GENERAL INFORMATION					
01	Project Name	1 Story Example Compact Distribution			
02	Run Title	2100 ft2 CEC Prototype with tile roof			
03	Project Location	1516 Ninth St			
04	City	Sacramento, CA	05	Standards Version	2019
06	Zip code	95814	07	Software Version	CBECC-Res 2019.0.11 Alpha (1068)
08	Climate Zone	12	09	Front Orientation (deg/ Cardinal)	All orientations
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	3
14	New Cond. Floor Area (ft^2)	0	15	Number of Stories	1
16	Fenestration Average U-factor	0.3	17	Total Cond. Floor Area (ft^2)	2100
18	Glazing Percentage (%)	0.1858	19		

COMPLIANCE RESULTS	
01	**Building Complies with Computer Performance**
02	**This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.**

25.744.920.824.1falsefalsefalse

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
1 Story Example Compact Distribution	2100	1	3	1	1	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone NameZone Name	**Zone TypeZone Type**	**HVAC System Name**	**Zone Floor Area (ft^2)**	**Avg. Ceiling Height**	**Water Heating System 1**	**Water Heating System 2**
Conditioned	Conditioned	HVAC System 1	2100	9	DHW System	This field or section is not applicable

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10
Name	**Zone**	**Construction**	**AzimuthAzimuth**	**OrientationOrientation**	**Gross Area (ft^2)**	**Window and Door Area (ft^2)Window and Door Area (ft^2)**	**Tilt (deg)Tilt (deg)**	**Status**	**Verified Existing Condition**
Front	Conditioned	R21 R5 Stucco Wall	0	Front	270	146.25	90		
Left	Conditioned	R21 R5 Stucco Wall	90	Left	324	72	90		
Back	Conditioned	R21 R5 Stucco Wall	180	Back	450	154.02	90		
Right	Conditioned	R21 R5 Stucco Wall	270	Right	414	38	90		
GarToHouse Front	Conditioned>>Garage	Gar House R21	This field or section is not applicable	This field or section is not applicable	180	20	This field or section is not applicable		
GarToHouse Left	Conditioned>>Garage	Gar House R21	This field or section is not applicable	This field or section is not applicable	90	0	This field or section is not applicable		
Gar Ceiling	Garage	R0 ClgBlwAttic Cons	This field or section is not applicable	This field or section is not applicable	440	This field or section is not applicable	This field or section is not applicable		
Ceiling (below attic) 1	Conditioned	R38 Ceiling below attic	This field or section is not applicable	This field or section is not applicable	2100	This field or section is not applicable	This field or section is not applicable		
Gwall Front	Garage	Garage Wall R-0	0	Front	180	108	90		
Gwall Left	Garage	Garage Wall R-0	90	Left	198	0	90		
Gwall Right	Garage	Garage Wall R-0	270	Right	108	0	90		

ATTIC

01	02	03	04	05	06	07	08	09	10
Name	**Construction**	**Type**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Radiant Barrier**	**Cool Roof**	**Status**	**Verified Existing Condition**
Gar Attic	Tile Roof	Ventilated	5	0.2	0.85	No	No		
Attic	Tile R-19 below deck	Ventilated	5	0.2	0.85	No	Yes		

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	**Type**	**Surface (Orientation-Azimuth)**	**Surface (Orientation-Azimuth)**	**Surface (Orientation-Azimuth)**	**Width (ft)**	**Heigth (ft)**	**Multiplier**	**Area (ft^2)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**	**Status**	**Verified Existing Condition**
F-6060	Window	Front	Front	0	6	6	1	36	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
F-4050 x3	Window	Front	Front	0	4	5	3	60	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
F-1660 x2	Window	Front	Front	0	1.5	6	2	18	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
F-3636	Window	Front	Front	0	3.5	3.5	1	12.25	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
L-5040 x2	Window	Left	Left	90	5	4	2	40	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
L-4040 x2	Window	Left	Left	90	4	4	2	32	0.3	NFRC	0.23	NFRC	Insect Screen (default)		

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface (Orientation-Azimuth)	Surface (Orientation-Azimuth)	Surface (Orientation-Azimuth)	Width (ft)	Heigth (ft)	Multiplier	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
B1 SGD	Window	Back	Back	180	6	6.67	1	40.02	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
B-6010	Window	Back	Back	180	6	1	1	6	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
B-6040 x3	Window	Back	Back	180	6	4	3	72	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
B-6050	Window	Back	Back	180	6	5	1	30	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
B-3020	Window	Back	Back	180	3	2	1	6	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
R-3030 x2	Window	Right	Right	270	3	3	2	18	0.3	NFRC	0.23	NFRC	Insect Screen (default)		
R-4050	Window	Right	Right	270	4	5	1	20	0.3	NFRC	0.23	NFRC	Insect Screen (default)		

OPAQUE DOORS

01	02	03	04	05	06
Name	Side of Building	Area (ft^2)	U-factor	Status	Verified Existing Condition
Front Dr		20	0.2		
GarToHouse Dr		20	0.2		
GDoor		108	1		

OVERHANGS AND FINS															
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Window	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up	Status	Verified Existing Condition
F-6060	1	1.33	3	10	0	0	0	0	0	0	0	0	0		
F-4050 x3	1	1.33	6	6	0	0	0	0	0	0	0	0	0		
F-1660 x2	4	1.33	3	3	0	0	0	0	0	0	0	0	0		
F-3636	1	1.33	10	10	0	0	0	0	0	0	0	0	0		
B1 SGD	6	1.33	4	4	0	0	0	0	0	0	0	0	0		
B-6010	1	0	4	4	0	0	0	0	0	0	0	0	0		
B-6040 x3	1	1.33	23	23	0	0	0	0	0	0	0	0	0		
B-6050	1	1.33	10	10	0	0	0	0	0	0	0	0	0		
B-3020	1	1.33	10	10	0	0	0	0	0	0	0	0	0		

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
Garage Wall R-0	Exterior Walls	Above Grade	Wood Framed Wall		Other	none	0			0.347	Inside Finish: Gypsum BoardCavity / Frame: no insul. / 2x6Exterior

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
											Finish: 3 Coat Stucco

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
R21 R5 Stucco Wall	Exterior Walls	Above Grade	Wood Framed Wall		R 21	R 21	21			0.048	Inside Finish: Gypsum BoardCavity / Frame: R-21 / 2x6Sheathing / Insulation: R5 SheathingExterior Finish:

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
											Synthetic Stucco

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
Gar House R21	Interior Walls	Above Grade	Wood Framed Wall		R 21	R 21	21			0.075	Inside Finish: Gypsum BoardCavity / Frame: R-21 / 2x4Other Side Finish: Gypsum Board

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
Tile R-19 below deck	Attic Roofs	Above Grade	Wood Framed Ceiling		R 19	R 19	19			0.049	Under Roof Joists: R-6.0 insul.Cavity / Frame: R-13.0 / 2x4Roof Deck: Wood Siding/sheathing/deckingTile

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
											Gap: presentRoofing: 10 PSF (RoofTile)

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
Tile Roof	Attic Roofs	Above Grade	Wood Framed Ceiling		Other	none	0			0.4	Cavity / Frame: no insul. / 2x4Roof Deck: Wood Siding/sheathing/deckingTile Gap: presentRoofin

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
											g: 10 PSF (RoofTile)
R0 ClgBlwAttic Cons	Ceilings (below attic)	Above Grade	Wood Framed Ceiling		Other	none	0			0.481	Inside Finish: Gypsum BoardCavity / Frame: no insul. / 2x4 Btm Chrd

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08	09	10	11	12
Construction Name	**Surface Type**	**Is construction above grade?**	**Construction Type**	**Construction NameSurface TypeIs construction above grade?Construction TypeTotal Cavity R-valueTotal Cavity R-valueTotal Cavity R-value decimalInterior/ Exterior Continuous R-valueInterior/ Exterior Continuous R-valueU-factorAssembly LayersUser Defined Fields**	**Total Cavity R-value**	**Total Cavity R-value**	**Total Cavity R-value decimal**	**Interior/ Exterior Continuous R-value**	**Interior/ Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
R38 Ceiling below attic	Ceilings (below attic)	Above Grade	Wood Framed Ceiling		R 38	R 38	38			0.025	Inside Finish: Gypsum BoardCavity / Frame: R-9.1 / 2x4 Btm ChrdOver Ceiling Joists: R-28.9 insul.

SLAB FLOORS

Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value & Depth	Edge Insul. R-value & Depth	Edge Insul. R-value & Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Gslab	Garage	440	44	none	0.00	0	0	No		
Slab On Grade	Conditioned	2100	162	none	0.00	0	0.8	No		

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	**Quality Installation of Spray Foam Insulation**	**Building Envelope Air Leakage**	**CFM50**
Required	Not Required	Not Required	

DHW SystemStandardMulti-family: No loops or recirc pumpMulti-family: No loops or recirc pumpSmall Instantaneous1BasicTypeNew

WATER HEATERS

Name	Heating Element Type	Tank Type	Number of Units	Tank Volume (gal)	Uniform Energy Factor / Energy Factor / Efficiency	Input Rating/ Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss / Recovery Eff	First Hour Rating / Flow Rate	Simulated Equipment Make and Model	Tank Location or Ambient Condition
Small Instantaneous	Gas	Small Instantaneous	1	0	0.82	200000	0				

DHW System - 1/1

SPACE CONDITIONING SYSTEMS

Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition
HVAC System 1	Heating and cooling system other	Furn 80	Split 14 11.7	HVAC Fan 1	Attic Default			

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	**System Type**	**Number of Units**	**Efficiency**
Furn 80	Central gas furnace	1	80

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	**System Type**	**Number of Units**	**Efficiency EER**	**Efficiency SEER**	**Zonally Controlled**	**Mulit-speed Compressor**	**HERS VerificationHERS Verification**
Split 14 11.7	Central split AC	1	11.7	14	Not Zonal	Single Speed	Split 14 11.7-hers-cool

HVAC COOLING - HERS VERIFICATION

01	02	03	04	05	06
Name	**Verified Airflow**	**Airflow Target**	**Verified EER**	**Verified SEER**	**Verified Refrigerant Charge**
Split 14 11.7-hers-cool	Required	350	Not Required	Not Required	Required

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07
NameName	**TypeType**	**Duct LeakageDuct Leakage**	**Insulation R-valueInsulation R-value**	**Duct LocationSupply Duct Location**	**Bypass Duct**	**HERS VerificationHERS Verification**
Attic Default	DuctsAttic		8			

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	**Duct Leakage Verification**	**Duct leakage target (%)**	**Verified Duct Location**	**Verified Duct Design**	**Buried Ducts**	**Deeply Buried Ducts**	**Low-leakage Air Handler**
Attic Default-hers-dist	Yes	5	Not Required	Not Required	Not Required	Credit not taken	Required

HVAC - FAN SYSTEMS

01	02	03	04
Name	**Type**	**Fan Power (Watts/CFM)**	**HERS VerificationHERS Verification**
HVAC Fan 1	PSC Permanent Split Capacitor	0.45	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	**02**	**03**
Name	**Verified Fan Watt Draw**	**Required Fan Efficiency (Watts/CFM)**
HVAC Fan 1-hers-fan	Required	0.45

IAQ (INDOOR AIR QUALITY) FANS					
01	**02**	**03**	**04**	**05**	**06**
Dwelling Unit	**IAQ CFM**	**IAQ Watts/CFM**	**IAQ Fan Type**	**IAQ Recovery Effectiveness (%)**	**HERS Verification**
SFam IAQVentRpt	90	0.25	Default	0	Yes

COOLING VENTILATION					
01	**02**	**03**	**04**	**05**	**06**
Name	**Airflow Rate (CFM/ft^2)**	**Cooling Vent CFM**	**Cooling Vent Watts/CFM**	**Total Watts**	**Number of Fans**
Whole House Fan	1.5	3150	0.14	441	1

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/ HERS Certification Identification (If applicable):
City/State/Zip:	Phone:
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name:	Responsible Designer Signature:
Company:	Date Signed:
Address:	License:
City/State/Zip:	Phone: