

*INITIAL STATEMENT OF REASONS*  
*Documents Relied upon*

<u>CHAPTERS</u>	<u>DOCUMENT</u>	<u>RES/ NRES</u>	<u>TOPIC</u>
<b>GENERAL</b>			
	<a href="#"><u>Initial Study/Proposed Negative Declaration for the 2013 Building Energy efficiency Standards for Residential and Nonresidential Buildings</u></a>		<u>GENERAL</u>
	<a href="#"><u>Department of Finance Standard Form 399, Economic and Fiscal Impact Statement, to comply with Gov. Code sections 11346.3 and 11346.5</u></a>		<u>GENERAL</u>
	<a href="#"><u>Methodology for Determining the Statewide Impact of Title 24-2013 Nonresidential Standards (Memo), Architectural Energy Corporation, January 17, 2012</u></a>		<u>GENERAL</u>
	<a href="#"><u>Nonresidential Savings Projection (Spreadsheet), Architectural Energy Corporation, February 2, 2012</u></a>		<u>GENERAL</u>
	<a href="#"><u>Efficiency Measures included in Analysis of Retrofit Savings Impacts for 2013 Standards (Memo), Architectural Energy Corporation, January 4, 2012</u></a>		<u>GENERAL</u>
	<a href="#"><u>Retrofit Impact Analysis (Spreadsheet), Architectural Energy Corporation, December 27, 2011</u></a>		<u>GENERAL</u>
	<a href="#"><u>Residential Impact Analysis Version 3 (Spreadsheet), Ken Nittler, EnerComp, December 20, 2011</u></a>		<u>GENERAL</u>
<b>SUBCHAPTER 2</b>	<b>All Mandatory Equipment</b>		
	<a href="#"><u>CASE Initiative "Upgradeable Setback Thermostats", October 2011</u></a>	NR (res)	<u>HVAC</u>
	<a href="#"><u>CASE Initiative "Solar Ready Homes and Solar Oriented Development", September 2011</u></a>	RES	<u>SOLAR &amp; WATER HEATING</u>
	<a href="#"><u>CASE Initiative "Cooling Tower Water Savings", October 2011</u></a>	NR	<u>HVAC</u>
	<a href="#"><u>CASE Initiative "Nonresidential Solar-ready Buildings", September 2011</u></a>	NR	<u>SOLAR &amp; WATER HEATING</u>
	<a href="#"><u>CASE Initiative "Outdoor Lighting and Controls", October 2011</u></a>	NR	<u>LIGHTING AND POWER CONTROL</u>
	<a href="#"><u>Technical Bulletin – Insulation Systems, Johns Manville CORBOND III® Spray Foam Air Barrier Advantage, IST11-007R, October 27, 2011</u></a>	NR	<u>ENVELOPE</u>
	<a href="#"><u>Air Barrier Assemblies, Air Barrier Assembly Association, January 5, 2012</u></a>	NR	<u>ENVELOPE</u>
	<a href="#"><u>"How To Bid An Air Barrier", Wall Guardian - Vapor Permeable Air Barrier Systems, STS Coatings, February 6, 2012</u></a>	NR	<u>ENVELOPE</u>
	<a href="#"><u>Prototype Building Costs – Air Barriers, David Ware Spreadsheet, February 6, 2012</u></a>	NR	<u>ENVELOPE</u>
	<a href="#"><u>E-Mail Exchange between David Ware (CEC Staff) and Lynn Walters (STS Coatings), Cost Data for Air Barriers, January 9, 2012</u></a>	NR	<u>ENVELOPE</u>

[E-Mail Exchange between David Ware \(CEC Staff\) and Lynn Walters \(STS Coatings\), Cost Data for Air Barriers, January 10, 2012](#) NR ENVELOPE

### SUBCHAPTER 3

### NR Mandatory Equipment

[CASE Initiative "Outside Air", October 2011](#) NR HVAC

[CASE Initiative "Guest Room Occupancy Controls", October 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Parking Garage Lighting and Controls", October 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Refrigerated Warehouse", 31 October 2011](#) NR COVERED PROCESSES

[CASE Initiative "Supermarket Refrigeration", October 2011](#) NR COVERED PROCESSES

[CASE Initiative "Process Boilers", October 2011](#) NR COVERED PROCESSES

[CASE Initiative "Compressed Air Systems", November 2011](#) NR COVERED PROCESSES

[CASE Initiative "Commercial Boilers", October 2011](#) NR HVAC

[CEC letter response to AHRI, Boilers and Water Heaters, January 20, 2012](#) NR SOLAR AND WATER HEATING

[Memo to Boiler Manufacturers from Matt Tyler, PECE \(CASE author\), October 5, 2011](#) NR HVAC

[CASE Initiative "Design Phase Commissioning", October 2011](#) NR HVAC

### SUBCHAPTER 4

### NR Mandatory Lighting Controls and Building Power

[CASE Initiative "Nonresidential Daylighting", October 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Control of Egress Lighting", October 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Measure Information Template – Indoor Lighting Controls", October 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Lighting in Multifamily and Hotel Corridors", October 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Automated Lighting Controls and Switching Requirements in Warehouses and Libraries", September 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Outdoor Lighting and Controls", October 2011](#) NR LIGHTING AND POWER CONTROL

[CASE Initiative "Plug Load Circuit Controls", October 2011](#) NR LIGHTING AND POWER CONTROL

· <a href="#">CASE Initiative “Indoor Lighting – Retail”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
· <a href="#">Letter from Engineered Lighting Products dated September 14, 2001</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
· <a href="#">CASE Initiative “Requirements for Controllable Lighting”, March 21, 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
· <a href="#">CASE Initiative “Nonresidential Demand Responsive Lighting Controls”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>

**SUBCHAPTER 5**

**NR General Performance and Prescriptive**

· <a href="#">CASE Initiative “Nonresidential Cool Roofs”, October 2011</a>	NR	<u>ENVELOPE</u>
· <a href="#">Draft Nonresidential Cool Roof Consolidated Cost Summary, Architectural Energy Corporation, February 6, 2012</a>	NR	<u>ENVELOPE</u>
· <a href="#">CASE Initiative “Nonresidential &amp; High-Rise Residential Fenestration Requirements”, October 2011</a>	NR	<u>ENVELOPE</u>
· <a href="#">CASE Initiative “Light Commercial Unitary HVAC”, November 2011</a>	NR	<u>HVAC</u>
· <a href="#">Carrier Comments on Fan Control and Integrated Economizers, October 30, 2011</a>	NR	<u>HVAC</u>
· <a href="#">Taylor Engineering Response to AHRI Comments, Fan Control and Integrated Economizers, November 4, 2011</a>	NR	<u>HVAC</u>
· <a href="#">Carrier Response and Comments on Stein Response to AHRI, Fan Control and Integrated Economizers, November 8, 2011</a>	NR	<u>HVAC</u>
· <a href="#">CASE Initiative “Reduce Reheat”, September 2011</a>	NR	<u>HVAC</u>
· <a href="#">CASE Initiative “Kitchen Ventilation”, September 2011</a>	NR	<u>HVAC</u>
· <a href="#">CAL SMACNA Kitchen Ventilation Title 24 Revisions – REBUTTAL, December 6, 2011</a>	NR	<u>HVAC</u>
· <a href="#">CASE Initiative “Laboratory Exhaust Systems”, September 2011</a>	NR	<u>HVAC</u>
· <a href="#">CASE Initiative “Data Centers”, September 2011</a>	NR	<u>HVAC</u>
· <a href="#">CASE Initiative “Nonresidential Daylighting”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
· <a href="#">CASE Initiative “Measure Information Template – Indoor Lighting Controls”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
· <a href="#">CASE Initiative “Outdoor Lighting and Controls”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
· <a href="#">CASE Initiative “Indoor Lighting – Retail”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>

· <a href="#">Letter from Engineered Lighting Products dated September 14, 2001</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
· <a href="#">CASE Initiative “Nonresidential Demand Responsive Lighting Controls”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>

**SUBCHAPTER 6 NONRESIDENTIAL Additions Alterations Repairs**

· <a href="#">CASE Initiative “Lighting Alterations and Modifications in Place”, October 2011</a>	NR	<u>LIGHTING AND POWER CONTROL</u>
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**SUBCHAPTER 7 Residential Mandatory Features**

· <a href="#">CASE Initiative “Residential Ducts – Duct Sealing, Cooling Coil Airflow, Fan Watt Draw, and Measured Static Pressure”, October 2011</a>	RES	<u>HVAC</u>
· <a href="#">CASE Initiative, “Duct Sealing Requirements upon HVAC or Duct-System Replacement: Light Commercial Buildings”, 2005 Building Energy Efficiency Standards Update, January 21, 2003</a>	RES	<u>HVAC</u>
· <a href="#">CASE Initiative “Single Family Water Heating Distribution System Improvements”, September 2011</a>	RES	<u>SOLAR &amp; WATER HEATING</u>
· <a href="#">CASE Initiative “Multi-Head Showers and Lower-Flow Shower Heads”, September 2011</a>	RES	<u>SOLAR &amp; WATER HEATING</u>
· <a href="#">CASE Initiative “Residential Zoned Ducted HVAC Systems”, September 2011</a>	RES	<u>HVAC</u>
· <a href="#">CEC Letter Response to AHRI, Residential Zoned Air Conditioning Systems, December 2, 2011</a>	RES	<u>HVAC</u>
· <a href="#">Steady-State Analysis of Single-Speed Residential Split Systems with Zoning Bypass, C. Heflin and F.J. Keller, P.E., ASHRAE Transactions Research, #3693 (available from ASHRAE)</a>	RES	<u>HVAC</u>
· <a href="#">Sacramento Zoned HVAC System Performance Test, Rick Chitwood, Chitwood Energy Management Inc., September 27, 2011</a>	RES	<u>HVAC</u>
· <a href="#">CASE Initiative “High-Efficiency Water Heater Ready”, October 2011</a>	RES	<u>SOLAR &amp; WATER HEATING</u>
· <a href="#">CASE Initiative “Residential Plug-load Controls”, October 2011</a>	RES	<u>LIGHTING AND POWER CONTROL</u>
• PIER report (Wilcox, Proctor, Chitwood) - Efficiency Characteristics and Opportunities for New California Homes (ECO) PIR-08-019	RES	<u>HVAC</u>
· <a href="#">ASHRAE Standard 62.2 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings with addenda in 2011 supplement.</a>	RES	<u>HVAC</u>
· <a href="#">ANSI/AHRI Standard 680 - 2009 Standard for Performance Rating of Residential Air Filter Equipment</a>	RES	<u>HVAC</u>
· <a href="#">Honeywell letter from Stan Zywicki to Mazi Shirakh, on the subject of Air Filtration, October 30, 2011</a>	RES	<u>HVAC</u>
· <a href="#">Proposal Information Template for Air Filter Labeling, from the Investor-Owned Utilities PGC Codes &amp; Standards Program, submitted to CEC Docket 11-AAER-1, October 3, 2011</a>	RES	<u>HVAC</u>

<a href="#">· <u>LBNL-47382, Evaluation of Flow Hood Measurements for Residential Register Flows</u></a>	RES	<u>HVAC</u>
<a href="#">· <u>LBNL-45959, Practical Diagnostics for Evaluating Residential Commissioning Metrics</u></a>	RES	<u>HVAC</u>
<a href="#">· <u>ASHRAE Standard 62.2 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings</u></a>	RES	<u>HVAC</u>
<a href="#">· <u>ASHRAE Standard 193 Method of Test for Determining the Air Tightness of HVAC Equipment</u></a>	RES	<u>HVAC</u>
<a href="#">· <u>CASE Initiative “Residential Lighting”, October 2011</u></a>	RES	<u>LIGHTING AND POWER CONTROL</u>

**SUBCHAPTER 8**

**Residential General Performance and Prescriptive**

<a href="#">· <u>CASE Initiative “Increased Wall Insulation”, October 2011</u></a>	RES	<u>ENVELOPE</u>
<a href="#">· <u>CASE Initiative “Multifamily Central DHW and Solar Water Heating”, October 2011</u></a>	RES	<u>SOLAR &amp; WATER HEATING</u>
<a href="#">· <u>CASE Initiative “Residential Lighting”, October 2011</u></a>	RES	<u>LIGHTING AND POWER CONTROL</u>
<a href="#">· <u>CASE Initiative “Residential Roof Envelope Measures”, October 2011</u></a>	RES	<u>ENVELOPE</u>
<a href="#">· <u>CASE Initiative “Single Family Water Heating Distribution System Improvements”, September 2011</u></a>	RES	<u>SOLAR &amp; WATER HEATING</u>
<a href="#">· <u>E-Mail Exchange between Marc Hoeschele (Davis Energy Group) and Harry Moos (HM Consulting), “Plumbing Changes to Code”, February 2, 2012</u></a>	RES	<u>SOLAR &amp; WATER HEATING</u>
<a href="#">· <u>CASE Initiative “Residential Window Efficiency”, October 2011</u></a>	RES	<u>ENVELOPE</u>
<a href="#">· <u>Keith A. Temple, P.E., Comments and Recommendations for Mini-Split Air Conditioner and Heat Pump Systems, CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.2 Task Report</u></a>	RES	<u>HVAC</u>
<a href="#">· <u>CASE Initiative “Night Ventilation Cooling Compliance Option”, September 2011</u></a>	RES	<u>HVAC</u>
<a href="#">· <u>Cost Estimate Comparison – 2008 Prescriptive Requirements to 2013 Prescriptive Requirements, Consol, January 18, 2012</u></a>	RES	<u>GENERAL</u>
<a href="#">· <u>Cost Estimate Comparison – 2008 Prescriptive Requirements to 2013 Prescriptive Requirements, CEC Staff, January 9, 2012</u></a>	RES	<u>GENERAL</u>
<a href="#">· <u>Residential Building Costs Spreadsheet, Bruce Wilcox, P.E., February 6, 2012</u></a>	RES	<u>GENERAL</u>
<a href="#">· <u>Advanced Framing: Using Wood Efficiently From Optimizing Design to Minimizing the Dumpster, Building Science Corporation Research Report 0201, August 2002</u></a>	RES	<u>ENVELOPE</u>
<a href="#">· <u>ToolBase TECHSPECS web page, Advanced Framing Techniques, Partnership for Advanced Technology in Housing (PATH), February 6, 2012</u></a>	RES	<u>ENVELOPE</u>

<a href="#">Energy Efficiency Fact Sheet, Externally Applied Building Insulation, Washington State University, Extension Energy Program, December 2008</a>	RES	<u>ENVELOPE</u>
<a href="#">Technology Fact Sheet, Advanced Wall Framing, Office of Building Technology, State and Community Programs, Energy Efficiency and Renewable Energy, U.S. Department of Energy</a>	RES	<u>ENVELOPE</u>

**SUBCHAPTER 9**

**Res Additions and Alterations**

<a href="#">2nd Revised CABEC Position on 2013 Alterations and Additions, CABEC Standards Committee, September 16, 2011</a>	RES	<u>GENERAL</u>
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**REFERENCE APPENDICES**

**REFERENCE APPENDICES**

<a href="#">CASE Initiative "Acceptance Requirements #1: Effectiveness and Compliance (Based on PIER Initiative)", October 2011</a>	NR	<u>HVAC</u>
<a href="#">CASE Initiative "Acceptance Requirements #2: Based on Retro-commissioning Failure Modes", October 2011</a>	NR	<u>HVAC</u>
<a href="#">E-Mail Exchange between Jeff Miller (CEC) and Iain Walker (LBNL), "Proposed Flow Hood Specs in RA# for Measurement of Central Forced Air System Return Air Grille Airflow", December 20, 2011</a>	RES	<u>HVAC</u>
<a href="#">E-Mail Exchange between Jeff Miller (CEC) and Iain Walker (LBNL), "Proposed Flow Hood Specs in RA# for Measurement of Central Forced Air System Return Air Grille Airflow", January 3, 2012</a>		
<a href="#">E-Mail Exchange between Jeff Miller (CEC) and Rick Chitwood (Chitwood Energy), "Elimination of Standard Flow Hoods – Answering Stakeholder Concerns", January 26, 2012</a>	RES	<u>HVAC</u>
<a href="#">Excerpt from NEBB TAB Procedural Standards, Flow Measuring Hood Procedures, October 3, 2011</a>	RES	<u>HVAC</u>
<a href="#">Excerpt from Powered Flow Hood Manual, Chapter 13 Using the Duct Blaster as a Powered Capture Hood, The Energy Conservatory, December 13, 2011</a>	RES	<u>HVAC</u>
<a href="#">2009 Bylaws of the International Accreditation Forum, Inc., Issue 6, (IAF PL 2:2009)</a>	RES	<u>see IAF</u>
<a href="#">E-Mail Exchange between Jeff Miller (CEC) and Michael Shows (United Laboratories), Testing Lab for Air-Handling Unit Leakage Rates using ASHRAE Standard 193-2010, January 4, 2012</a>	RES	<u>HVAC</u>
<a href="#">International Accreditation Forum, IAF MLA and IAF USA Members and Signatories web pages, January 10, 2012</a>	RES	<u>HVAC</u>
<a href="#">International Accreditation Service, Certificate of Accreditation, United Laboratories Inc., January 4, 2012</a>	RES	<u>HVAC</u>
<a href="#">Keith A. Temple, P.E., Proposed Improvements to Residential HVAC Diagnostic Test Protocols, CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.1A, E Task Report</a>	RES	<u>HVAC</u>
<a href="#">Keith A. Temple, P.E., Subcooling Dependence on Condenser Airflow for Unitary Air Conditioning Systems with TxV Expansion Device, CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.1B Task Report, June 9, 2011</a>	RES	<u>HVAC</u>

<a href="#"><u>· Keith A. Temple, P.E., Efficiency and Subcooling Variation with Refrigerant Charge for Unitary Air Conditioning Systems with TxV Expansion Device, CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.1B Task Report, June 9, 2011</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· Keith A. Temple, P.E., Review of Requirements and Recommendations for Charge Indicator Display (CID), CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.1C Task Report, June 30, 2011</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· Keith A. Temple, P.E., Comments and Recommendations for Saturation Temperature Measurement Sensors (STMS), CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.1D Task Report, August 22, 2011</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· Keith A. Temple, P.E., Comments and Recommendations for Mini-Split Air Conditioner and Heat Pump Systems, CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.2 Task Report, September 27, 2011</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· Keith A. Temple, P.E., Supplemental Data for Weigh-In Charge Method, CEC Contract 400-09-001, Work Authorization # 6, Subtask 2.3 Task Report, December 5, 2011</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· Lennox HPXA19 Outdoor Unit Installation Instructions, August 16, 2010</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· CASE Initiative “Residential Refrigerant Charge Testing and Related Issues, December 2011</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· E-Mail Exchange between Jeff Miller (CEC) and Keith Temple , Updated Draft CASE Report on Refrigerant Charge, December 30, 2011</u></a>	RES	<u>HVAC</u>
<a href="#"><u>· E-Mail Exchange between Jeff Miller (CEC) and Glen Friedman (Taylor Engineering), RE: Draft 2013 Appendix NA2 – Non-Residential Air Distribution Systems Leakage Testing, January 26, 2012</u></a>	RES	<u>HVAC</u>

**PART 11 –  
VOLUNTARY  
APPENDIXES**

**PART 11 – VOLUNTARY APPENDIXES, ENERGY CHAPTERS**

<a href="#"><u>· “What Do Consumers Want from their Hot Water Systems?”, Gary Klein, High Performance Hot Water Systems, Technical Series, Third Quarter 200</u></a>	RES	<u>SOLAR &amp; WATER HEATING</u>
<a href="#"><u>· CASE Initiative “Solar Water Heating – Residential and Specialty Commercial”, October 2011</u></a>	RES	<u>SOLAR &amp; WATER HEATING</u>

**EIR INITIAL  
STUDY**

**EIR INITIAL STUDY**

<a href="#"><u>Emission Displacement from Electricity savings for the 2013 Building Energy Efficiency Standards</u></a>		<u>GEN</u>
<a href="#"><u>2013 Building Energy Efficiency Standards Initial Study Calculations</u></a>		<u>GEN</u>
<a href="#"><u>2013 Initial Study Air and Water Emission Factors</u></a>		<u>GEN</u>
<a href="#"><u>2013 CIRB analysis</u></a>		<u>GEN</u>

