area	Total Window Area (SF)	Basis
Std Metal	Total window area with standard metal frames (SF)	
Thermal Metal	Total window area with thermally-broken metal frames (SF)	
Wood or Vinyl	Total window area with wood or vinyl frames (SF)	

The data from the CEC_WindowFrameTypeTable is gathered from four queries. These queries gather the individual information in the above table.

- CEC_WindowArea
- CEC_WinStdMetal

- CEC_WinThermalMetal
- CEC_WinWoodVinyl

2.2.25 CEC_WindowGlassTypeTable

Field Heading	Value	Comments
SITEID		
Total Window Area	Total Window Area (SF)	Basis
1 Pane Clear	Total window area with 1 pane clear glass(SF)	
1 Pane Reflective	Total window area with 1 pane reflective glass(SF)	
1 Pane Tinted	Total window area with 1 pane tinted glass(SF)	
2 Pane Clear	Total window area with 2 pane clear glass(SF)	
2 Pane Reflective	Total window area with 2 pane reflective glass(SF)	
2 Pane Tinted	Total window area with 2 pane tinted glass(SF)	
3 Pane Clear	Total window area with 3 pane clear glass(SF)	
3 Pane Reflective	Total window area with 3 pane reflective glass(SF)	
3 Pane Tinted	Total window area with 3 pane tinted glass(SF)	

2.2.26 CEC_WinUValueTable

Field Heading	Value	Comments
SITEID		
Total Window Area	Total Window Area (SF)	Basis
AvgU-Value	U-value * total window area	Btu-SF/hr-deg F

The CEC_WinUValue table gets its data from the following two queries:

- The bottom query is CEC_WinUValue Subquery. For every window in a particular site, it gathers the area, the u-value, and the u-value*area. If the u-value is not filled in, the values are determined from the WinUoScLookup table.
- Next, the CEC_WinUValueSum Subquery uses the CEC_WinUValue to sum up the window area, the u-value area, and to get the average. The CEC_WinUValue table uses this query to calculate the final results.

2.2.27 CEC_WinSCEastTable

Field Heading	Value	Comments
SITEID		
Area	Total East Window Area (SF)	Basis
Avg SCEast	East window shading coef. * east window area	Units of SF

- CEC_WinSCSumE Subquery - Sums up area and sc, and calculates the average sc.
- CEC_WinSCValueE Subquery – Gathers area, sc, and sc* area.

2.2.28 CEC_WinSCNorthTable

Field Heading	Value	Comments
SITEID		
Area	Total North Window Area (SF)	Basis
Avg SCNorth	North window shading coef. * north window area	Units of SF

- CEC_WinSCSumN Subquery - Sums up area and sc, and calculates the average sc.
- CEC_WinSCValueN Subquery – Gathers area, sc, and sc* area.

2.2.29 CEC_WinSCNETable

Field Heading	Value	Comments
SITEID		
NE Area	Total Northeast Window Area (SF)	Basis
Avg SC NEast	Northeast window shading coef. * northeast window area	Units of SF

- CEC_WinSCSumNE Subquery - Sums up area and sc, and calculates the average sc.
- CEC_WinSCValueNE Subquery – Gathers area, sc, and sc* area.

2.2.30 CEC_WinSCNWTable

Field Heading	Value	Comments
SITEID		
Area	Total Northwest Window Area (SF)	Basis
Avg SC NW	Northwest window shading coef. * northwest window area	Units of SF

- CEC_WinSCSumNW Subquery - Sums up area and sc, and calculates the average sc.
- CEC_WinSCValueNW Subquery – Gathers area, sc, and sc* area.

2.2.31 CEC_WinSCSouthTable

Field Heading	Value	Comments
SITEID		
Area	Total South Window Area (SF)	Basis
Avg SCSouth	South window shading coef. * south window area	Units of SF

- CEC_WinSCSumS Subquery - Sums up area, sc and calculates the average sc.
- CEC_WinSCValueS Subquery – Gathers area, sc, and sc* area.

2.2.32 CEC_WinSCSETable

Field Heading	Value	Comments
SITEID		
Area	Total Southeast Window Area (SF)	Basis
Avg SC SE	Southeast window shading coef. * southeast window area	Units of SF

- CEC_WinSCSumSE Subquery - Sums up area and sc, and calculates the average sc.
- CEC_WinSCValueSE Subquery – Gathers area, sc, and sc* area.

2.2.33 CEC_WinSCSWTable

Field Heading	Value	Comments
SITEID		
Area	Total Southwest Window Area (SF)	Basis
Avg SC SW	Southwest window shading coef. * southwest window area	Units of SF

- CEC_WinSCSumSW Subquery - Sums up area and sc, and calculates the average sc.
- CEC_WinSCValueSW Subquery – Gathers area, sc, and sc* area.

2.2.34 CEC_WinSCWestTable

Field Heading	Value	Comments
SITEID		
Area	Total West Window Area (SF)	Basis
Avg SCWest	West window shading coef. * west window area	Units of SF

- CEC_WinSCSumW Subquery - Sums up area and sc, and calculates the average sc.
- CEC_WinSCValueW Subquery – Gathers area, sc, and sc* area.

2.2.35 CEC_WindowTotalAreaTable

Field Heading	Value	Comments
SITEID		
Total Area	Total Window Area (SF)	Basis
N Area	Total North Window Area (SF)	
NE Area	Total Northeast Window Area (SF)	
E Area	Total East Window Area (SF)	
SE Area	Total Southeast Window Area (SF)	
S Area	Total South Window Area (SF)	
SW Area	Total Southwest Window Area (SF)	
W Area	Total West Window Area (SF)	
NW Area	Total Northwest Window Area (SF)	

2.2.36 CEC_CoolingEffPkgTable

Field Heading	Value	Comments
SITEID		
PkgAS	System EER * floor area served	Type A, small size range
PkgAM	System EER * floor area served	Type A, medium size range
PkgAL	System EER * floor area served	Type A, large size range
PkgAXL	System EER * floor area served	Type A, extra large size range
PkgBS	System EER * floor area served	Type B, small size range
PkgBM	System EER * floor area served	Type B, medium size range
PkgBL	System EER * floor area served	Type B, large size range
PkgBXL	System EER * floor area served	Type B, extra large size range
PkgCS	System EER * floor area served	Type C, small size range
PkgCM	System EER * floor area served	Type C, medium size range
PkgCL	System EER * floor area served	Type C, large size range
PkgCXL	System EER * floor area served	Type C, extra large size range
PkgDS	System EER * floor area served	Type D, small size range
PkgDM	System EER * floor area served	Type D, medium size range
PkgDL	System EER * floor area served	Type D, large size range
PkgDXL	System EER * floor area served	Type D, extra large size range

System type A: Single Package Rooftop AC, Single Package Rooftop Heat Pump, Split System AC, Split System Heat Pump, or Dual Fuel Heat Pump, without evaporative condenser.
System type B: Any units of system type A, with evaporative condenser.
System type C: Packaged Terminal AC, Packaged Terminal HP, Window/Wall AC Unit, Window/Wall HP
System type D: Water Loop Heat Pump

Size range small: 0 < ton <= 5.4
Size range medium: 5.4 < ton <= 11.25
Size range large: 11.25 < ton <= 63.3
Size range extra large: ton > 63.3

2.2.37 CEC_CoolingEffBasisPkgTable

Field Heading	Value	Comments
SITEID		
PkgAS	Floor area served (SF)	Basis for type A, small size range
PkgAM	Floor area served	Basis for type A, medium size range
PkgAL	Floor area served	Basis for type A, large size range
PkgAXL	Floor area served	Basis for type A, extra large size range
PkgBS	Floor area served	Basis for type B, small size range
PkgBM	Floor area served	Basis for type B, medium size range
PkgBL	Floor area served	Basis for type B, large size range
PkgBXL	Floor area served	Basis for type B, extra large size range
PkgCS	Floor area served	Basis for type C, small size range
PkgCM	Floor area served	Basis for type C, medium size range
PkgCL	Floor area served	Basis for type C, large size range
PkgCXL	Floor area served	Basis for type C, extra large size range
PkgDS	Floor area served	Basis for type D, small size range
PkgDM	Floor area served	Basis for type D, medium size range
PkgDL	Floor area served	Basis for type D, large size range
PkgDXL	Floor area served	Basis for type D, extra large size range

System type A: Single Package Rooftop AC, Single Package Rooftop Heat Pump, Split System AC, Split System Heat Pump, or Dual Fuel Heat Pump, without evaporative condenser.
System type B: Any units of system type A, with evaporative condenser.
System type C: Packaged Terminal AC, Packaged Terminal HP, Window/Wall AC Unit, Window/Wall HP
System type D: Water Loop Heat Pump

Size range small: 0 < ton <= 5.4
Size range medium: 5.4 < ton <= 11.25
Size range large: 11.25 < ton <= 63.3
Size range extra large: ton > 63.3

2.2.38 CEC_CoolingEffChillTable

Field Heading	Value	Comments
SITEID		
ChillAS	System EER * floor area served	Type A, small size range
ChillAM	System EER * floor area served	Type A, medium size range
ChillAL	System EER * floor area served	Type A, large size range
ChillBS	System EER * floor area served	Type B, small size range
ChillBM	System EER * floor area served	Type B, medium size range
ChillBL	System EER * floor area served	Type B, large size range
ChillCS	System EER * floor area served	Type C, small size range
ChillCM	System EER * floor area served	Type C, medium size range
ChillCL	System EER * floor area served	Type C, large size range
ChillDS	System EER * floor area served	Type D, small size range
ChillDM	System EER * floor area served	Type D, medium size range
ChillDL	System EER * floor area served	Type D, large size range

Chiller type A: Water cooled electric chiller
Chiller type B: Air cooled electric chiller
Chiller type C: Water cooled gas fired chiller
Chiller type D: Air cooled gas fired chiller

Size range small: 0 < ton <= 150
Size range medium: 150 < ton <= 300
Size range large: ton > 300

2.2.39 CEC_CoolingEffBasisChillTable

Field Heading	Value	Comments
SITEID		
ChillAS	Floor area served (SF)	Basis for type A, small size range
ChillAM	Floor area served	Basis for type A, medium size range
ChillAL	Floor area served	Basis for type A, large size range
ChillBS	Floor area served	Basis for type B, small size range
ChillBM	Floor area served	Basis for type B, medium size range
ChillBL	Floor area served	Basis for type B, large size range
ChillCS	Floor area served	Basis for type C, small size range
ChillCM	Floor area served	Basis for type C, medium size range
ChillCL	Floor area served	Basis for type C, large size range
ChillDS	Floor area served	Basis for type D, small size range
ChillDM	Floor area served	Basis for type D, medium size range
ChillDL	Floor area served	Basis for type D, large size range

2.2.40 CEC_HeatingEffPkgTable

Field Heading	Value	Comments
SITEID		
PkgAS	Heating COP * floor area served	Type A, small size range
PkgAM	Heating COP * floor area served	Type A, medium size range
PkgAL	Heating COP * floor area served	Type A, large size range
PkgAXL	Heating COP * floor area served	Type A, extra large size range
PkgCS	Heating COP * floor area served	Type C, small size range
PkgCM	Heating COP * floor area served	Type C, medium size range
PkgCL	Heating COP * floor area served	Type C, large size range
PkgCXL	Heating COP * floor area served	Type C, extra large size range
PkgDS	Heating COP * floor area served	Type D, small size range
PkgDM	Heating COP * floor area served	Type D, medium size range
PkgDL	Heating COP * floor area served	Type D, large size range
PkgDXL	Heating COP * floor area served	Type D, extra large size range

System type A: Single Package Rooftop Heat Pump, Split System Heat Pump, or Dual Fuel Heat Pump
System type C: Packaged Terminal HP, Window/Wall HP
System type D: Water Loop Heat Pump

Size range small: 0 < ton <= 5.4
Size range medium: 5.4 < ton <= 11.25
Size range large: 11.25 < ton <= 63.3
Size range extra large: ton > 63.3

2.2.41 CEC_HeatingEffBasisPkgTable

Field Heading	Value	Comments
SITEID		
PkgAS	Floor area served (SF)	Basis for type A, small size range
PkgAM	Floor area served	Basis for type A, medium size range
PkgAL	Floor area served	Basis for type A, large size range
PkgAXL	Floor area served	Basis for type A, extra large size range
PkgCS	Floor area served	Basis for type C, small size range
PkgCM	Floor area served	Basis for type C, medium size range
PkgCL	Floor area served	Basis for type C, large size range
PkgCXL	Floor area served	Basis for type C, extra large size range
PkgDS	Floor area served	Basis for type D, small size range
PkgDM	Floor area served	Basis for type D, medium size range
PkgDL	Floor area served	Basis for type D, large size range
PkgDXL	Floor area served	Basis for type D, extra large size range

2.2.42 CEC_HVACControlTable

Field Heading	Value	Comments
SITEID		
FloorArea	Total Building Floor Area (SF)	Basis
3a	Conditioned area under control mode	Condenser water setpoint fixed
3b	Conditioned area under control mode	Condenser water setpoint reset on outdoor temperature
5	Conditioned area under control mode	DDC of supply air flow rate based on terminal flow
10	Conditioned area under control mode	Optimum fan startup
13a	Conditioned area under control mode	Supply air temperature reset based on outside temperature
13b	Conditioned area under control mode	Supply air temperature reset based on zone temperature
14	Conditioned area under control mode	Outdoor air control with CO2 sensor

2.2.43 CEC_CoolingSizingTable

Field Heading	Value	Comments
SITEID		
Area	Total Cooling Conditioned Floor Area (SF)	Basis
Cooling Capacity	Cooling capacity for building	
Cooling Ratio	Cooling Sizing Ratio * Area	Sizing ratio times conditioned SF

2.2.44 CEC_EUITable

Field Heading	Value	Comments
SITEID		
Total Floor Area	Total Building Floor Area (SF)	Basis
Building KWH	Annual whole building kWH	Units are kWH
Heating	Annual building heating	Units are kWH
Cooling	Annual building cooling	Units are kWH
Lighting	Annual building lighting	Units are kWH
Fan	Annual building fans	Units are kWH
Refrigeration	Annual building refrigeration	Units are kWH
Other	Annual residual	Units are kWH

2.3 Site-Level Data Tables

The data are stored in a series of relational tables. The best way to understand how the tables relate is to view the *Relationships* screen within Access. There are 50 tables holding the site-level data. The table names and descriptions are shown below.

Table	Description
Ccentair	Central air handlers

Cchiller	Chillers
CheatSys	Central heating systems
Comment	General comments on the site
Comng1	Empty, delete?
Comng2	HVAC commissioning comments
cPHVACSY	Packaged HVAC equipment
cPump	Circulation pumps
cTower	Cooling towers
Ctrl1	Building controls
cWalls	Exterior walls and roofs
cWindows	Windows
ExtMiscSched	Schedules for exterior miscellaneous equipment
foodsvc	Food service equipment
foodsvc2	Kitchen hoods
GenSup	Supplemental data regarding onsite electric production
hotwat1	Service hot water
Incidents	General information regarding site visit
intview1	**Master site table.** Contains interview question data.
lite_ext	Exterior lighting
meter1	Electric meter numbers
Misc1	Exterior miscellaneous equipment
onsite_contacts	Site contact names
Pools	Swimming pools
refr_Cnd	Refrigeration condensers
RefrCmp	Refrigeration compressors
Refrig	Refrigerated casework
sched1	Operational schedules
sched2	Operational schedules
SchFnCl	Fan schedules for closed day type
SchFnFul	Fan schedules for full day type
SchFnLt	Fan schedules for light day type
SchTStat	Thermostat schedules
SiteArea	Building (operational) area definitions
sol_DHW	Solar hot water systems
Syszone	Assignment table, relating systems to zones
TbSpEq	Interior plug/process loads
TbSpLt	Interior lighting
TbSpTypEq	“Typical” plug load equipment
TbSpTypEqRef	“Typical” space definitions for cataloging plug loads
TESsup	Supplemental data regarding thermal energy storage
Tracking	Site disposition information used during data collection
Trnsfrmr	Interior electric transformers
Tspace	General “space” characteristics
Version	Version number of Survey-IT database
Vsystems	Listing of DOE-2 virtual systems defined by surveyors
vt_Trns	Vertical transportation (elevators, escalators)
zones1	General “zone” information
zones2	Zonal heating system information

The remainder of this section describes the site-level table fields and relationships. The descriptions were generated using the MS Access automatic documentation tool.

2.3.1 Table: ccentair

Record Count: 511

Description: Central air handling units

Name	Type	Description
SITEID	Text	RLW Site ID Number
CCN_NO	Number (Double)	Air handler ID number
CCNT24	Text	Air handler Name
CCNLOC	Text	Air handler location
CCNQTY	Number (Double)	Quantity
CCNQTYM	Number (Double)	Energy-efficient duct-system measure (W/CFM) ID flag
CCNTYPE	Number (Double)	Air handler type code 1: Single duct 2: Dual duct 3: Multizone
CCNEVAP	Number (Double)	Evaporative section type code 0: None 1: Direct 2: Indirect 3: Ind-Dir
CCNEVAPM	Number (Double)	Evaporative system measure ID flag
CCNFTYPE	Number (Double)	Fan type code 0: DK 1:Constant Volume 2: Two-Speed 3: Variable Volume
CCNFCON	Number (Double)	Fan control code 0: DK 1: Constant Volume 2: Cycles 3: VSD 4:
CCNFCONM	Number (Double)	Fan control measure ID flag
CCNFLOW	Number (Double)	AHU Supply CFM
CCNSHP	Number (Double)	Supply Fan motor hp
CCNSHPM	Number (Double)	Supply fan motor measure ID flag
CCNSRPM3	Number (Double)	Supply fan motor efficiency
CCNRHP		Number (Double) Return fan motor hp
CCNRRPM3	Number (Double)	Return fan motor efficiency
CCNRHPM	Number (Double)	Return fan motor measure ID flag
CCNOA	Number (Double)	Economizer control code 1: Fixed 2: Temperature 3:
CCNOAM	Text	Economizer measure flag
C_OA	Number (Double)	Outdoor Air Fraction
CNOTE	Text	AHU Notes field
Vsys	Text	Virtual system assignment
zC_OARQD	Number (Double)	Not Used
zCENQTY	Number (Double)	Not Used
zCENQTYM	Number (Double)	Not Used
zCENTYPE	Number (Double)	Not Used
zCENEVAP	Number (Double)	Not Used
zCENEVAPM	Number (Double)	Not Used
zCENFTYPE	Number (Double)	Not Used
zCENFCON	Number (Double)	Not Used
zCENFCONM	Number (Double)	Not Used
zCENFLOW	Number (Double)	Not Used
zCENSHP	Number (Double)	Not Used
zCENSHPM	Number (Double)	Not Used
zCENSMOT	Number (Double)	Not Used
zCENSRPM3	Number (Double)	Not Used
zCENSRPM1	Number (Double)	Not Used
zCCNSRPM1	Number (Double)	Not Used
zCENSRPM2	Number (Double)	Not Used
zCCNSRPM2	Number (Double)	Not Used
zCENRHP	Number (Double)	Not Used
zCENRHPM	Number (Double)	Not Used
zCENRMOT	Number (Double)	Not Used
zCCNRMOT	Number (Double)	Not Used
zCENRRPM1	Number (Double)	Not Used
zCCNRRPM1	Number (Double)	Not Used
zCENRRPM2	Number (Double)	Not Used
zCCNRRPM2	Number (Double)	Not Used
zCENRRPM3	Number (Double)	Not Used
zCENOA		Number (Double) Not Used
zCENOAM	Text	Not Used
zSRVMORE	Text	Not Used
zCEN_NO	Number (Double)	Not Used
zCENT24		Text Not Used
zCENLOC	Text	Not Used

Relationships

vSystems		ccentair
siteID	1 to many	SITEID
vSys	1 to many	vsys

2.3.2 Table: cchiller

Record Count: 230
Description: Chillers

Name	Type	Description
SITEID	Text	RLW Site ID Number
CCH_NO	Number (Double)	Chiller ID number
SRVMORE	Text	Flag to indicate matchup between chiller and surveyed space
CCHT24	Text	Chiller name
CCHLOC	Text	Chiller location
CCHQTY	Number (Double)	Chiller quantity
CCHQTYM	Number (Double)	Chiller measure flag
CCHMANU	Text	Chiller manufacturer
CCHMOD	Text	Chiller model number
CCHSER	Text	Chiller serial number Only required when greater than 250 tons
CCHSIZE	Number (Double)	Chiller size (tons)
CCHTYPE	Number (Double)	Chiller type code 1 : Electric Reciprocating Chiller 2 : Electric Screw Chiller 3 : Electric Centrifugal Chiller 4 : Absorption Chiller 5 : Gas Engine Chille
CCHEFFC	Number (Double)	Chiller rated efficiency (kW/ton)
CCHFANHP	Number (Double)	Air-cooled condenser fan hp (air cooled chillers w/ integral condenser on
CNOTE	Text	Chiller notes
CT24EFF	Number (Double)	Not used
CMSTRYCHL	Yes/No	Flag for invalid make/model number
CISGT250	Yes/No	Not used

Relationships

intview1		cchiller
SITEID	1 to many	SITEID

2.3.3 Table: cHeatSys

Record Count: 253
Description: Central boilers

Name	Type	Description
SITEID	Text	RLW Site ID Number
CHE_NO	Number (Double)	Heating system ID number
CHET24	Text	Heating system name
CHELOC	Text	Heating system location
CHEQTY	Number (Double)	Equipment quantity
CHEQTYM	Number (Double)	Measure ID flag
CHEMANU	Text	Manufacturer
CHEMOD	Text	Model number
cCap	Number (Single)	Heating output capacity
CHETYPE	Number (Double)	Equipment type code
CHEFUEL	Number (Double)	Heating fuel
CNOTE	Text	Heating system notes
zCHEFANHP	Number (Double)	Draft fan hp
hCapUnit	Number (Integer)	Heating capacity units (kBtu/hr or kW)

Relationships

intview1		cHeatSys
SITEID	1 to many	SITEID

2.3.4 Table: CityList

Record Count: 615
Description: List of cities surveyors can assign site to for energy analysis

Name	Type	Description
City Name	Text	City name closest to building site
Elevation	Number (Double)	Elevation (ft)
Climate Zone	Number (Double)	CEC climate zone
C Dry Bulb	Number (Double)	Summer design dry bulb temperature (deg F)
C Wet Bulb	Number (Double)	Summer design wet bulb temperature (deg F)
Latitude	Number (Double)	Degrees N latitude

2.3.5 Table: Comment

Record Count: 232
Description: General comments

Name	Type	Description
SiteID	Text	
Comments	Memo	

Relationships

intview1		Comment
SITEID	1 to 1	SiteID

2.3.6 Table: cPHVACSY

Record Count: 2552
Description: Packaged rooftop units, both A/C and HP

Name	Type	Description
SITEID	Text	RLW Site ID
cac_no	Number (Integer)	Unit ID number
cact24	Text	Unit name
CACLOC	Text	Unit location
CACQTY	Number (Double)	Quantity
CACQTYM	Number (Double)	Measure flag
CACTYPE	Number (Double)	Unit type code 1:Pkg Rooftop AC, 2:Pkg Rooftop Heat Pump, 3:Split AC, 4:Split Heat Pump, 5:PTAC, 6:PTHP, 7:Window/Wall AC, 8:Window/Wall HP, 9:Water Loop Heat Pump, 10:Dual Fuel Heat Pump, 11:Evap System
CACMANU	Text	Manufacturer
CACMOD	Text	Model number of unit (outdoor section only if split system)
cMod_In	Text	Model number of indoor section if split system
CACCCAP	Number (Double)	Output capacity at ARI rating conditions (ton)
CACEFFC	Number (Double)	Cooling efficiency at ARI rating conditions (EER or SEER)
CACEER	Number (Double)	Cooling efficiency units (EER or SEER)
CACFUEL	Number (Double)	Heating fuel
CACHCAP	Number (Double)	Heating capacity (kBtu/hr) (at 47 OAT if heat pump)
CACCON	Number (Double)	Condenser type: 0;DK; 1;Evap. Cnd.; 2;Dry Air; 3;Pad pre-cooler
CACCONM	Number (Double)	Condenser measure flag
CACESYS	Number (Double)	Evaporative section type code 0: None; 1: Direct; 2: Indirect; 3: Ind-Dir; 4: None
CACESYSM	Number (Double)	Evaporative section measure
CACFTYPE	Number (Double)	Fan type code 0: DK; 1: Constant Volume; 2: VAV; 3: VVT
CACFCON	Number (Double)	Fan control code 0: DK; 1: Constant Volume; 2: Cycles; 3: VSD; 4 Discharge Dampers; 5: Inlet Van
CACFCONM	Number (Double)	Fan control measure fla
CACFANHP	Number (Double)	Supply fan hp
CACCONHP	Number (Double)	Not used
CACRETHP	Number (Double)	Return fan hp
CACOA	Number (Double)	Economizer control code 1: Fixed; 2:Temperature; 3: Enthalpy; 4: DK
CACOAM	Number (Double)	Economizer measure flag
CSUPCFM	Number (Long)	Supply fan CFM
C_HCOP	Number (Double)	Heat pump rated efficiency at 47 OAT
m_hcp	Number (Integer)	Heat pump measure flag
htEfUnit	Number (Integer)	Heat pump efficiency units (COP, HSPF)
C_OA	Number (Double)	Packaged system notes
CNOTE	Text	Packaged system notes
CMSTRYUNIT	Yes/No	Not used
vsys	Text	Virtual system assignment
TwrCode	Number (Integer)	Cooling tower assignment (for water loop heat pumps only)

Relationships

vSystems		cPHVACSY
siteID	1 to many	SITEID
vSys	1 to many	vsys

2.3.7 Table: cPump

Record Count: 840
Description: Circulation pumps

Name	Type	Description
SITEID	Text	RLW Site ID
CPMP_NO	Number (Double)	Pump ID
cPmpNm	Text	Pump Name
CPMPHP	Number (Double	Pump motor hp
CPMPRPM3	Number (Double)	Pump motor efficiency
mP_Eff	Number (Integer)	motor efficiency measure flag
CPMPCTRL	Number (Double)	Pump control code: 1:CV; 2:2-spd; 3:VSD; 4:DK
mP_ctrl	Number (Integer)	Pump control measure flag
CPMPLOC	Text	Pump location
CPMPLOOP	Number (Double)	Pump loop flag: 1:Chilled water, 2:Condenser water, 3:Hot water
CPMPUSE	Number (Double)	Loop type flag: 1:primary; 2:secondary
CNOTE	Text	Pump notes
zCPMPTYPE	Number (Double)	not used
zCPMPRPM1	Number (Double)	not used
zCPMPRPM2	Number (Double)	not used
zCPMPM	Number (Double)	not used
SRVMORE	Text	not used
M94	Number (Integer)	Generic measure flag from '94 PGE/SCE survey data

Relationships

intview1		cPump
SITEID	1 to many	SITEID

2.3.8 Table: cTower

Record Count: 153
Description: Cooling towers

Name	Type	Description
SITEID	Text	RLW Site ID
CTW_NO	Number (Double)	Tower ID
CTWT24	Text	Tower name
CTWLOC	Text	Tower location
CTWQTY	Number (Double)	Tower quantity
CTWQTYM	Number (Double)	Tower measure flag
CTWMANU	Text	Tower manufacturer
CTWMOD	Text	Tower model number
CTWFANHP	Number (Double)	Tower fan hp
CTWCTRL	Number (Double)	Tower fan control code 1:1 spd; 2:2 spd; 3:VSD; 4:Pony
CTWCTRLM	Number (Double)	Tower fan control measure flag
CTWPUMP	Number (Double)	Tower pump hp
CNOTE	Text	Tower notes
RateCap	Number (Single)	Heat rejection capacity at rated conditions
RateCond	Number (Single)	Rated Condensing Temp
RambWB	Number (Single)	Rated Ambient Wet Bulb
RambDB	Number (Single)	Rated Ambient Dry Bulb

Relationships

intview1		cTower
SITEID	1 to many	SITEID

2.3.9 Table: Ctrl1

Record Count: 701
Description: HVAC controls.

Name	Type	Description
siteID	Text	RLW site ID
ctrlType	Number (Integer)	Control code 1:A/C sched; 2:Chill W reset; 3:Cond water temp; 4:Daylight controls; 5:DDC VAV box; 6:Demand limit; 7:Economizer; 8:Lighting occup \ sensor; 9:Lighting Sweeps; 10:Opt. Start; 11:Other; 12:Room setpoint; 13:Supply air reset; 14:Ventilation rate
CtrlMode	Text	Control mode: 2a:based on zone temp, 2b: based on outdoor temp, 3a: fixed, 3b: OAT reset, 7a: temperature, 7b: enthalpy, 13a: based on outside temp, 13b: based on zone temp
EMS	Yes/No	EMS flag
Measure	Yes/No	Measure ID flag

Relationships

intview1		Ctrl1
SITEID	1 to many	siteID

2.3.10 Table: cWalls

Record Count: 7914
Description: Exterior walls

Name	Type	Description
SITEID	Text	RLW site ID
ZONE	Number (Integer)	Zone ID
cst24	Text	Wall name
CSTYPE	Number (Double)	Wall type code 1: Brick & brick; 2: Brick & conc; 3: Brick & block; 4: Concrete & Finish; 5: Block & finish; 6: Wood frame; 7: Metal frame; 8:Curtain wall; 9: Open; 10: ROOF-Conc deck; 11: ROOF-wood joist; 12: ROOF-metal joist
CSR	Number (Double)	Insulation R-value
8cUval	Number (Single)	Overall U-value
cHC	Number (Single)	Assembly heat capacity
CSORI	Text	Compass Orientation: N, NE, E , SE, S, SW, W, NW, H (horizontal)
CSHGHT	Number (Double)	Gross Wall height (ft) (includes windows)
CSWDTH	Number (Double)	Gross Wall width (ft) (includes windows)
CSM	Yes/No	Measure ID flag
CNOTE	Text	Wall notes

Relationships

zones1		cWalls
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

2.3.11 Table: cWindows

Record Count: 6317
Description: Window s

Name	Type	Description
SITEID	Text	RLW site ID
ZONE	Number (Integer)	Zone ID
CWT24	Text	Window name
CWTYPE	Text	Glass type code C:Clear; R:Reflective; T:Tinted
CWSC	Number (Single)	Window shading coefficient
cWinuVAl	Text	Window U-value
CWORI	Text	Window orientation: N, NE, E, SE, S, SW, W, NW, H (horizontal)
CWHGHT	Number (Double)	Window height (ft)
CWWDTH	Number (Double)	Window width (ft)
CWQTY	Number (Integer)	Window quantity
CWISHAD	Text	Interior shading type code 1:None; 2:Blinds; 3:Light shds/drps; 4:Dark shds/drps
cPctShd	Number (Single)	Overall window shading (%)
CWOHOFF	Number (Double)	Fixed overhang offset (ft)
CWOHPROJ	Number (Double)	Fixed overhang projection (ft)
CWM	Number (Integer)	Measure ID flag
CNOTE	Text	Window notes
Panes	Number (Integer)	Number of panes
Frame	Text	Frame type code S: Std. Metal; T: Thermal Break Metal; W: Wood or Vinyl
zzz_CWESHAD	Number (Long)	

Relationship

zones1		cWindows
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

2.3.12 Table: ExtMiscSched

Record Count: 58
Description: Schedule data for miscellaneous exterior electric loads

Name	Type	Description
SITEID	Text	RLW Site ID number
emefl01	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 1
emefl02	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 2
emefl03	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 3
emefl04	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 4
emefl05	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 5
emefl06	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 6
emefl07	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 7
emefl08	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 8
emefl09	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 9
emefl10	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 10
emefl11	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 11
emefl12	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 12
emefl13	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 13
emefl14	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 14
emefl15	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 15
emefl16	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 16

emefl17	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 17
emefl18	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 18
emefl19	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 19
emefl20	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 20
emefl21	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 21
emefl22	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 22
emefl23	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 23
emefl24	Number (Double)	Full occupancy exterior miscellaneous load schedule hour 24
Name	**Type**	**Description**
emelt01	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 1
emelt02	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 2
emelt03	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 3
emelt04	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 4
emelt05	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 5
emelt06	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 6
emelt07	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 7
emelt08	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 8
emelt09	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 9
emelt10	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 10
emelt11	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 11
emelt12	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 12
emelt13	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 13
emelt14	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 14
emelt15	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 15
emelt16	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 16
emelt17	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 17
emelt18	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 18
emelt19	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 19
emelt20	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 20
emelt21	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 21
emelt22	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 22
emelt23	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 23
emelt24	Number (Double)	Light occupancy exterior miscellaneous load schedule hour 24
emecl01	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 1
emecl02	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 2
emecl03	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 3
emecl04	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 4
emecl05	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 5
emecl06	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 6
emecl07	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 7
emecl08	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 8
emecl09	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 9
emecl10	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 10
emecl11	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 11
emecl12	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 12
emecl13	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 13
emecl14	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 14
emecl15	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 15
emecl16	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 16
emecl17	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 17
emecl18	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 18
emecl19	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 19
emecl20	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 20
emecl21	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 21
emecl22	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 22
emecl23	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 23
emecl24	Number (Double)	Closed occupancy exterior miscellaneous load schedule hour 24

Relationships

intview1		**ExtMiscSched**
SITEID	1 to 1	siteid

2.3.13 Table: foodsvc

Record Count: 2030
Description: Food service equipment

Name	Type	Description
SITEID	Text	RLW site ID
ZONE	Number (Integer)	Zone ID
K1QTY	Number (Double)	Equipment quantity
K1TYPE	Number (Double)	Equipment type code
K1FUEL	Number (Double)	Fuel type code 1: Electric; 2:Other; 3:DK; 4:none
K1KW	Number (Double)	Electric equip nameplate kW
K1VOLT	Number (Double)	Electric equip nameplate V
K1AMP	Number (Double)	Electric equip nameplate amps
K1KBTUH	Number (Double)	Gas equip nameplate input rating (kBtu/hr)
K1SIZE	Number (Double)	Trade size
K1HOOD	Number (Double)	Hood ID code

Relationships

keyEQfs		foodsvc
CodeEQfs		K1TYPE

zones1		foodsvc
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

zones1	foodsvc	
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

2.3.14 Table: foodsvc2

Record Count: 290
Description: Kitchen hoods

Name	Type	Description
SITEID	Text	RLW site ID
ZONE	Number (Integer)	Zone ID
H1TYPE	Number (Double)	Hood type code 0:DK; 1:Canopy; 2:Island; 3:Backshelf
H1SIZE	Number (Double)	Hood face area (SF)
H1FLOW	Number (Double)	Hood flow rate (CFM)
H1HP	Number (Double)	Makeup and Exhaust fan hp
H1AIR	Number (Double)	Makeup air source: 0: DK; 1: Conditioned MUA; 2: Unconditioned

Relationships

zones1		foodsvc2
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

2.3.15 Table: GenSup

Record Count: 3
Description: General notes on supplemental power generation.

Name	Type	Description
SITEID	Text	RLW Site ID
GenNotes	Memo	On site power generation notes

Relationships

intview1		GenSup
SITEID	1 to 1	SITEID

2.3.16 Table: hotwat1

Record Count: 812
Description: Water heating equipment.

Name	Type	Description
SITEID	Text	RLW site ID
wh1loc	Text	Water heater location
WH1TYPE	Number (Double)	Water heater type code 1: Storage; 2 : Instantaneous; 3 : Heat Pump
WH1CAP	Number (Double)	Water heater storage tank capacity (gal)
WH1FUEL	Number (Double)	Water heater fuel code 1: Electric; 2:Other; 3:DK; 4:none
WH1HP	Number (Double)	Service hot water recirc pump hp
WH1M	Number (Double)	Measure flag

Relationships

intview1		hotwat1
SITEID	1 to many	SITEID

2.3.17 Table: intview1

Record Count: 812
Description: Master table. All data related to this table via *SiteID* field. Contains a wide variety of building-wide data including some building wide schedules. All data cascades from this table, so if a record is deleted from this table, all references to the record will be deleted from the remaining tables.

Name	Type	Description
SITEID	Text	8
Name1	Text	Site Name
drr cec T24 type	Number (Integer)	Building type used in characteristic analysis
Name2	Text	Site Name
Address1	Text	Site Address
city	Text	Site City
SURVEYOR	Text	Surveyor name
Engineer	Text	Engineer name
qCEC_typ	Number (Integer)	Building type code 1: Large Office; 2 Small Office; 3: Restaurants; 4: Large Retail; 5: Small Retail; 6:Food Stores; 7: Refrg Whses; 8: Non-Refrg Whses; 9:Elem/Scndry Schools; 10: Colleges, Universities; 11:Hospitals; 12:Medical Clinic; 13:Hotel/Motel; 14:Misc.
qFlr_sf	Number (Long)	Total building SF
qnew_eq	Yes/No	Whole building flag (new const = total)
qnew_sf	Number (Long)	New construction SF

qChgs	Memo	Any changes in overall energy use since built
qTnt_cnt	Number (Integer)	# of tenants

Name	Type	Description
qTnt_mtr	Yes/No	Tenant metering flag (Do the majority of tenants have their own electric meters) 0:DK; 1:Component; 2:Overall Envelope; 3:Performance
t24mech	Number (Integer)	Title 24 MECH compliance path code 0:DK; 1:Prescriptive
t24ltg	Number (Integer)	Title 24 LTG compliance path code 0:DK; 1:Complete Building; 2:Area Category; 3:Tailored; 4:Performance
qRfCtrl1	Text	Not used
qRfCtrl2	Text	Not used
Q1	Number (Double)	Number of areas in building
Q2AREA1	Text	Not used
Q2AREA2	Text	Not used
Q2AREA3	Text	Not used
Q2AREA4	Text	Not used
Q2AREA5	Text	Not used
Q38	Number (Double)	Exterior lighting control type code 1:Time Clock; 2:Photocell; 3:Both; 4:Neither; 5:Don't Know
Q401	Number (Double)	Exterior lighting schedule under time clock control: hour 1
Q402	Number (Double)	Exterior lighting schedule under time clock control: hour 2
Q403	Number (Double)	Exterior lighting schedule under time clock control: hour 3
Q404	Number (Double)	Exterior lighting schedule under time clock control: hour 4
Q405	Number (Double)	Exterior lighting schedule under time clock control: hour 5
Q406	Number (Double)	Exterior lighting schedule under time clock control: hour 6
Q407	Number (Double)	Exterior lighting schedule under time clock control: hour 7
Q408	Number (Double)	Exterior lighting schedule under time clock control: hour 8
Q409	Number (Double)	Exterior lighting schedule under time clock control: hour 9
Q4010	Number (Double)	Exterior lighting schedule under time clock control: hour 10
Q4011	Number (Double)	Exterior lighting schedule under time clock control: hour 11
Q4012	Number (Double)	Exterior lighting schedule under time clock control: hour 12
Q4013	Number (Double)	Exterior lighting schedule under time clock control: hour 13
Q4014	Number (Double)	Exterior lighting schedule under time clock control: hour 14
Q4015	Number (Double)	Exterior lighting schedule under time clock control: hour 15
Q4016	Number (Double)	Exterior lighting schedule under time clock control: hour 16
Q4017	Number (Double)	Exterior lighting schedule under time clock control: hour 17
Q4018	Number (Double)	Exterior lighting schedule under time clock control: hour 18
Q4019	Number (Double)	Exterior lighting schedule under time clock control: hour 19
Q4020	Number (Double)	Exterior lighting schedule under time clock control: hour 20
Q4021	Number (Double)	Exterior lighting schedule under time clock control: hour 21
Q4022	Number (Double)	Exterior lighting schedule under time clock control: hour 22
Q4023	Number (Double)	Exterior lighting schedule under time clock control: hour 23
Q4024	Number (Double)	Exterior lighting schedule under time clock control: hour 24
Q42	Number (Double)	Window shading occupant behavior code: 1:Always open; 2:Always closed 3:Operated to control comfort; 4:Open only when occupied
Q56SET	Number (Double)	Cooling supply air temperature setpoint
Q56SETDK	Number (Double)	Not used
Q56AIR	Number (Double)	Not used
Q56FAN	Number (Double)	Not used
Q58SET	Number (Double)	Chilled water set point temperature
Q58SETDK	Number (Double)	Not used
Q59MIN	Number (Double)	Not used
Q59DK	Number (Double)	Not used
Q59CON	Number (Double)	Not used
Q59FAN	Number (Double)	Not used
Q76	Number (Double)	Refrigeration remote condenser flag 1:Yes; 2:No
Q78ATEMP	Number (Double)	Refrigeration system minimum condensing temperature setpoint
RefrFhpM	Number (Long)	Floating head pressure measure code
zQ78ADK	Number (Double)	Not used
zQ78BTEMP	Number (Double)	Not used
zQ78BDK	Number (Double)	Not used
zQ78CTEMP	Number (Double)	Not used
zQ78CDK	Number (Double)	Not used
Q79A	Number (Double)	LT refrigeration system defrost type code 1: electric; 2: hot gas; 3: time off;

		4: DK
Q79B	Number (Double)	MT refrigeration system defrost type code 1: electric; 2: hot gas; 3: time off 4: DK
Q79C	Number (Double)	HT refrigeration system defrost type code 1: electric; 2: hot gas; 3: time off; 4: DK
METINFNA	Number (Double)	Meter information availability status flag
STATUS	Text	Not used

Name	Type	Description
NOTES	Memo	Not used
q57	Number (Integer)	Not used
Q60	Number (Integer)	Water side economizer flag 0: Don't know; 1:Yes; 2:No
Q61	Number (Integer)	Water side economizer type flag 1: Strainer Cycle; 2: Thermosyphon; 3:Plate HX; 4: Unknown
q62jan	Yes/No	Water side economizer enabled flag
q62feb	Yes/No	Water side economizer enabled flag
q62mar	Yes/No	Water side economizer enabled flag
q62apr	Yes/No	Water side economizer enabled flag
q62may	Yes/No	Water side economizer enabled flag
q62jun	Yes/No	Water side economizer enabled flag
q62jul	Yes/No	Water side economizer enabled flag
q62aug	Yes/No	Water side economizer enabled flag
q62sep	Yes/No	Water side economizer enabled flag
q62oct	Yes/No	Water side economizer enabled flag
q62nov	Yes/No	Water side economizer enabled flag
q62dec	Yes/No	Water side economizer enabled flag
q62dk	Yes/No	Water side economizer enabled flag
ht_off	Yes/No	Heating system lockout flag
htjan	Yes/No	Monthly heating lockout flag
htfeb	Yes/No	Monthly heating lockout flag
htmar	Yes/No	Monthly heating lockout flag
htapr	Yes/No	Monthly heating lockout flag
htmay	Yes/No	Monthly heating lockout flag
htjun	Yes/No	Monthly heating lockout flag
htjul	Yes/No	Monthly heating lockout flag
htaug	Yes/No	Monthly heating lockout flag
htsep	Yes/No	Monthly heating lockout flag
htoct	Yes/No	Monthly heating lockout flag
htnov	Yes/No	Monthly heating lockout flag
htdec	Yes/No	Monthly heating lockout flag
htdk	Yes/No	Monthly heating lockout flag
q43	Number (Integer)	Pool water temperature setpoint
q44	Number (Integer)	Pool cover used flag 0: No; 1: Yes
q45	Number (Integer)	Pool cover on time (24 hr clock)
q46	Number (Integer)	Pool cover off time (24 hr clock)
q47	Number (Integer)	Spa setpoint temperature
q48	Number (Integer)	Spa cover used flag 0: No; 1: Yes
q49	Number (Integer)	Spa cover on time (24 hr clock)
q50	Number (Integer)	Spa cover off time (24 hr clock)
Q3JAN	Number (Double)	Occupied fraction, Jan 1996
Q3FEB	Number (Double)	Occupied fraction, Feb 1996
Q3MAR	Number (Double)	Occupied fraction, Mar 1996
Q3APR	Number (Double)	Occupied fraction, Apr 1996
Q3MAY	Number (Double)	Occupied fraction, May 1996
Q3JUN	Number (Double)	Occupied fraction, Jun 1996
Q3JUL	Number (Double)	Occupied fraction, Jul 1996
Q3AUG	Number (Double)	Occupied fraction, Aug 1996
Q3SEP	Number (Double)	Occupied fraction, Sep 1996
Q3OCT	Number (Double)	Occupied fraction, Oct 1996
Q3NOV	Number (Double)	Occupied fraction, Nov 1996
Q3DEC	Number (Double)	Occupied fraction, Dec 1996
Q3bJAN	Number (Double)	Occupied fraction, Jan 1997
Q3bFEB	Number (Double)	Occupied fraction, Feb 1997
Q3bMAR	Number (Double)	Occupied fraction, Mar 1997
Q3bAPR	Number (Double)	Occupied fraction, Apr 1997
Q3bMAY	Number (Double)	Occupied fraction, May 1997
Q3bJUN	Number (Double)	Occupied fraction, Jun 1997
Q3bJUL	Number (Double)	Occupied fraction, Jul 1997
Q3bAUG	Number (Double)	Occupied fraction, Aug 1997

Q3bSEP	Number (Double)	Occupied fraction, Sep 1997
Q3bOCT	Number (Double)	Occupied fraction, Oct 1997
Q3bNOV	Number (Double)	Occupied fraction, Nov 1997
Q3bDEC	Number (Double)	Occupied fraction, Dec 1997
Q4JAN	Number (Double)	Conditioned fraction, Jan 1996
Q4FEB	Number (Double)	Conditioned fraction, Feb 1996

Name	Type	Description
Q4MAR	Number (Double)	Conditioned fraction, Mar 1996
Q4APR	Number (Double)	Conditioned fraction, Apr 1996
Q4MAY	Number (Double)	Conditioned fraction, May 1996
Q4JUN	Number (Double)	Conditioned fraction, Jun 1996
Q4JUL	Number (Double)	Conditioned fraction, Jul 1996
Q4AUG	Number (Double)	Conditioned fraction, Aug 1996
Q4SEP	Number (Double)	Conditioned fraction, Sep 1996
Q4OCT	Number (Double)	Conditioned fraction, Oct 1996
Q4NOV	Number (Double)	Conditioned fraction, Nov 1996
Q4DEC	Number (Double)	Conditioned fraction, Dec 1996
Q4bJAN	Number (Double)	Conditioned fraction, Jan 1997
Q4bFEB	Number (Double)	Conditioned fraction, Feb 1997
Q4bMAR	Number (Double)	Conditioned fraction, Mar 1997
Q4bAPR	Number (Double)	Conditioned fraction, Apr 1997
Q4bMAY	Number (Double)	Conditioned fraction, May 1997
Q4bJUN	Number (Double)	Conditioned fraction, Jun 1997
Q4bJUL	Number (Double)	Conditioned fraction, Jul 1997
Q4bAUG	Number (Double)	Conditioned fraction, Aug 1997
Q4bSEP	Number (Double)	Conditioned fraction, Sep 1997
Q4bOCT	Number (Double)	Conditioned fraction, Oct 1997
Q4bNOV	Number (Double)	Conditioned fraction, Nov 1997
Q4bDEC	Number (Double)	Conditioned fraction, Dec 1997
qVAV	Number (Integer)	VAV box type code 0:Std Boxes 1:Fan-powered Boxes 2:DK
EntStat	Number (Integer)	Data entry status code 0: In progress; 1:Entry complete DOE2 not running 3:Entry complete DOE2 runs
CalStat	Number (Integer)	Data entry status code 0:In progress; 1:Entry complete DOE2 not running; 3:Entry complete DOE2 runs
QCStat	Number (Integer)	QC status code 0:In progress 1:As-built model QC'd 2:Savings QC'd
BriefDsc	Text	Not used
Incent	Number (Integer)	Not used
Floors	Number (Integer)	Number of floors
Tlr_ltg	Memo	Tailored lighting compliance notes
Perf_frm	Memo	Performance compliance notes
StartDate	Date/Time	Survey start date
Start	Date/Time	Survey start time
FinishDate	Date/Time	Survey finish date
Finish	Date/Time	Survey finish time
DiffInfo	Memo	Contact info notes field
backup	Number (Integer)	Backup generator flag
pkReduc	Number (Integer)	Peak reduction flag
Cogen	Number (Integer)	Cogen system flag
Tes	Number (Integer)	Thermal energy storage flag
RfConPsi	Number (Single)	Minimum condensing pressure setpoint (psig)
ASHtCtrl	Number (Long)	Anti-sweat heater control on room RH flag
RhOff	Number (Single)	Room RH setpoint to turn AS heaters off
RhOn	Number (Single)	Room RH setpoint to turn AS heaters on
RfCoName	Memo	Refrigeration mechanic name
Stock	Number (Long)	Stocking practices code 1: Cases stocked randomly as needed; 2: Cases stocked on a regular schedule
StockTxt	Memo	Stocking practices comment field
rfgntLow	Text	Refrigerant type for LT system: HCFC-22, HFC-134a, R-502, R-11, R-12
rfgntMed	Text	Refrigerant type for MT system: HCFC-22, HFC-134a, R-502, R-11, R-12
rfgntHgh	Text	Refrigerant type for HT system: HCFC-22, HFC-134a, R-502, R-11, R-12
STM	Number (Long)	Potential short term monitoring site flag (-1: yes, 0: no)
WinNotes	Memo	Not used

Relationships

intview1		cchiller
SITEID	1 to many	SITEID

intview1		**cHeatSys**
SITEID	1 to many	SITEID
intview1		**Comment**
SITEID	1 to 1	SiteID
intview1		**Comng1**
SITEID	1 to 1	SiteID
intview1		**Comng2**
SITEID	1 to many	siteID
intview1		**cPump**
SITEID	1 to many	SITEID
intview1		**cTower**
SITEID	1 to many	SITEID
intview1		**Ctrl1**
SITEID	1 to many	siteID
intview1		**ExtMiscSched**
SITEID	1 to 1	siteid
intview1		**hotwat1**
SITEID	1 to many	SITEID
intview1		**Incidents**
SITEID	1 to many	siteID
intview1		**meter1**
SITEID	1 to many	SITEID
intview1		**Misc1**
SITEID	1 to many	SITEID
intview1		**pools**
SITEID	1 to many	SITEID
intview1		**refr_Cnd**
SITEID	1 to many	SITEID
intview1		**refrCmp**
SITEID	1 to many	SITEID
intview1		**SiteArea**
SITEID	1 to many	SiteID
intview1		**tbSpTypEqRef**
SITEID	1 to many	siteid
intview1		**Trnsfrmr**
SITEID	1 to many	SITEID
intview1		**vSystems**
SITEID	1 to many	siteID
intview1		**vt_Trns**
SITEID	1 to many	SITEID

intview1		**GenSup**
SITEID	1 to 1	SITEID
intview1		**lite_ext**
SITEID	1 to many	SITEID
intview1		**sol_DHW**
SITEID	1 to many	SITEID
intview1		**syszone**
SITEID	1 to many	SITEID
intview1		**TESsup**
SITEID	1 to 1	SITEID

2.3.18 Table: lite_ext

Record Count: 1513
Description: Exterior lighting.

Name	Type	Description
SITEID	Text	RLW Site ID
XL1FIXT	Text	Exterior lighting fixture code
XL1CNT	Number (Double)	Exterior lighting fixture count
zXL1CONT	Number (Double)	Not used
zXL1HRWK	Number (Double)	Not used
XL1M	Number (Double)	Not used, exterior lighting not a measure
STATUS	Text	Not used
Comment	Text	Not used
Location	Text	Exterior lighting fixture location

Relationships

intview1		**lite_ext**
SITEID	1 to many	SITEID

2.3.19 Table: meter1

Record Count: 955
Description: Electric meter information.

Name	Type	Description
SITEID	Text	RLW Site ID
METER1	Text	PG&E Meter number
TOU	Yes/No	TOU meter flag
SURMET1	Number (Double)	percentage of metered kWh for this meter that applies to surveyed
METLOC1	Text	Meter location
METINFNA	Number (Double)	Not used
NOTES	Memo	Meter number survey notes

Relationships

intview1		**meter1**
SITEID	1 to many	SITEID

2.3.20 Table: Misc1

Record Count: 376
Description Miscellaneous exterior electric loads.

Name	Type	Description
SITEID	Text	RLW Site ID
mc1code	Number (Integer)	Miscellaneous exterior equipment type code 1: Misc. Appliance; 2: Washer; 3 : Dryer; 4 : Cash Register 5 : Box Crusher; 6 : Gasoline pump; 7 : Air Compressor; 8 : Welder; 9 : Battery Charger; 10 : Machine Tools; 11 : Motor; 12 : Other
MC1DESC	Text	Miscellaneous exterior equipment description
MC1QTY	Number (Double)	Miscellaneous exterior equipment quantity
MC1KW	Number (Double)	Miscellaneous exterior equipment kW/unit
MC1HP	Number (Double)	Miscellaneous exterior equipment hp/unit
MC1HRWK	Number (Double)	Not used
dvrsty	Number (Single)	Not used
STATUS	Text	Comment field

Relationships

intview1		Misc1
SITEID	1 to many	SITEID

2.3.21 Table: pools

Record Count: 17
Description: Swimming pools

Name	Type	Description
SITEID	Text	RLW Site ID
PS1LOC	Number (Double)	Pool location
PS1SF	Number (Double)	Water surface area (SF)
PS1HP	Number (Double)	Pump hp
PS1HEAT	Yes/No	Heated pool flag
PH1LOC	Text	Pool heater location
PH1FUEL	Number (Double)	Pool heater fuel type 1:DK 2:Electric; 3:Other; 4:DK
PH1TYPE	Number (Double)	Solar pool heater type 0:DK 1:Glazed; 2:Unglazed
PH1SF	Number (Double)	Solar pool heater SF
PH1TILT	Number (Double)	Solar pool heater tilt (deg, 0=horizontal)
PH1HEAT	Number (Double)	Pool heat recovery flag 0:No -1:Yes
PH1M	Number (Double)	Pool heating measure flag 0:No -1:Yes

Relationships

intview1		pools
SITEID	1 to many	SITEID

2.3.22 Table: refr_Cnd

Record Count: 249
Description: Condensers for refrigeration systems

Name	Type	Description
SITEID	Text	RLW Site ID
RC1MAKE	Text	Condenser make
RC1MOD	Text	Condenser model
RC1TYPE	Number (Double)	Condenser type flag 0: DK; 1:Dry; 2: Evap Cnd or Tower; 3;:DK
RC1FANHP	Number (Double)	Condenser fan hp
RC1PUMP	Number (Double)	Condenser pump hp

RC1SPCON	Number (Double)	Condenser fan control flag 0: DK; 1:One speed; 2:Two speed; 3:VSD; 4:Pony motor
RC1M	Number (Double)	Oversized condenser measure flag
RCNote	Memo	Condenser notes
NameCnd	Text	Condenser name
CompServ	Text	Compressor rack served
RateCap	Number (Single)	Heat rejection capacity at rated conditions
RateCond	Number (Single)	Rated Condensing Temp
RambWB	Number (Single)	Rated Ambient Wet Bulb
RambDB	Number (Single)	Rated Ambient Dry Bulb
Mfan	Number (Integer)	Fan control measure flag
M94	Number (Integer)	Generic measure flag from '94 PGE/SCE survey data

Relationships

intview1		**refr_Cnd**
SITEID	1 to many	SITEID

2.3.23 Table: refrCmp

Record Count: 504
Description: Compressors for refrigeration systems

Name	Type	Description
SITEID	Text	RLW Site ID
ZONE	Number (Integer)	Zone containing refrigerated cases
CR1MAKE	Text	Compressor Make
CR1MOD	Text	Compressor Model No.
CR1COMP	Number (Double)	Compressor type code 1: Stand-alone; 2: Stand-alone w/ VSD; 3: Parallel equal Multiplex; 4: Parallel unequal multiplex
CR1HP	Number (Double)	Compressor motor hp
CR1TEMP	Text	Rack temperature L;M;H
CR1AHU	Yes/No	Rejects heat to building HVAC system flag
CR1M	Number (Double)	Compressor measure flag
NameRCmp	Text	Condenser name
sst	Number (Single)	Compressor Saturated Suction Temperature (SST)
EvTons	Number (Single)	Compressor capacity (tons)

Relationships

intview1		refrCmp
SITEID	1 to many	SITEID

2.3.24 Table: refrig

Record Count: 2869
Description: Refrigerated cases

Name	Type	Description
SITEID	Text	RLW SIte ID
ZONE	Number (Integer)	Zone containing refrigerated cases
RF1TYPE	Number (Double)	Refrigerated case type code
RF1QTY	Number (Double)	Quantity
RF1SIZE	Number (Double)	Refrigerated case size (LF) all except walk-in
sfWalkIn	Number (Long)	Walk-in and walk-in/reach-in size (SF)
RF1PROD	Number (Double)	Product displayed 1: Ice Cream; 2: Frozen Food; 3: Fresh Meat; 4 :Deli; 5: Dairy/Beverage; 6 :Produce
RF1LOC	Text	Condenser location Int:Inside Rem:Remote
doorCode	Number (Double)	Door type code
M_door	Number (Integer)	Door measure flag
RF1LTG	Text	Case display lighting code 1:Std; 2:Ebal; 3:T-8
M_ltg	Number (Integer)	Display lighting measure flag
EE_mtr	Number (Integer)	Energy efficient evaporator motor flag
M_mtr	Number (Integer)	Motor measure flag
RF1MANU	Text	Not used
M94	Number (Integer)	Generic measure flag from '94 PGE/SCE survey data

Relationships

keyRFtyp		refrig
CodeRFty	1 to 1	RF1TYPE

zones1		refrig
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

2.3.25 Table: sched1

Record Count: 1202
Description: Area-wide schedules; monthly and occupancy.

Name	Type	Description
SITEID	Text	RLW Site ID
AREA	Number (Integer)	Area ID
Q5_M	Number (Double)	Daytype code for Monday 1=full, 2=light, 3=closed
Q5_TU	Number (Double)	Daytype code for Tuesday 1=full, 2=light, 3=closed
Q5_W	Number (Double)	Daytype code for Wednesday 1=full, 2=light, 3=closed
Q5_TH	Number (Double)	Daytype code for Thursday 1=full, 2=light, 3=closed
Q5_F	Number (Double)	Daytype code for Friday 1=full, 2=light, 3=closed
Q5_SA	Number (Double)	Daytype code for Saturday 1=full, 2=light, 3=closed
Q5_SU	Number (Double)	Daytype code for Sunday 1=full, 2=light, 3=closed
Q5_HOL	Number (Double)	Daytype code for Holiday 1=full, 2=light, 3=closed
Q6JANLIT	Number (Double)	Lighting % of normal, Jan
Q6JANHVC	Number (Double)	HVAC % of normal, Jan
Q6JANEQU	Number (Double)	Misc. equipment % of normal, Jan
Q6FEBLIT	Number (Double)	Lighting % of normal, Feb
Q6FEBHVC	Number (Double)	HVAC % of normal, Feb
Q6FEBEQU	Number (Double)	Misc. equipment % of normal, Feb
Q6MARLIT	Number (Double)	Lighting % of normal, Mar
Q6MARHVC	Number (Double)	HVAC % of normal, Mar
Q6MAREQU	Number (Double)	Misc. equipment % of normal, Mar
Q6APRLIT	Number (Double)	Lighting % of normal, Apr
Q6APRHVC	Number (Double)	HVAC % of normal, Apr
Q6APREQU	Number (Double)	Misc. equipment % of normal, Apr
Q6MAYLIT	Number (Double)	Lighting % of normal, May
Q6MAYHVC	Number (Double)	HVAC % of normal, May
Q6MAYEQU	Number (Double)	Misc. equipment % of normal, May
Q6JUNLIT	Number (Double)	Lighting % of normal, Jun
Q6JUNHVC	Number (Double)	HVAC % of normal, Jun
Q6JUNEQU	Number (Double)	Misc. equipment % of normal, Jun
Q6JULLIT	Number (Double)	Lighting % of normal, Jul
Q6JULHVC	Number (Double)	HVAC % of normal, Jul
Q6JULEQU	Number (Double)	Misc. equipment % of normal, Jul
Q6AUGLIT	Number (Double)	Lighting % of normal, Aug
Q6AUGHVC	Number (Double)	HVAC % of normal, Aug
Q6AUGEQU	Number (Double)	Misc. equipment % of normal, Aug
Q6SEPLIT	Number (Double)	Lighting % of normal, Sep
Q6SEPHVC	Number (Double)	HVAC % of normal, Sep
Q6SEPEQU	Number (Double)	Misc. equipment % of normal, Sep
Q6OCTLIT	Number (Double)	Lighting % of normal, Oct
Q6OCTHVC	Number (Double)	HVAC % of normal, Oct
Q6OCTEQU	Number (Double)	Misc. equipment % of normal, Oct
Q6NOVLIT	Number (Double)	Lighting % of normal, Nov
Q6NOVHVC	Number (Double)	HVAC % of normal, Nov
Q6NOVEQU	Number (Double)	Misc. equipment % of normal, Nov
Q6DECLIT	Number (Double)	Lighting % of normal, Dec
Q6DECHVC	Number (Double)	HVAC % of normal, Dec
Q6DECEQU	Number (Double)	Misc. equipment % of normal, Dec
Q7NY	Number (Double)	Holiday observed flag, New Years Day
Q7MLK	Number (Double)	Holiday observed flag, MLK day
Q7PRES	Number (Double)	Holiday observed flag, Presidents day
Q7ESTR	Number (Double)	Holiday observed flag, Easter
Q7MEM	Number (Double)	Holiday observed flag, Memorial Day
Q74TH	Number (Double)	Holiday observed flag, Jul 4
Q7LABOR	Number (Double)	Holiday observed flag, Labor Day

Q7COLS	Number (Double)	Holiday observed flag, Columbus day
q7VETS	Number (Integer)	Holiday observed flag, Veterans day
Q7THANKS	Number (Double)	Holiday observed flag, Thanksgiving
Q7XMAS	Number (Double)	Holiday observed flag, Christmas

Name	Type	Description
Q8	Number (Double)	Not used
Q91	Number (Double)	Full day occupancy, hour 1
Q92	Number (Double)	Full day occupancy, hour 2
Q93	Number (Double)	Full day occupancy, hour 3
Q94	Number (Double)	Full day occupancy, hour 4
Q95	Number (Double)	Full day occupancy, hour 5
Q96	Number (Double)	Full day occupancy, hour 6
Q97	Number (Double)	Full day occupancy, hour 7
Q98	Number (Double)	Full day occupancy, hour 8
Q99	Number (Double)	Full day occupancy, hour 9
Q910	Number (Double)	Full day occupancy, hour 10
Q911	Number (Double)	Full day occupancy, hour 11
Q912	Number (Double)	Full day occupancy, hour 12
Q913	Number (Double)	Full day occupancy, hour 13
Q914	Number (Double)	Full day occupancy, hour 14
Q915	Number (Double)	Full day occupancy, hour 15
Q916	Number (Double)	Full day occupancy, hour 16
Q917	Number (Double)	Full day occupancy, hour 17
Q918	Number (Double)	Full day occupancy, hour 18
Q919	Number (Double)	Full day occupancy, hour 19
Q920	Number (Double)	Full day occupancy, hour 20
Q921	Number (Double)	Full day occupancy, hour 21
Q922	Number (Double)	Full day occupancy, hour 22
Q923	Number (Double)	Full day occupancy, hour 23
Q924	Number (Double)	Full day occupancy, hour 24
Q101	Number (Double)	Light day occupancy, hour 1
Q102	Number (Double)	Light day occupancy, hour 2
Q103	Number (Double)	Light day occupancy, hour 3
Q104	Number (Double)	Light day occupancy, hour 4
Q105	Number (Double)	Light day occupancy, hour 5
Q106	Number (Double)	Light day occupancy, hour 6
Q107	Number (Double)	Light day occupancy, hour 7
Q108	Number (Double)	Light day occupancy, hour 8
Q109	Number (Double)	Light day occupancy, hour 9
Q1010	Number (Double)	Light day occupancy, hour 10
Q1011	Number (Double)	Light day occupancy, hour 11
Q1012	Number (Double)	Light day occupancy, hour 12
Q1013	Number (Double)	Light day occupancy, hour 13
Q1014	Number (Double)	Light day occupancy, hour 14
Q1015	Number (Double)	Light day occupancy, hour 15
Q1016	Number (Double)	Light day occupancy, hour 16
Q1017	Number (Double)	Light day occupancy, hour 17
Q1018	Number (Double)	Light day occupancy, hour 18
Q1019	Number (Double)	Light day occupancy, hour 19
Q1020	Number (Double)	Light day occupancy, hour 20
Q1021	Number (Double)	Light day occupancy, hour 21
Q1022	Number (Double)	Light day occupancy, hour 22
Q1023	Number (Double)	Light day occupancy, hour 23
Q1024	Number (Double)	Light day occupancy, hour 24
Q111	Number (Double)	Closed day occupancy, hour 1
Q112	Number (Double)	Closed day occupancy, hour 2
Q113	Number (Double)	Closed day occupancy, hour 3
Q114	Number (Double)	Closed day occupancy, hour 4
Q115	Number (Double)	Closed day occupancy, hour 5
Q116	Number (Double)	Closed day occupancy, hour 6
Q117	Number (Double)	Closed day occupancy, hour 7
Q118	Number (Double)	Closed day occupancy, hour 8
Q119	Number (Double)	Closed day occupancy, hour 9
Q1110	Number (Double)	Closed day occupancy, hour 10
Q1111	Number (Double)	Closed day occupancy, hour 11

Q1112	Number (Double)	Closed day occupancy, hour 12
Q1113	Number (Double)	Closed day occupancy, hour 13
Q1114	Number (Double)	Closed day occupancy, hour 14
Q1115	Number (Double)	Closed day occupancy, hour 15
Q1116	Number (Double)	Closed day occupancy, hour 16
Q1117	Number (Double)	Closed day occupancy, hour 17

Name	Type	Description
Q1118	Number (Double)	Closed day occupancy, hour 18
Q1119	Number (Double)	Closed day occupancy, hour 19
Q1120	Number (Double)	Closed day occupancy, hour 20
Q1121	Number (Double)	Closed day occupancy, hour 21
Q1122	Number (Double)	Closed day occupancy, hour 22
Q1123	Number (Double)	Closed day occupancy, hour 23
Q1124	Number (Double)	Closed day occupancy, hour 24
STATUS	Text	Not used
thnk_cnt	Number (Integer)	Days observed during thanksgiving
xmas_cnt	Number (Integer)	Days observed during Christmas
estr_cnt	Number (Integer)	Days observed during Easter

Relationships

SiteArea		sched1
SiteID	1 to 1	SITEID
Area	1 to 1	AREA

2.3.26 Table: sched2

Record Count: 1202
Description: Area-wide schedules; lighting, plugs, kitchen

Name	Type	Description
SITEID	Text	RLW Site ID
AREA	Number (Integer)	Area ID
Q121	Number (Double)	Full day interior lighting use, hour 1
Q122	Number (Double)	Full day interior lighting use, hour 2
Q123	Number (Double)	Full day interior lighting use, hour 3
Q124	Number (Double)	Full day interior lighting use, hour 4
Q125	Number (Double)	Full day interior lighting use, hour 5
Q126	Number (Double)	Full day interior lighting use, hour 6
Q127	Number (Double)	Full day interior lighting use, hour 7
Q128	Number (Double)	Full day interior lighting use, hour 8
Q129	Number (Double)	Full day interior lighting use, hour 9
Q1210	Number (Double)	Full day interior lighting use, hour 10
Q1211	Number (Double)	Full day interior lighting use, hour 11
Q1212	Number (Double)	Full day interior lighting use, hour 12
Q1213	Number (Double)	Full day interior lighting use, hour 13
Q1214	Number (Double)	Full day interior lighting use, hour 14
Q1215	Number (Double)	Full day interior lighting use, hour 15
Q1216	Number (Double)	Full day interior lighting use, hour 16
Q1217	Number (Double)	Full day interior lighting use, hour 17
Q1218	Number (Double)	Full day interior lighting use, hour 18
Q1219	Number (Double)	Full day interior lighting use, hour 19
Q1220	Number (Double)	Full day interior lighting use, hour 20
Q1221	Number (Double)	Full day interior lighting use, hour 21
Q1222	Number (Double)	Full day interior lighting use, hour 22
Q1223	Number (Double)	Full day interior lighting use, hour 23
Q1224	Number (Double)	Full day interior lighting use, hour 24
Q131	Number (Double)	Light day interior lighting use, hour 1
Q132	Number (Double)	Light day interior lighting use, hour 2
Q133	Number (Double)	Light day interior lighting use, hour 3
Q134	Number (Double)	Light day interior lighting use, hour 4
Q135	Number (Double)	Light day interior lighting use, hour 5
Q136	Number (Double)	Light day interior lighting use, hour 6
Q137	Number (Double)	Light day interior lighting use, hour 7
Q138	Number (Double)	Light day interior lighting use, hour 8
Q139	Number (Double)	Light day interior lighting use, hour 9
Q1310	Number (Double)	Light day interior lighting use, hour 10

Q1311	Number (Double)	Light day interior lighting use, hour 11
Q1312	Number (Double)	Light day interior lighting use, hour 12
Q1313	Number (Double)	Light day interior lighting use, hour 13
Q1314	Number (Double)	Light day interior lighting use, hour 14
Q1315	Number (Double)	Light day interior lighting use, hour 15
Q1316	Number (Double)	Light day interior lighting use, hour 16

Name	**Type**	**Description**
Q1317	Number (Double)	Light day interior lighting use, hour 17
Q1318	Number (Double)	Light day interior lighting use, hour 18
Q1319	Number (Double)	Light day interior lighting use, hour 19
Q1320	Number (Double)	Light day interior lighting use, hour 20
Q1321	Number (Double)	Light day interior lighting use, hour 21
Q1322	Number (Double)	Light day interior lighting use, hour 22
Q1323	Number (Double)	Light day interior lighting use, hour 23
Q1324	Number (Double)	Light day interior lighting use, hour 24
Q141	Number (Double)	Closed day interior lighting use, hour 1
Q142	Number (Double)	Closed day interior lighting use, hour 2
Q143	Number (Double)	Closed day interior lighting use, hour 3
Q144	Number (Double)	Closed day interior lighting use, hour 4
Q145	Number (Double)	Closed day interior lighting use, hour 5
Q146	Number (Double)	Closed day interior lighting use, hour 6
Q147	Number (Double)	Closed day interior lighting use, hour 7
Q148	Number (Double)	Closed day interior lighting use, hour 8
Q149	Number (Double)	Closed day interior lighting use, hour 9
Q1410	Number (Double)	Closed day interior lighting use, hour 10
Q1411	Number (Double)	Closed day interior lighting use, hour 11
Q1412	Number (Double)	Closed day interior lighting use, hour 12
Q1413	Number (Double)	Closed day interior lighting use, hour 13
Q1414	Number (Double)	Closed day interior lighting use, hour 14
Q1415	Number (Double)	Closed day interior lighting use, hour 15
Q1416	Number (Double)	Closed day interior lighting use, hour 16
Q1417	Number (Double)	Closed day interior lighting use, hour 17
Q1418	Number (Double)	Closed day interior lighting use, hour 18
Q1419	Number (Double)	Closed day interior lighting use, hour 19
Q1420	Number (Double)	Closed day interior lighting use, hour 20
Q1421	Number (Double)	Closed day interior lighting use, hour 21
Q1422	Number (Double)	Closed day interior lighting use, hour 22
Q1423	Number (Double)	Closed day interior lighting use, hour 23
Q1424	Number (Double)	Closed day interior lighting use, hour 24
Q151	Number (Double)	Full day miscellaneous equipment use, hour 1
Q152	Number (Double)	Full day miscellaneous equipment use, hour 2
Q153	Number (Double)	Full day miscellaneous equipment use, hour 3
Q154	Number (Double)	Full day miscellaneous equipment use, hour 4
Q155	Number (Double)	Full day miscellaneous equipment use, hour 5
Q156	Number (Double)	Full day miscellaneous equipment use, hour 6
Q157	Number (Double)	Full day miscellaneous equipment use, hour 7
Q158	Number (Double)	Full day miscellaneous equipment use, hour 8
Q159	Number (Double)	Full day miscellaneous equipment use, hour 9
Q1510	Number (Double)	Full day miscellaneous equipment use, hour 10
Q1511	Number (Double)	Full day miscellaneous equipment use, hour 11
Q1512	Number (Double)	Full day miscellaneous equipment use, hour 12
Q1513	Number (Double)	Full day miscellaneous equipment use, hour 13
Q1514	Number (Double)	Full day miscellaneous equipment use, hour 14
Q1515	Number (Double)	Full day miscellaneous equipment use, hour 15
Q1516	Number (Double)	Full day miscellaneous equipment use, hour 16
Q1517	Number (Double)	Full day miscellaneous equipment use, hour 17
Q1518	Number (Double)	Full day miscellaneous equipment use, hour 18
Q1519	Number (Double)	Full day miscellaneous equipment use, hour 19
Q1520	Number (Double)	Full day miscellaneous equipment use, hour 20

Q1521	Number (Double)	Full day miscellaneous equipment use, hour 21
Q1522	Number (Double)	Full day miscellaneous equipment use, hour 22
Q1523	Number (Double)	Full day miscellaneous equipment use, hour 23
Q1524	Number (Double)	Full day miscellaneous equipment use, hour 24
Q161	Number (Double)	Light day miscellaneous equipment use, hour 1
Q162	Number (Double)	Light day miscellaneous equipment use, hour 2
Q163	Number (Double)	Light day miscellaneous equipment use, hour 3
Q164	Number (Double)	Light day miscellaneous equipment use, hour 4
Q165	Number (Double)	Light day miscellaneous equipment use, hour 5
Q166	Number (Double)	Light day miscellaneous equipment use, hour 6
Q167	Number (Double)	Light day miscellaneous equipment use, hour 7
Q168	Number (Double)	Light day miscellaneous equipment use, hour 8
Q169	Number (Double)	Light day miscellaneous equipment use, hour 9
Q1610	Number (Double)	Light day miscellaneous equipment use, hour 10
Q1611	Number (Double)	Light day miscellaneous equipment use, hour 11

Name	Type	Description
Q1612	Number (Double)	Light day miscellaneous equipment use, hour 12
Q1613	Number (Double)	Light day miscellaneous equipment use, hour 13
Q1614	Number (Double)	Light day miscellaneous equipment use, hour 14
Q1615	Number (Double)	Light day miscellaneous equipment use, hour 15
Q1616	Number (Double)	Light day miscellaneous equipment use, hour 16
Q1617	Number (Double)	Light day miscellaneous equipment use, hour 17
Q1618	Number (Double)	Light day miscellaneous equipment use, hour 18
Q1619	Number (Double)	Light day miscellaneous equipment use, hour 19
Q1620	Number (Double)	Light day miscellaneous equipment use, hour 20
Q1621	Number (Double)	Light day miscellaneous equipment use, hour 21
Q1622	Number (Double)	Light day miscellaneous equipment use, hour 22
Q1623	Number (Double)	Light day miscellaneous equipment use, hour 23
Q1624	Number (Double)	Light day miscellaneous equipment use, hour 24
Q171	Number (Double)	Closed day miscellaneous equipment use, hour 1
Q172	Number (Double)	Closed day miscellaneous equipment use, hour 2
Q173	Number (Double)	Closed day miscellaneous equipment use, hour 3
Q174	Number (Double)	Closed day miscellaneous equipment use, hour 4
Q175	Number (Double)	Closed day miscellaneous equipment use, hour 5
Q176	Number (Double)	Closed day miscellaneous equipment use, hour 6
Q177	Number (Double)	Closed day miscellaneous equipment use, hour 7
Q178	Number (Double)	Closed day miscellaneous equipment use, hour 8
Q179	Number (Double)	Closed day miscellaneous equipment use, hour 9
Q1710	Number (Double)	Closed day miscellaneous equipment use, hour 10
Q1711	Number (Double)	Closed day miscellaneous equipment use, hour 11
Q1712	Number (Double)	Closed day miscellaneous equipment use, hour 12
Q1713	Number (Double)	Closed day miscellaneous equipment use, hour 13
Q1714	Number (Double)	Closed day miscellaneous equipment use, hour 14
Q1715	Number (Double)	Closed day miscellaneous equipment use, hour 15
Q1716	Number (Double)	Closed day miscellaneous equipment use, hour 16
Q1717	Number (Double)	Closed day miscellaneous equipment use, hour 17
Q1718	Number (Double)	Closed day miscellaneous equipment use, hour 18
Q1719	Number (Double)	Closed day miscellaneous equipment use, hour 19
Q1720	Number (Double)	Closed day miscellaneous equipment use, hour 20
Q1721	Number (Double)	Closed day miscellaneous equipment use, hour 21
Q1722	Number (Double)	Closed day miscellaneous equipment use, hour 22
Q1723	Number (Double)	Closed day miscellaneous equipment use, hour 23
Q1724	Number (Double)	Closed day miscellaneous equipment use, hour 24
Q181	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 1
Q182	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 2
Q183	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 3
Q184	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 4
Q185	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 5
Q186	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 6
Q187	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 7
Q188	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 8
Q189	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 9
Q1810	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 10
Q1811	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 11
Q1812	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 12
Q1813	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 13
Q1814	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 14
Q1815	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 15
Q1816	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 16
Q1817	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 17
Q1818	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 18
Q1819	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 19
Q1820	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 20
Q1821	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 21
Q1822	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 22
Q1823	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 23

Q1824	Text	Full day kitchen appliance use (High, Med, Low, Idle, Off), hour 24
Q191	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 1
Q192	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 2
Q193	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 3
Q194	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 4
Q195	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 5

Name	Type	Description
Q196	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 6
Q197	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 7
Q198	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 8
Q199	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 9
Q1910	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 10
Q1911	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 11
Q1912	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 12
Q1913	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 13
Q1914	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 14
Q1915	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 15
Q1916	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 16
Q1917	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 17
Q1918	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 18
Q1919	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 19
Q1920	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 20
Q1921	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 21
Q1922	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 22
Q1923	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 23
Q1924	Text	Light day kitchen appliance use (High, Med, Low, Idle, Off), hour 24
STATUS	Text	Not used

Relationships

SiteArea		sched2
SiteID	1 to 1	SITEID
Area	1 to 1	AREA

2.3.27 Table: schFnCl

Record Count: 1443
Description: Fan schedule for closed day, by virtual system

Name	Type	Description
SITEID	Text	RLW Slte ID
VSYS	Text	Virtual system ID
h1	Yes/No	Closed daytype fan operation status flag, hour 1
h2	Yes/No	Closed daytype fan operation status flag, hour 2
h3	Yes/No	Closed daytype fan operation status flag, hour 3
h4	Yes/No	Closed daytype fan operation status flag, hour 4
h5	Yes/No	Closed daytype fan operation status flag, hour 5
h6	Yes/No	Closed daytype fan operation status flag, hour 6
h7	Yes/No	Closed daytype fan operation status flag, hour 7
h8	Yes/No	Closed daytype fan operation status flag, hour 8
h9	Yes/No	Closed daytype fan operation status flag, hour 9
h10	Yes/No	Closed daytype fan operation status flag, hour 10
h11	Yes/No	Closed daytype fan operation status flag, hour 11
h12	Yes/No	Closed daytype fan operation status flag, hour 12
h13	Yes/No	Closed daytype fan operation status flag, hour 13
h14	Yes/No	Closed daytype fan operation status flag, hour 14
h15	Yes/No	Closed daytype fan operation status flag, hour 15
h16	Yes/No	Closed daytype fan operation status flag, hour 16
h17	Yes/No	Closed daytype fan operation status flag, hour 17
h18	Yes/No	Closed daytype fan operation status flag, hour 18
h19	Yes/No	Closed daytype fan operation status flag, hour 19
h20	Yes/No	Closed daytype fan operation status flag, hour 20
h21	Yes/No	Closed daytype fan operation status flag, hour 21
h22	Yes/No	Closed daytype fan operation status flag, hour 22
h23	Yes/No	Closed daytype fan operation status flag, hour 23
h24	Yes/No	Closed daytype fan operation status flag, hour 24

Relationships

vSystems		schFnCl
siteID	1 to 1	SITEID
vSys	1 to 1	VSYS

2.3.28 Table: schFnFul

Record Count: 1443
Description: Fan schedule for full day, by virtual system

Name	Type	Description
SITEID	Text	RLW Site ID
VSYS	Text	Virtual system ID
h1	Yes/No	Full operation daytype fan operation status flag, hour 1
h2	Yes/No	Full operation daytype fan operation status flag, hour 2
h3	Yes/No	Full operation daytype fan operation status flag, hour 3
h4	Yes/No	Full operation daytype fan operation status flag, hour 4
h5	Yes/No	Full operation daytype fan operation status flag, hour 5
h6	Yes/No	Full operation daytype fan operation status flag, hour 6
h7	Yes/No	Full operation daytype fan operation status flag, hour 7
h8	Yes/No	Full operation daytype fan operation status flag, hour 8
h9	Yes/No	Full operation daytype fan operation status flag, hour 9
h10	Yes/No	Full operation daytype fan operation status flag, hour 10
h11	Yes/No	Full operation daytype fan operation status flag, hour 11
h12	Yes/No	Full operation daytype fan operation status flag, hour 12
h13	Yes/No	Full operation daytype fan operation status flag, hour 13
h14	Yes/No	Full operation daytype fan operation status flag, hour 14
h15	Yes/No	Full operation daytype fan operation status flag, hour 15
h16	Yes/No	Full operation daytype fan operation status flag, hour 16
h17	Yes/No	Full operation daytype fan operation status flag, hour 17
h18	Yes/No	Full operation daytype fan operation status flag, hour 18
h19	Yes/No	Full operation daytype fan operation status flag, hour 19
h20	Yes/No	Full operation daytype fan operation status flag, hour 20
h21	Yes/No	Full operation daytype fan operation status flag, hour 21
h22	Yes/No	Full operation daytype fan operation status flag, hour 22
h23	Yes/No	Full operation daytype fan operation status flag, hour 23
h24	Yes/No	Full operation daytype fan operation status flag, hour 24

Relationships

vSystems		schFnFul
siteID	1 to 1	SITEID
vSys	1 to 1	VSYS

2.3.29 Table: schFnLt

Record Count: 1443
Description: Fan schedule for light day, by virtual system.

Name	Type	Description
SITEID	Text	RLW Site ID
VSYS	Text	Virtual system ID
h1	Yes/No	Light operation daytype fan operation status flag, hour 1
h2	Yes/No	Light operation daytype fan operation status flag, hour 2
h3	Yes/No	Light operation daytype fan operation status flag, hour 3
h4	Yes/No	Light operation daytype fan operation status flag, hour 4

h5	Yes/No	Light operation daytype fan operation status flag, hour 5
h6	Yes/No	Light operation daytype fan operation status flag, hour 6
h7	Yes/No	Light operation daytype fan operation status flag, hour 7
h8	Yes/No	Light operation daytype fan operation status flag, hour 8
h9	Yes/No	Light operation daytype fan operation status flag, hour 9
h10	Yes/No	Light operation daytype fan operation status flag, hour 10
h11	Yes/No	Light operation daytype fan operation status flag, hour 11
h12	Yes/No	Light operation daytype fan operation status flag, hour 12
h13	Yes/No	Light operation daytype fan operation status flag, hour 13
h14	Yes/No	Light operation daytype fan operation status flag, hour 14
h15	Yes/No	Light operation daytype fan operation status flag, hour 15

Name	Type	Description
h16	Yes/No	Light operation daytype fan operation status flag, hour 16
h17	Yes/No	Light operation daytype fan operation status flag, hour 17
h18	Yes/No	Light operation daytype fan operation status flag, hour 18
h19	Yes/No	Light operation daytype fan operation status flag, hour 19
h20	Yes/No	Light operation daytype fan operation status flag, hour 20
h21	Yes/No	Light operation daytype fan operation status flag, hour 21
h22	Yes/No	Light operation daytype fan operation status flag, hour 22
h23	Yes/No	Light operation daytype fan operation status flag, hour 23
h24	Yes/No	Light operation daytype fan operation status flag, hour 24

Relationships

vSystems		schFnLt
siteID	1 to 1	SITEID
vSys	1 to 1	VSYS

2.3.30 Table: SchTStat

Record Count: 1197
Description: Thermostat schedule

Name	Type	Description
SITEID	Text	RLW Site ID
AREA	Number (Integer)	Area ID
hSPOCC	Number (Integer)	Occupied period heating setpoint
hSPUNOCC	Number (Integer)	Unoccupied period heating setpoint
cSPOCC	Number (Long)	Occupied period cooling setpoint
cSPUNOCC	Number (Long)	Unoccupied period cooling setpoint
FanSch	Yes/No	Thermostat schedule follows fan schedule flag
full1	Yes/No	Full occupancy daytype occupied mode flag for hour 1
full2	Yes/No	Full occupancy daytype occupied mode flag for hour 2
full3	Yes/No	Full occupancy daytype occupied mode flag for hour 3
full4	Yes/No	Full occupancy daytype occupied mode flag for hour 4
full5	Yes/No	Full occupancy daytype occupied mode flag for hour 5
full6	Yes/No	Full occupancy daytype occupied mode flag for hour 6
full7	Yes/No	Full occupancy daytype occupied mode flag for hour 7
full8	Yes/No	Full occupancy daytype occupied mode flag for hour 8
full9	Yes/No	Full occupancy daytype occupied mode flag for hour 9
full10	Yes/No	Full occupancy daytype occupied mode flag for hour 10
full11	Yes/No	Full occupancy daytype occupied mode flag for hour 11
full12	Yes/No	Full occupancy daytype occupied mode flag for hour 12
full13	Yes/No	Full occupancy daytype occupied mode flag for hour 13
full14	Yes/No	Full occupancy daytype occupied mode flag for hour 14
full15	Yes/No	Full occupancy daytype occupied mode flag for hour 15
full16	Yes/No	Full occupancy daytype occupied mode flag for hour 16
full17	Yes/No	Full occupancy daytype occupied mode flag for hour 17
full18	Yes/No	Full occupancy daytype occupied mode flag for hour 18
full19	Yes/No	Full occupancy daytype occupied mode flag for hour 19
full20	Yes/No	Full occupancy daytype occupied mode flag for hour 20
full21	Yes/No	Full occupancy daytype occupied mode flag for hour 21
full22	Yes/No	Full occupancy daytype occupied mode flag for hour 22
full23	Yes/No	Full occupancy daytype occupied mode flag for hour 23
full24	Yes/No	Full occupancy daytype occupied mode flag for hour 24
light1	Yes/No	Light occupancy daytype occupied mode flag for hour 1
light2	Yes/No	Light occupancy daytype occupied mode flag for hour 2
light3	Yes/No	Light occupancy daytype occupied mode flag for hour 3
light4	Yes/No	Light occupancy daytype occupied mode flag for hour 4
light5	Yes/No	Light occupancy daytype occupied mode flag for hour 5
light6	Yes/No	Light occupancy daytype occupied mode flag for hour 6

light7	Yes/No	Light occupancy daytype occupied mode flag for hour 7
light8	Yes/No	Light occupancy daytype occupied mode flag for hour 8
light9	Yes/No	Light occupancy daytype occupied mode flag for hour 9
light10	Yes/No	Light occupancy daytype occupied mode flag for hour 10
light11	Yes/No	Light occupancy daytype occupied mode flag for hour 11

Name	Type	Description
light12	Yes/No	Light occupancy daytype occupied mode flag for hour 12
light13	Yes/No	Light occupancy daytype occupied mode flag for hour 13
light14	Yes/No	Light occupancy daytype occupied mode flag for hour 14
light15	Yes/No	Light occupancy daytype occupied mode flag for hour 15
light16	Yes/No	Light occupancy daytype occupied mode flag for hour 16
light17	Yes/No	Light occupancy daytype occupied mode flag for hour 17
light18	Yes/No	Light occupancy daytype occupied mode flag for hour 18
light19	Yes/No	Light occupancy daytype occupied mode flag for hour 19
light20	Yes/No	Light occupancy daytype occupied mode flag for hour 20
light21	Yes/No	Light occupancy daytype occupied mode flag for hour 21
light22	Yes/No	Light occupancy daytype occupied mode flag for hour 22
light23	Yes/No	Light occupancy daytype occupied mode flag for hour 23
light24	Yes/No	Light occupancy daytype occupied mode flag for hour 24
close1	Yes/No	Closed daytype occupied mode flag for hour 1
close2	Yes/No	Closed daytype occupied mode flag for hour 2
close3	Yes/No	Closed daytype occupied mode flag for hour 3
close4	Yes/No	Closed daytype occupied mode flag for hour 4
close5	Yes/No	Closed daytype occupied mode flag for hour 5
close6	Yes/No	Closed daytype occupied mode flag for hour 6
close7	Yes/No	Closed daytype occupied mode flag for hour 7
close8	Yes/No	Closed daytype occupied mode flag for hour 8
close9	Yes/No	Closed daytype occupied mode flag for hour 9
close10	Yes/No	Closed daytype occupied mode flag for hour 10
close11	Yes/No	Closed daytype occupied mode flag for hour 11
close12	Yes/No	Closed daytype occupied mode flag for hour 12
close13	Yes/No	Closed daytype occupied mode flag for hour 13
close14	Yes/No	Closed daytype occupied mode flag for hour 14
close15	Yes/No	Closed daytype occupied mode flag for hour 15
close16	Yes/No	Closed daytype occupied mode flag for hour 16
close17	Yes/No	Closed daytype occupied mode flag for hour 17
close18	Yes/No	Closed daytype occupied mode flag for hour 18
close19	Yes/No	Closed daytype occupied mode flag for hour 19
close20	Yes/No	Closed daytype occupied mode flag for hour 20
close21	Yes/No	Closed daytype occupied mode flag for hour 21
close22	Yes/No	Closed daytype occupied mode flag for hour 22
close23	Yes/No	Closed daytype occupied mode flag for hour 23
close24	Yes/No	Closed daytype occupied mode flag for hour 24

Relationships

SiteArea		SchTStat
SiteID	1 to 1	SITEID
Area	1 to 1	AREA

2.3.31 Table: SiteArea

Record Count: 1202
Description: List of *areas* in each building

Name	Type	Description
SiteID	Text	RLW Site ID
Area	Number (Integer)	Area ID code
AreaName	Text	Area name

Relationships

intview1		**SiteArea**
SITEID	1 to many	SiteID
SiteArea		**sched1**
SiteID	1 to 1	SITEID
Area	1 to 1	AREA
SiteArea		**sched2**
SiteID	1 to 1	SITEID
Area	1 to 1	AREA
SiteArea		**SchTStat**
SiteID	1 to 1	SITEID
Area	1 to 1	AREA
SiteArea		**zones1**
SiteID	1 to many	SITEID
Area	1 to many	Area

2.3.32 Table: sol_DHW

Record Count: 6
Description: Solar hot water systems

Name	Type	Description
SITEID	Text	RLW Slte ID
SW1LOC	Text	Location
SW1TYPE	Number (Double)	System Type
SW1SF	Number (Double)	Area(ft2)
SW1TILT	Number (Double)	Tilt(deg)
SW1CAP	Number (Double)	Tank Cap(gal)
SW1M	Number (Double)	Rebated Measure?
Comment	Text	Comment

Relationships

intview1		**sol_DHW**
SITEID	1 to many	SITEID

2.3.33 Table: syszone

Record Count: 485
Description: Assignment of chillers, towers, boilers and pumps to the virtual systems

Name	Type	Description
SITEID	Text	RLW Site ID
CH1	Text	Virtual system number for chiller 1
CH2	Text	Virtual system number for chiller 2
CH3	Text	Virtual system number for chiller 3
CH1B	Text	Virtual system number for chiller 1b
CH2B	Text	Virtual system number for chiller 2b
CH3B	Text	Virtual system number for chiller3b
T1	Text	Virtual system number for Tower 1
T2	Text	Virtual system number for Tower 2
T3	Text	Virtual system number for Tower 3
T1B	Text	Virtual system number for Tower 1b
T2B	Text	Virtual system number for Tower 2b
T3B	Text	Virtual system number for Tower 3b
HS1	Text	Virtual system number for Heating system 1
HS2	Text	Virtual system number for Heating system 2
HS3	Text	Virtual system number for Heating system 3
HS1B	Text	Virtual system number for Heating system 1b
HS2B	Text	Virtual system number for Heating system 2b
HS3B	Text	Virtual system number for Heating system 3b
P1	Text	Virtual system number for pump 1
P2	Text	Virtual system number for pump 2
P3	Text	Virtual system number for pump 3
P4	Text	Virtual system number for pump 4
P5	Text	Virtual system number for pump 5
P6	Text	Virtual system number for pump 6
P7	Text	Virtual system number for pump 7
P8	Text	Virtual system number for pump 8
P9	Text	Virtual system number for pump 9
P10	Text	Virtual system number for pump 10
P11	Text	Virtual system number for pump 11
P12	Text	Virtual system number for pump 12
P13	Text	Virtual system number for pump 13
P14	Text	Virtual system number for pump 14
P15	Text	Virtual system number for pump 15
P16	Text	Virtual system number for pump 16
P17	Text	Virtual system number for pump 17
P18	Text	Virtual system number for pump 18
P19	Text	Virtual system number for pump 19
P20	Text	Virtual system number for pump 20
ZONE1	Text	Virtual system number zone 1
ZONE2	Text	Virtual system number zone 2
ZONE3	Text	Virtual system number zone 3
ZONE4	Text	Virtual system number zone 4
ZONE5	Text	Virtual system number zone 5
ZONE1B	Text	Virtual system number zone 1b
ZONE2B	Text	Virtual system number zone 2b
ZONE3B	Text	Virtual system number zone 3b
ZONE4B	Text	Virtual system number zone 4b
ZONE5B	Text	Virtual system number zone 5b
Z1AREA	Number (Double)	Area assignment for Zone 1
Z2AREA	Number (Double)	Area assignment for Zone 2
Z3AREA	Number (Double)	Area assignment for Zone 3
Z4AREA	Number (Double)	Area assignment for Zone 4

Z5AREA	Number (Double)	Area assignment for Zone 5
Z1BAREA	Number (Double)	Area assignment for Zone 1b
Z2BAREA	Number (Double)	Area assignment for Zone 2b
Z3BAREA	Number (Double)	Area assignment for Zone 3b
Z4BAREA	Number (Double)	Area assignment for Zone 4b
Z5BAREA	Number (Double)	Area assignment for Zone 5b
STATUS	Text	Not used

Relationships

intview1		**syszone**
SITEID	1 to many	SITEID

2.3.34 Table: tbSpEq

Record Count: 7867
Description: Plug load equipment

Name	**Type**	**Description**
siteid	Text	RLW Site ID
spc_num	Number (Integer)	Space ID
ECODE	Number (Integer)	Equipment type code
ECOUNT	Number (Integer)	Equipment unit count
EKW	Number (Single)	Equipment nameplate kW, if different from default
EHP	Number (Single)	Equipment nameplate hp, if different from default
EKBTUH	Number (Single)	Equipment nameplate fuel input rating, kBtu/hr
EHOOD	Number (Integer)	Hood status code
EINTENS	Number (Long)	Not used
ENOTES	Text	comment field
Units	Number (Integer)	Equipment nameplate units flag 1:kW; 2:HP; 3:kBtuh
EpwrRat	Number (Single)	Not used

Relationships

tSpace		**tbSpEq**
siteid	1 to many	siteid
spc_num	1 to many	spc_num

2.3.35 Table: tbSpLt

Record Count: 10873
Description: Interior lighting

Name	**Type**	**Description**
siteid	Text	RLW Site ID
spc_num	Number (Integer)	Space ID
lfcode	Text	fixture code
lcount	Number (Integer)	Fixture count
lmt	Number (Integer)	mounting type code 1:Rec; 2:Sus 3;Task
lccode	Number (Integer)	Control code 1: Occ sensor; 2: Daylighting - cont dim; 3: Daylighting – stepped; 4: Lumen maint; 5: Occ sensor plus daylighting; 6: Occ sensor plus lumen maint; 7: Daylighting plus lumen maint; 8: None
lfcon	Number (Single)	% fixtures controlled
lcon_opr	Number (Single)	% lighting controls operational
lm	Number (Integer)	Fixture measure flag
NameNote	Text	Notes field
lc_m	Number (Integer)	Control measure flag
M94	Number (Integer)	Generic measure flag from '94 PGE/SCE survey data

Relationships

Luminaires		**tbSpLt**
FIXTCODE		lfcode
tSpace		**tbSpLt**
siteid	1 to many	siteid
spc_num	1 to many	spc_num

2.3.36 Table: tbSpTypEq

Record Count: 74
Description: "Typical" plug loads. These can be referenced throughout the building

Name	Type	Description
siteid	Text	RLW SIte ID
Number	Number (Long)	Number used to reference definition of typical loads
ECODE	Number (Integer)	Equipment type code
ECOUNT	Number (Integer)	Equipment unit count
EKW	Number (Single)	Equipment nameplate kW, if different from default
EHP	Number (Single)	Equipment nameplate hp, if different from default
EKBTUH	Number (Single)	Equipment nameplate fuel input rating, kBtu/hr
EHOOD	Number (Integer)	Hood status code
EINTENS	Number (Long)	Not used
ENOTES	Text	comment field
Units	Number (Integer)	Equipment namplate units flag 1:kW; 2: HP; 3:kBtuh
EpwrRat	Number (Single)	Not used

Relationships

tbSpTypEqRef		tbSpTypEq
siteid	1 to many	siteid
Number	1 to many	Number

2.3.37 Table: tbSpTypEqRef

Record Count: 43
Description: Definition of "typical" spaces used to simplify input of plug loads. These can be reference throughout the building.

Name	Type	Description
siteid	Text	RLW SIte ID
Number	Number (Long)	Number used to reference definition of typical loads
Name	Text	Typical equipment survey area description
FLRAREA	Number (Integer)	Floor area surveyed to establish typical density

Relationships

intview1		tbSpTypEqRef
SITEID	1 to many	siteid

tbSpTypEqRef		tbSpTypEq
siteid	1 to many	siteid
Number	1 to many	Number

2.3.38 Table: TESsup

Record Count: 4
Description: Supplemental notes on thermal energy storage systems.

Name	Type	Description
SITEID	Text	RLW SIte ID
TESNotes	Memo	Notes on TES installation

Relationships

intview1		**TESsup**
SITEID	1 to 1	SITEID

2.3.39 Table: Trnsfrmr

Record Count: 329
Description: Interior electric transformers

Name	Type	Description
SITEID	Text	RLW Site ID
Name	Text	Transformer name
Locate	Text	Transformer location
Qty	Number (Integer)	Quantity
Manuf	Text	Manufacturer
Model	Text	Model number
kVA	Number (Single)	kVA rating
TempRise	Number (Single)	Temperature rise (deg C)
Fan	Yes/No	Mechanical cooling fan flag
M94	Number (Integer)	Measure flag from '94 PGE/SCE survey data

Relationships

intview1		Trnsfrmr
SITEID	1 to many	SITEID

2.3.40 Table: tSpace

Record Count: 2379
Description: Interior spaces. These are a subset of thermal zones.

Name	Type	Description
siteid	Text	RLW Slte ID
spc_num	Number (Integer)	Space ID code (1-30)
zone	Number (Integer)	Zone ID
spc_nme	Text	Space name
spc_oc	Number (Integer)	Space occupancy code
spcArea	Number (Long)	Space area (SF)
sCorPct	Number (Single)	Percent of total space area that is corridor or utility
spc_mlt	Number (Long)	Space multiplier
sEqCalc	Number (Long)	Miscellaneous equipment survey assignment reference number
lt_msr	Number (Integer)	LPD measure flag

Relationships

tSpace		tbSpEq
siteid	1 to many	siteid
spc_num	1 to many	spc_num

tSpace		tbSpLt
siteid	1 to many	siteid
spc_num	1 to many	spc_num

zones1		tSpace
SITEID	1 to many	siteid
ZONE	1 to many	zone

2.3.41 Table: vSystems

Record Count: 1454
Description: List of virtual systems. Virtual systems are systems as created in a DOE-2 model. They are comprised of one or more actual pieces of equipment.

Name	Type	Description
siteID	Text	RLW Site ID
vSys	Text	Virtual ID code
SysName	Text	Virtual system name

Relationships

intview1		**vSystems**
SITEID	1 to many	siteID
vSystems		**ccentair**
siteID	1 to many	SITEID
vSys	1 to many	vsys
vSystems		**cPHVACSY**
siteID	1 to many	SITEID
vSys	1 to many	vsys
vSystems		**schFnCl**
siteID	1 to 1	SITEID
vSys	1 to 1	VSYS
vSystems		**schFnFul**
siteID	1 to 1	SITEID
vSys	1 to 1	VSYS
vSystems		**schFnLt**
siteID	1 to 1	SITEID
vSys	1 to 1	VSYS

2.3.42 Table: vt_Trns

Record Count: 202
Description: Vertical transportation (e.g., elevators, escalators)

Name	Type	Description
SITEID	Text	RLW Site ID code
VT1TYPE	Number (Double)	Vertical transportation type code 1: Elevator; 2:Escalator
VT1QTY	Number (Double)	Vertical Transportation quantity
VT1HP	Number (Double)	Vertical Transportation motor hp
VT1NOFL	Number (Double)	Elevator number of floors
VT1WDTH	Number (Double)	Escalator width
VT1RISE	Number (Double)	Escalator Rise
VT1RUN	Number (Double)	Escalator Run
STATUS	Text	Not used

Relationships

intview1		**vt_Trns**
SITEID	1 to many	SITEID

2.3.43 Table: zones1

Record Count: 1921
Description: List of zones. These are the thermal zones that will be used in DOE-2 runs.

Name	Type	Description
SITEID	Text	RLW Site ID
ZONE	Number (Integer)	Zone ID
zName	Text	Zone name
ZEXPOSE	Number (Integer)	Zone by exposure status flag 1:"yes"; 2:"no"
ZMULT	Number (Integer)	Zone multiplier
vsys	Text	Virtual system assignment
Area	Number (Integer)	Area assignment

Relationships

SiteArea		**zones1**
SiteID	1 to many	SITEID
Area	1 to many	Area
zones1		**cWalls**
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE
zones1		**cWindows**
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE
zones1		**foodsvc**
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE
zones1		**foodsvc**
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE
zones1		**foodsvc2**
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE
zones1		**refrig**
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE
zones1		**tSpace**
SITEID	1 to many	siteid
ZONE	1 to many	zone
zones1		**zones2**
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

2.3.44 Table: zones2

Record Count: 1197
Description: Zonal HVAC systems.

Name	Type	Description
SITEID	Text	RLW Site ID
ZONE	Number (Integer)	Zone ID
ZS1CODE	Number (Double)	Zone level HVAC system type code 1: Basebd or rad heat; 2: 2 pipe fc; 3: 4 pipe fc; 4: 2 pipe induc; 5: 4 pipe induc; 6: Unit htr; 7: Unit vent; 8: std VAV; 9: Series VAV; 10: Parall VAV; 11: Comp room unit
ZS1QTY	Number (Double)	Zone system quantity
ZS1HP	Number (Double)	Zone system fan hp
ZS1HEAT	Number (Double)	Zone system heat source 0:DK; 1:Electric; 2:Other; 3:None
ZS1KW	Number (Double)	Zone system heat kW
STATUS	Text	Not used

Relationships

zones1		zones2
SITEID	1 to many	SITEID
ZONE	1 to many	ZONE

2.4 Lookup Tables

The following are lookup tables.

CityList
cotrolcode
high-off
key1_24
keyAC_cd
keyAH_cd
keyBalTypes
keyBldgType
keyCEC_bldg#
keyCH_cd
keyChDX
keyCities
KeyCntrl
KeyCntrl1
keyCommWho
keyComnProc
KeyDodgeBuildingTypes
keyEcon
keyEQfs
keyEvap
keyEXmis
keyFanCndnsrs
keyFanCtrl
keyFanType
keyFanTypePack
keyFixTypes
keyFlowUnits
keyFuel
KeyHS_cd
keyIncidents
keyLampCnt
keyLampWatts
keyLoadType
keyLogFileType
keyLt_Ctrl
keyMeasure
keyMeasureOrig
keyMotorEff
keyOcc2
keyOrient
KeyPmp_cd
keyProbs
keyProbSys
keyRFcom
keyRfDoor
keyRfgrnt
keyRFpro
keyRFtyp
keySEER_EER
keySiteChar
keySpaceCodes
keySPequ
keySPocc
keySrvMore
keySyHVA
keyT24e
keyT24L
keyT24m
keyTwr_cd
keyTypEqpLoads
keyVsysCodes
keyVsysCodesOld
KeyVsysZones
keyWalls
keyWHsol
keyWHsys
keyWin
keyWin_Verbose
keyWinFrameType
keyWinGlassType
keyWinIntShade
keyYN
keyZnHVA
keyZoneCodes
keyZoneHeat
KitchenScheduleLookUp
lampcodes
Luminaires
Percent_by_5
PercentageLookUp
t24hr_2
t24hr_txt
VsystemAll
zero_off

3. Data Cleaning

During the process of combining the data from the 94 and 96 NRNC evaluation studies, and while performing quality control on the queries used in preparing the baseline report, a number of data quality problems were discovered and cleaned. This section documents the changes that were made to the data.

3.1 Data Modified to Fix Import Problems

Data from the 1994 NRNC evaluation study was reformatted and combined with the data from the 1996 evaluation study. While the process for doing this was automated, subsequent tests revealed problems with the original data that prevented it from being ported over. The following table indicates sites from the 1994 study that had to be modified to facilitate combining the data.

94p2896	Removed 1 record from lite_ext table. The record had no lamp type, qty of 1
94s0001	Intview1:q78atemp. Min condensing temperature was 110. Unreasonable, field deleted.
94s0015 94s0033x 94s0044 94s0048 94p4063	These are sites where they assigned two areas to a single virtual system. A flaw in our design allowed them to enter two fan schedules for on virtual system. During the '94 study deckgen used the schedule from the first area. I eliminated the second schedule from each of the fan schedule tables.
94p3473 94p4882 94p4915b 94p7157 94p7219 94p7240 94p7367b 94p7388 94p7395 94s0058 94s0059 94s1654 94s1677 94s1850 94s5120b 94s5159 94s5429 94s5513 94s5753 94s5754b	These sites all had refrigeration compressor location missing in at least one refrig record. Took best guess as to what it should have been; "inside" in most cases.
94s0044	Added orientation to one window record.
94p7227 94s5159 94s2679 94s2540 94s0076	Missing chiller model numbers were supplied with the value "unknown"
94S2965A	Changed the motor efficiency from a fraction to a percentage (0.8->80)
94s3001	Missing window orientation. Guessed south base on wall orientations in zone.
94s5759b	Three walls not assigned to any zone. Assigned based on 94s5759a. All three walls had a note "added based on 5759a"
94p4018 94p4647	There was garbage in the syszone table that kept the records from being written to the new vsystems table. Not sure how the garbage might have affected the original runs. I simply added the necessary records to vsystems.
94p7272	vt_trns table vt1type missing value. Entered it from form.
94p7288	There was a typo in the old syszone so that area 3 was not defined in the new sitearea. In the original runs the typo would have caused zone 3 to be assigned to area 2 so the schedules may not have been accurate. I added area 3 to the site area table.
94p7426	Needs new data entry - zones1 data was missing from original data
94s0138	Needs new data entry - too many airhandlers for model; garbage in syszone kept data from being written to vsystems.

3.2 Survey-IT Validation Rules Relaxed to Combine Data

The 'name' field in the 'trnsfrmr' table is no longer a required field.

At least one of kw/kbtuh/size no longer required for foodsvc table.

'hCapUnit' (heating system capacity units) no longer a required field in the 'cheatsys' table.

'cacmanu' (package unit manufacturer) no longer a required field in the 'cphvacsy' table.

'cacmod' (package unit model number) no longer a required field in the 'cphvacsy' table.

3.3 More '94 Sites Fixed Based on Simulation Log Files

Once the '94 data had been combined, DOE-2 simulation runs were performed. The software writing the DOE-2 input files and the DOE-2 BDL summary were used to identify the following data problems. These problems were subsequently fixed in the combined database and the DOE-2 simulations were rerun.

94p4747	There are 0's in syszone instead of 1's so that AC units 3, 6, 7, 8 did not get written out	These are split systems so the equipment was removed by a QC engineer because it was redundant.
94p7202	The airhandler wasn't assigned in syszone so it didn't get written out	Added the airhandler back in.
94p7379	There are 7 airhandlers, 6 is the max so the last one is ignored. A packaged system wasn't assigned in syszone so it didn't get written out	Added 7th airhandler back in. Fan motors were rebated measure.
94p7445	An airhandler wasn't assigned in syszone so it didn't get written out.	Changed to split system by calibrating engineer.
94s0001	There are 18 package units, 12 is the max so the last 6 are ignored	Added the last 6 packaged units from the onsite form.
94s0043	There are 9 airhandlers, 6 is the max so the last three are ignored	Added three remaining air handlers.
94s2244	There are 13 packaged units so the last one is ignored	Added 13th packaged unit
94s5251	There are 7 airhanders, so the last one is ignored	Added 7th airhandler

3.4 HVAC Data Cleaning

The following problems were identified while investigating inconsistencies in the highest level queries created for the baseline report. The problems were resolved as shown in the rightmost column in the table on the next page.

SITEID	Problem	Resolution
94P2798B	vs with no equipment assigned	Assigned VS as zonal
94P2798C	vs with no equipment assigned	Assigned VS as zonal
94P3124	vs with no equipment assigned	Assigned VS as zonal, added unit heater
94P4563	BU and packaged on same VS	BU equipment removed.
94P4843A	vs with no equipment assigned	Assigned VS as zonal; changed zonal HVAC type from 2 pipe fan coil to unit ventilator
94P4843B	vs with no equipment assigned	Assigned VS as zonal; changed zonal HVAC type from 2 pipe fan coil to unit ventilator
94P5024A	vs with no equipment assigned	Assigned VS as zonal; defined furnace as unit ventilator.
94P5024B	vs with no equipment assigned	Assigned VS as zonal; defined furnace as unit ventilator.
94P7169	vs with no equipment assigned	Assigned VS as zonal
94P7175	BU and packaged on same VS	Deleted two small packaged computer coolers from VS 1.
94P7224A	vs with no equipment assigned	Assigned VS as zonal
94P7224B	vs with no equipment assigned	Assigned VS as zonal
94P7240	vs with no equipment assigned	Assigned VS as zonal
94P7337	fan coil not assigned as zonal HVAC	Assigned VS as zonal
94P7373	vs with no equipment assigned	Assigned VS as zonal, zone terminal from induction to fan coil
94P7374	vs with no equipment assigned	Assigned VS as zonal; defined furnace as unit ventilator.
94P7434	No chiller, faux bu ahu, BU and packaged on same VS	Central fresh air supply to packaged floor-by-floor system. Central system removed, since not modeled by DOE-2
94S0033	pkg and bu on same vs	BU system moved to VS with no equip assigned.
94S0033X	vs with no equipment assigned	Assigned VS as zonal
94S0036A	pkg and bu on same vs	WLHP system w/ central fresh air system. Deleted central AH, since DOE-2 can't model
94S0046A	vs with no equipment assigned	Assigned VS as zonal
94S1701B	vs with no equipment assigned	Assigned VS as zonal; defined furnace as unit ventilator.
94S1762	vs with no equipment assigned	Added bu ah w/ indirect evap cooling based on system description
94S1907A	vs with no equipment assigned	VS assigned as zonal; Unit ventilator assigned to cover furnace
94S1907B	vs with no equipment assigned	VS assigned as zonal; Unit ventilator assigned to cover furnace
94S2374B	vs with no equipment assigned	Assigned VS as zonal; added unit ventilator.
94S2635A	space assigned to vs with no attached equipment	Assigned VS as zonal
94S2965A	vs with no equipment assigned	Assigned VS as zonal, added baseboard heating system type
94S2995	vs with no equipment assigned	Assigned VS as zonal
94S5231	vs with no equipment assigned	Assigned VS as zonal; defined furnace as unit ventilator.
96P1026	pkg and bu on same vs	VS 1 described as BU and pkg. Deleted BU system to resolve conflict and remove redundancy.
96P1110	space assigned to vs with no attached equipment	Assigned VS as zonal
96P1119	pkg and bu on same vs	Deleted one small split computer room cooler to resolve VS conflict
96P1130	space assigned to vs with no attached equipment	Assigned VS as zonal; defined furnace as unit ventilator.
96P1203	pkg and bu on same vs	Deleted small computer room cooler to resolve VS conflict
96P1376	space assigned to vs with no attached equipment	Assigned VS as zonal; unit ventilators added.
96P246	BU and packaged on VS1, nothing on VS2	Moved BU equip to VS 2
96P308	pkg and bu on same vs	Deleted clean room filtration system to resolve conflict
96P331	vs with no equipment assigned	Assigned VS as zonal
96P344	vs with no equipment assigned	Pkg RTU reassigned from sales to bakery
96P359	uncond space assigned to vs with no equip attached	Assigned VS as unconditioned
96S123	vs with no equipment assigned	reassigned space to vs 1, eliminated vs 2 (ahu not surveyed)
96S2665	fan system type not defined	Assigned fan system type as single duct
96S2811	pkg and bu on same vs	deleted BU system to resolve VS conflict

96S30	pkg and bu on same vs	Deleted two small split heat pumps cooling mech/elec space to avoid VS conflict.
96S48	vs with no equipment assigned	Assigned VS as zonal
96S582	uncond space assigned to vs with no equip attached	Assigned VS as unconditioned
94S046XA	Swamp coolers and fpfc on same VS	Swamp coolers eliminated and VS set to zonal
94S046XB	Swamp coolers and fpfc on same VS	Chiller eliminated per survey notes
94P4490	No chiller surveyed; evap coolers surveyed as bu ah w/o chiller.	Changed to packaged evap system
94S1762	No chiller surveyed	Built up system eliminated per survey

3.4.1 Packaged HVAC Heat Pumps with the Wrong Fuel Type

These site had heat pumps indicated, but with fuel type "Other". They were all changed to "Electric."

SITEID	vsys	cac_no	CACTYPE	CACFUEL
94P2839	2	AC-1B	2 : Single Package Rooftop Heat Pump	Other
94P2910	1	AC-2	2 : Single Package Rooftop Heat Pump	Other
94P3104	1	AC-1	9 : Water Loop Heat Pump	Other
94P3104	1	AC-1B	9 : Water Loop Heat Pump	Other
94P3104	1	AC-2B	9 : Water Loop Heat Pump	Other
94P3104	1	AC-3B	9 : Water Loop Heat Pump	Other
94P3104	1	AC-1C	9 : Water Loop Heat Pump	Other
94P3104	1	AC-2C	9 : Water Loop Heat Pump	Other
94P3104	1	AC-3C	9 : Water Loop Heat Pump	Other
94P7168	1	AC-2B	2 : Single Package Rooftop Heat Pump	Other
94P7168	1	AC-1	2 : Single Package Rooftop Heat Pump	Other
94P7360	1	AC-1C	9 : Water Loop Heat Pump	Other
94P7360	1	AC-3B	9 : Water Loop Heat Pump	Other
94P7360	1	AC-2B	9 : Water Loop Heat Pump	Other
94P7360	1	AC-1B	9 : Water Loop Heat Pump	Other
94P7360	1	AC-3	9 : Water Loop Heat Pump	Other
94P7360	1	AC-1	9 : Water Loop Heat Pump	Other
94P7360	1	AC-2	9 : Water Loop Heat Pump	Other
94S0036A	1	AC-2	9 : Water Loop Heat Pump	?
94S0036A	1	AC-3B	9 : Water Loop Heat Pump	Other
94S0036B	1	AC-2B	9 : Water Loop Heat Pump	Other
94S0036B	1	AC-1B	9 : Water Loop Heat Pump	Other
94S0036B	1	AC-1	9 : Water Loop Heat Pump	Other
94S0036B	1	AC-2	9 : Water Loop Heat Pump	Other
94S0036B	1	AC-3	9 : Water Loop Heat Pump	Other
94S0036B	1	AC-3B	9 : Water Loop Heat Pump	Other
94S0113A	1	AC-3	10 : Dual Fuel Heat Pump	Other
94S2685	1	AC-1	4 : Split System Heat Pump	Other
94S5120A	1	AC-1	2 : Single Package Rooftop Heat Pump	Other
94S5287	2	AC-2C	2 : Single Package Rooftop Heat Pump	Other
96P120	1	AC-1	4 : Split System Heat Pump	Other
96P1410	2	AC-2	4 : Split System Heat Pump	Other
96P144	1	AC-2	2 : Single Package Rooftop Heat Pump	Other
96P1820	1	AC-1	9 : Water Loop Heat Pump	Other
96P1958	1	AC-1D	2 : Single Package Rooftop Heat Pump	Other

96P1958	3	AC-1B	2 : Single Package Rooftop Heat Pump	Other
96P1958	5	AC-2C	2 : Single Package Rooftop Heat Pump	Other
96P1958	5	AC-3B	2 : Single Package Rooftop Heat Pump	Other
96P1958	5	AC-1C	2 : Single Package Rooftop Heat Pump	Other
96P1958	6	AC-3C	2 : Single Package Rooftop Heat Pump	Other
96P208	1	AC-1	4 : Split System Heat Pump	Other
96P208	1	AC-2	4 : Split System Heat Pump	Other
96P213	2	AC-3	2 : Single Package Rooftop Heat Pump	None
96P2138	1	AC-2	6 : PTHP	None
96P221	2	AC-2	2 : Single Package Rooftop Heat Pump	Other
96P2298	1	0	2 : Single Package Rooftop Heat Pump	Other
96P2380	2	AC-2	2 : Single Package Rooftop Heat Pump	Other
SITEID	**vsys**	**cac_no**	**CACTYPE**	**CACFUEL**
96P2380	3	AC-3	2 : Single Package Rooftop Heat Pump	Other
96P2380	4	AC-1B	2 : Single Package Rooftop Heat Pump	Other
96P2380	5	AC-2B	2 : Single Package Rooftop Heat Pump	Other
96P2430	1	AC-1	2 : Single Package Rooftop Heat Pump	None
96P31	1	AC-1	2 : Single Package Rooftop Heat Pump	Other
96P312	3	AC-2	2 : Single Package Rooftop Heat Pump	Other
96P355	1	AC-1	2 : Single Package Rooftop Heat Pump	?
96S1175	2	AC-1	9 : Water Loop Heat Pump	Other
96S1175	2	AC-2	9 : Water Loop Heat Pump	Other
96S1175	2	AC-3	9 : Water Loop Heat Pump	Other
96S1175	2	AC-1B	9 : Water Loop Heat Pump	Other
96S1175	2	AC-2B	9 : Water Loop Heat Pump	Other
96S123	3	AC-3	2 : Single Package Rooftop Heat Pump	Other
96S131	1	AC-2B	2 : Single Package Rooftop Heat Pump	Other
96S131	1	AC-3	2 : Single Package Rooftop Heat Pump	Other
96S131	1	AC-1B	2 : Single Package Rooftop Heat Pump	Other
96S17	4	AC-2C	2 : Single Package Rooftop Heat Pump	Other
96S22	3	AC-1B	4 : Split System Heat Pump	Other
96S22	5	0	4 : Split System Heat Pump	Other
96S2423	4	AC-1B	4 : Split System Heat Pump	Other
96S2598	1	AC-3	2 : Single Package Rooftop Heat Pump	Other
96S2598	1	AC-1B	2 : Single Package Rooftop Heat Pump	Other
96S26	1	AC-1D	2 : Single Package Rooftop Heat Pump	Other
96S2673	1	AC-1B	2 : Single Package Rooftop Heat Pump	Other
96S2673	1	AC-3B	2 : Single Package Rooftop Heat Pump	Other
96S2673	1	AC-2B	2 : Single Package Rooftop Heat Pump	Other
96S2673	2	AC-1	2 : Single Package Rooftop Heat Pump	Other
96S2673	2	AC-2	2 : Single Package Rooftop Heat Pump	Other
96S2673	2	AC-3	2 : Single Package Rooftop Heat Pump	Other
96S2763	1	AC-1	2 : Single Package Rooftop Heat Pump	Other
96S2763	1	AC-2	2 : Single Package Rooftop Heat Pump	Other
96S42	2	AC-1	4 : Split System Heat Pump	Other
96S488	1	AC-1	2 : Single Package Rooftop Heat Pump	Other
96S488	1	AC-2	2 : Single Package Rooftop Heat Pump	Other
96S640	1	AC-3	2 : Single Package Rooftop Heat Pump	Other
96S640	1	AC-1D	2 : Single Package Rooftop Heat Pump	Other
96S640	1	AC-3C	4 : Split System Heat Pump	Other
96S640	1	AC-2C	4 : Split System Heat Pump	Other
96S640	1	AC-1C	2 : Single Package Rooftop Heat Pump	Other
96S640	1	AC-3B	2 : Single Package Rooftop Heat Pump	Other

96S640	1	AC-1B	2 : Single Package Rooftop Heat Pump	Other
96S640	1	AC-2	2 : Single Package Rooftop Heat Pump	Other
96S640	1	AC-1	2 : Single Package Rooftop Heat Pump	Other
96S640	1	AC-2B	2 : Single Package Rooftop Heat Pump	Other
96S640	3	AC-3D	8 : Window/Wall HP	Other
96S70	1	AC-3B	4 : Split System Heat Pump	Other
96S70	1	0	2 : Single Package Rooftop Heat Pump	Other
96S70	2	AC-1	2 : Single Package Rooftop Heat Pump	Other
96S70	2	AC-2	2 : Single Package Rooftop Heat Pump	Other

3.4.2 Thermostat Data

For the sites listed in the following tables, the thermostat setpoint data were cleaned to make the definition of "system off" consistent across the databases. The convention followed is:

Heating setpoints: if the system is "off", setpoint value is set to 0.
Cooling setpoints: if the system is "off", setpoint value is set to 99.

The following records were affected:

SITEID	AREA	HSPOCC (original)	HSPOCC (cleaned)
94S5052	1	99	0
94S5754A	1	99	0
94S5169	2	99	0
94S2004B	1	99	0
94S1617B	1	99	0
94P7383	1	99	0
94P3836	1	99	0
94P4310	1	99	0
94S3058	1	99	0
94S0074	1	99	0
94S0074	2	99	0
94S0097	1	99	0
94S5399	1	99	0
94P3332	1	99	0
94P3365C	1	99	0
94S5429	2	99	0
94P3299	1	99	0
94S5429	1	99	0
94P7370	1	99	0
94P7261	1	99	0
94P7269	1	99	0
94P7288	1	99	0
94P7304X	1	99	0
94P7355	1	99	0
94P7360	1	99	0
94P7424A	1	99	0
94P7367B	1	99	0
94P7168	1	99	0
94P7376A	1	99	0
94P7378	1	99	0
94P7383	1	99	0
94P7384	1	99	0
94P7395	1	99	0
94P7411	1	99	0
94P4436	1	99	0
94P7361	1	99	0
94P4934	2	99	0
94P4563	2	99	0

SITEID	AREA	HSPUNOCC (original)	HSPUN-OCC (cleaned)
94P4747	1	99	0
94P4871A	1	99	0
94P4871B	1	99	0
94P4875	1	99	0
94P4882	1	99	0
94P7203	1	99	0
94P4934	1	99	0
94P7168	2	99	0
94P4964A	1	99	0
94P4964B	1	99	0
94P7152	1	99	0
94P7156	1	99	0
94P7158A	1	99	0
94P7158B	1	99	0
94P7424B	1	99	0
94P4905	1	99	0
94S5429	2	99	0
94S1701	1	99	0
94S1750	1	99	0
94S5628	1	99	0
94S2004B	1	99	0
94S2158	1	99	0
94S5540	1	99	0
94P7414	1	99	0
94S2269	1	99	0
94S0139	1	99	0
94S2471	1	99	0
94S2540	1	99	0
94S5429	1	99	0
94S2679	1	99	0
94S3025	1	99	0
94S3058	1	99	0
94S5231	1	99	0
94S2233	1	99	0
94S0076	1	99	0
94P7424C	1	99	0
94S0007X	1	99	0
94S0015	2	99	0
94S0018	1	99	0
94S0023	1	99	0
94S0053	1	99	0
94S0062	1	99	0
94S1617B	1	99	0
94S0075	1	99	0
94S0145	1	99	0
94S0097	1	99	0
94S0101	1	99	0
94S0119X	1	99	0

94S0135A	1	99	0

SITE ID	AREA	CSPOCC (original)	CSPOCC (original)
94S0135B	1	99	0
94S0135B	2	99	0
94P7392	1	99	0
94S0074	2	99	0
94P4310	1	99	0
94P3392B	1	99	0
94P3104	1	99	0
94P2731A	1	99	0
94P3392A	1	99	0
94P3332	1	99	0
94P2731B	1	99	0
94P3253	1	99	0
94P2949	1	99	0
94P2881	1	99	0
94P3615	1	99	0
94P3836	1	99	0
94S2469	1	-99	0
94P3299	1	-99	0
94S1677	1	-99	0
94S0074	1	-99	0
94P7424X	1	-99	0
94P3473	1	-99	0
94P3365C	1	-99	0
94P2876	1	-99	0
94P4915A	1	-99	0
94S2732	1	-99	0
94S5141	2	-99	0
94S5399	1	-99	0
94S5169	2	-99	0
94S5287	2	-99	0
94S2982	1	-99	0
94S5751	1	-99	0
94S5754A	1	-99	0
94S5052	1	-99	0
94S5821	1	-99	0
96P329	2	0	99
96P2298	2	0	99
96P1376	1	0	99
96P1376	2	0	99
94P3802	1	0	99
96P363	1	0	99
96P1696	2	0	99
96P212	2	0	99
96P337	2	0	99
96P1301	2	0	99
96P1701	2	0	99
96P1499	2	0	99
96P327	2	0	99
96P315	1	0	99
96P1790	1	0	99

96P1818	2	0	99

SITEID	AREA	CSPUNOCC (original)	CSPUN-OCC (cleaned)
96P183	2	0	99
94P7312	1	0	99
94P7254	1	0	99
96P213	2	0	99
96P1701	1	0	99
94P4487	1	0	99
94P2966	1	0	99
96P1014	3	0	99
96P97	1	0	99
96P248	1	0	99
96P76	3	0	99
94P3550	1	0	99
96P1250	2	0	99
96P2312	2	0	99
94P3365B	1	0	99
96P82	1	0	99
96P1157	1	0	99
96P57	2	100	99
94P7269	1	-99	99
94P3662	1	-99	99
94P7260	1	-99	99
94S2982	1	-99	99
94P7346	1	-99	99
94S5052	1	-99	99
94P7424X	1	-99	99
94P4928	1	-99	99
94S2471	1	-99	99
94P5024A	1	-99	99
94P5024B	1	-99	99
94S5169	2	-99	99
94S5287	2	-99	99
94S5821	1	-99	99
94S5751	1	-99	99
94P4882	1	-99	99
94P3365C	1	-99	99
94S2732	1	-99	99
94S1701B	1	-99	99
94P2876	1	-99	99
94S1907A	1	-99	99
94P3299	1	-99	99
94S1762	2	-99	99
94S1677	4	-99	99
94S1762	1	-99	99
96P1376	2	0	99
96P1696	2	0	99
94P7254	1	0	99
96P97	1	0	99
96P1376	1	0	99
96P294	1	0	99

96P213	2	0	99
96P212	2	0	99
SITEID	**AREA**	**CSPUNOCC (original)**	**CSPUN-OCC (cleaned)**
96P1499	2	0	99
96P2431	1	0	99
96P1701	1	0	99
96P1701	2	0	99
96P2298	2	0	99
96P248	1	0	99
94P7312	1	0	99
96P76	3	0	99
96P1301	2	0	99
96P2312	2	0	99
96P1790	1	0	99
96P1818	2	0	99
96P183	2	0	99
96P82	1	0	99
96P327	2	0	99
94P3365B	1	0	99
94P3550	1	0	99
94P4487	1	0	99
94P2966	1	0	99
96P1157	1	0	99
96P329	2	0	99
96P315	1	0	99
96P1014	3	0	99
94P3802	1	0	99
96P1250	2	0	99
96P363	1	0	99
96P337	2	0	99
96P2136	1	120	99
96S2688	1	115	99
96S7	1	100	99
96S215	1	100	99
96S4	1	100	99
96S59	1	100	99
96P57	2	100	99

Thermostat data for the following sites were changed so that they make sense. Often the setpoints were reversed.

		OLD				**NEW**			
SITEID	**AREA**	**HSPocc**	**CSPocc**	**HSPunocc**	**CSPunc**	**HSPocc**	**CSPocc**	**HSPunocc**	**CSPun-**
94P2741	1	79	74	79	74	74	79	74	79
94P3198	1	80	71	80	71	71	80	71	80
94P3198	2	80	71	80	71	71	80	71	80
94P3204A	1	75	67	75	78	75	75	67	78
94P3204B	1	75	72	75	78	75	75	72	78
94P3265	1	75	72	75	72	72	75	72	75
94P3265	2	75	72	75	72	72	75	72	75
94P3819	1	72	68	72	68	68	72	68	72
94P4337	1	74	72	74	80	74	74	72	80

94P4386	1	72	68	72	68	68	72	68	72
94P4647	1	72	68	72	68	68	72	68	72
94P7151X	1	72	67	72	67	67	72	67	72

		OLD				NEW			
SITEID	**AREA**	**HSPocc**	**CSPocc**	**HSPunocc**	**CSPunc**	**HSPocc**	**CSPocc**	**HSPunocc**	**CSPun-**
94P7155X	1	72	68	72	68	68	72	68	72
94P7160	1	74	60	74	60	60	74	60	74
94P7160	2	74	60	74	60	60	74	60	74
94P7187	1	73	68	50	99	68	73	50	99
94P7236A	1	74	72	74	72	72	74	72	74
94P7236B	1	74	72	74	72	72	74	72	74
94P7262	1	72	70	72	70	70	72	70	72
94P7337	1	72	69	72	69	69	72	69	72
94P7373	1	72	70	72	70	70	72	70	72
94P7376	1	74	68	74	68	68	74	68	74
94P7376A	1	74	68	0	99	68	74	0	99
94P7378	1	74	72	0	72	72	72	0	74
94P7381	1	72	68	72	68	68	72	68	72
94P7381	2	72	68	72	68	68	72	68	72
94P7389	1	74	72	74	75	74	74	72	75
94P7389	2	74	72	74	75	74	74	72	75
94P7407X	1	74	70	74	70	70	74	70	74
94P7407X	2	74	70	74	70	70	74	70	74
94S0069	1	76	74	76	74	74	76	74	76
94S0108	1	74	72	74	72	72	74	72	74
94S1701	1	75	70	0	99	70	75	0	99
94S2679	1	72	70	0	99	70	72	0	99
96P1122	1	72	70	72	70	70	72	70	72
96P1122	2	72	70	72	70	70	72	70	72
96P1122	3	72	70	72	70	70	72	70	72
96P1182	1	72	69	72	69	69	72	69	72
96P1274	1	72	70	72	70	70	72	70	72
96P1412	1	75	72	60	70	70	72	60	75
96P1844	1	68	50	68	50	68	99	68	99
96P327	1	70	68	50	99	68	70	50	99
96P357	1	72	70	50	80	70	72	50	80
96P358	1	72	70	64	99	70	72	64	99
96P358	2	72	70	64	99	70	72	64	99
96P358	3	72	70	64	99	70	72	64	99
96P76	1	72	70	50	99	70	72	50	99
96P76	4	72	70	50	99	70	72	50	99
96S1591	1	78	72	60	85	72	75	60	85
96S24	0	74	72	55	99	72	74	55	99
96S2582	1	70	68	60	90	68	70	60	90
96S2778	1	72	71	64	85	71	72	64	85
96S2778	2	72	71	64	85	71	72	64	85
96S39	2	62	61	50	90	61	62	50	90
96S5075	1	72	70	72	70	70	72	70	72
96S5075	2	72	70	72	70	70	72	70	72
96S722	1	78	77	78	77	77	78	77	78
96S722	2	78	72	78	72	72	78	72	78

3.5 Miscellaneous Changes

The following changes were made during the final phases of aggregate table development.

3.5.1 Refrigeration Changes

DOE-2 can only model refrigeration systems in conditioned zones.

94P7401 – Cases specified for zone 3 without size or product; caused DOE-2 to crash. Records removed.

94S2982 – Refrigeration system with 2 remote compressors specified in an unconditioned zone (zone 6). Compressor location changed to integral.

94P3299 – Refrigeration with remote compressors specified in an unconditioned zone. Compressor location changed to inside.

3.5.2 Equipment Schedules

94S2471 – Full day schedule for plugs was set at 2000 for all hours. Changed to follow the lighting schedule.

3.5.3 Chiller Capacities Removed

For sites where only a portion of the space served by the chillers was surveyed, it is necessary to let the chillers self-size in the DOE-2 models.

94P7160 – Three records, all 350 tons.

94S2679 – One record, 75 tons.

3.5.4 Food Service Change

96S1499 – Two kBtuh entries off by x1000. 30000 changed to 30; 3000 changed to 3.