

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
ASHRAE 90.1-2010 - Energy Cost Budget Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: Building D7

Description: TAM Building D7

Owner: Enter Owner's name here

Address1: Enter Address here

City: Enter city here

Address2: Enter Address here

State: Enter state here

Zip: 0

Type: Multi-Family

Class: New Finished building

Jurisdiction: MIAMI, MIAMI-DADE COUNTY, FL (232400)

Conditioned Area: 130200 SF

Conditioned & UnConditioned Area: 130200 SF

No of Stories: 1

Area entered from Plans 0 SF

Permit No: 0

Max Tonnage 311.8

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	112,637.0	114,819.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			FAILS
WATER HEATING SYSTEMS			No Entry
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	7,389.20	7,452.50
	<i>\$112,637</i>	<i>\$114,819</i>
ELECTRICITY(MBtu/kWh/\$)	7,352.40	7,449.10
	2154275	2182548
	<i>\$112,453</i>	<i>\$114,802</i>
AREA LIGHTS	2,196.60	968.30
	643612	283703
	<i>\$33,597</i>	<i>\$14,923</i>
HEAT REJECT	496.80	489.10
	145564	143301
	<i>\$7,598</i>	<i>\$7,538</i>
MISC EQUIPMT	1,481.10	1,481.10
	433964	433964
	<i>\$22,653</i>	<i>\$22,827</i>
PUMPS & MISC	206.80	253.90
	60591	74391
	<i>\$3,163</i>	<i>\$3,913</i>
SPACE COOL	1,606.40	3,448.80
	470686	1010485
	<i>\$24,570</i>	<i>\$53,152</i>
SPACE HEAT	2.10	0.20
	607	54
	<i>\$32</i>	<i>\$3</i>
VENT FANS	1,362.60	807.70
	399251	236650
	<i>\$20,841</i>	<i>\$12,448</i>
NATURAL-GAS(MBtu/therm/\$)	36.80	3.40
	368	34
	<i>\$184</i>	<i>\$17</i>

	1) Proposed	2) Baseline
SPACE HEAT	36.80	3.40
	368	34
	\$184	\$17
Credits Applied: None		PASSES
Passing Criteria = 114819		
Design (including any credits) = 112637		
Passing requires Proposed Building cost to be at most 100% of Baseline cost. This Proposed Building is at 98.1%		

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
(WEA File: FL_MIAMI_INTL_AP.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 3	Walk way less than 10 feet wide	Yes	1.00	150.0	150	

Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W)

All External Lighting: 0 (W)

Compliance check includes a excess/Base allowance of 7.50(W)

PASSES

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
(WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo2Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo5Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES

PASSES

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

Pr0Sy1 **System 1** **Variable Air Volume Built-up System--904** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	1626483					PASSES
Heating System	Heat source from plant	566280					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	34955	1.25	1.12			FAILS

Pr0Sy2 **System 2** **Constant Volume Four Pipe Fan-Coil Built-up System** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	2727080					PASSES
Heating System	Heat source from plant	3295200					PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	68301	0.80	0.82			PASSES

FAILS

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Open centrifugal, chiller	1	312	5.680	6.104	5.900	6.404	Water Chilling Pkg (Centrifugal) Elec. Operated Water Cooled 300-600 Tons	FAILS
Cooling Tower	1	0	14.000	14.000			Closed Cooling Tower - Propeller Fan	PASSES
Hot Water Boiler (Fuel)	1	2	86.000	82.000			Oil Fired >=300,000 and < 2,500,000 Btu/h	PASSES

FAILS

Water Heater Compliance								
Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance	
								None

Piping System Compliance							
Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
							None

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: Building D7

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
IECC 2012 - Total Building Performance Compliance Option

Check List

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PROJECT SUMMARY

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Address1: Enter Address here

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State: Enter state here

Zip: 0

Type: Multi-Family

Class: New Finished building

Jurisdiction: MIAMI, MIAMI-DADE COUNTY, FL (232400)

Conditioned Area: 130200 SF

Conditioned & UnConditioned Area: 130200 SF

No of Stories: 1

Area entered from Plans 0 SF

Permit No: 0

Max Tonnage 311.8

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	111,436.0	98,880.0	FAILED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			FAILS
WATER HEATING SYSTEMS			No Entry
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

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Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>7,315.10</i>	<i>7,549.30</i>
	<i>\$111,436</i>	<i>\$116,329</i>
ELECTRICITY(MBtu/kWh/\$)	<i>7,271.80</i>	<i>7,547.50</i>
	<i>2130645</i>	<i>2211405</i>
	<i>\$111,220</i>	<i>\$116,320</i>
AREA LIGHTS	<i>2,196.60</i>	<i>1,129.70</i>
	<i>643612</i>	<i>330993</i>
	<i>\$33,597</i>	<i>\$17,410</i>
HEAT REJECT	<i>489.60</i>	<i>472.90</i>
	<i>143442</i>	<i>138552</i>
	<i>\$7,488</i>	<i>\$7,288</i>
MISC EQUIPMT	<i>1,481.10</i>	<i>1,481.10</i>
	<i>433964</i>	<i>433964</i>
	<i>\$22,653</i>	<i>\$22,827</i>
PUMPS & MISC	<i>202.30</i>	<i>241.00</i>
	<i>59279</i>	<i>70612</i>
	<i>\$3,094</i>	<i>\$3,714</i>
SPACE COOL	<i>1,578.90</i>	<i>3,415.40</i>
	<i>462617</i>	<i>1000720</i>
	<i>\$24,149</i>	<i>\$52,638</i>
SPACE HEAT	<i>2.40</i>	<i>0.10</i>
	<i>718</i>	<i>22</i>
	<i>\$37</i>	<i>\$1</i>
VENT FANS	<i>1,320.90</i>	<i>807.30</i>
	<i>387013</i>	<i>236542</i>
	<i>\$20,202</i>	<i>\$12,442</i>
NATURAL-GAS(MBtu/therm/\$)	<i>43.30</i>	<i>1.80</i>
	<i>433</i>	<i>18</i>
	<i>\$217</i>	<i>\$9</i>

	1) Proposed	2) Baseline
SPACE HEAT	43.30	1.80
	433	18
	\$217	\$9
Credits Applied: None Passing Criteria = 98880 Design (including any credits) = 111436 Passing requires Proposed Building cost to be at most 85% of Baseline cost. This Proposed Building is at 95.8%		FAILS

Project: Building D7 Title: TAM Building D7 Type: Multi-Family (WEA File: FL_MIAMI_INTL_AP.tm3)						
External Lighting Compliance						
Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 3	Walk way less than 10 feet wide	Yes	1.00	150.0	150	
Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W) All External Lighting: 0 (W) Compliance check includes a excess/Base allowance of 7.50(W)					PASSES	

Project: Building D7 Title: TAM Building D7 Type: Multi-Family (WEA File: FL_MIAMI_INTL_AP.tm3)						
Lighting Controls Compliance						
Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo2Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo5Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
PASSES						

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

Pr0Sy1 **System 1** **Variable Air Volume Built-up System--904** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	1626483					PASSES
Heating System	Heat source from plant	566280					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	34955	1.25	1.12			FAILS

Pr0Sy2 **System 2** **Constant Volume Four Pipe Fan-Coil Built-up System** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	2727080					PASSES
Heating System	Heat source from plant	3295200					PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	68301	0.80	0.82			PASSES

FAILS

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Open centrifugal, chiller	1	312	5.680	6.104	5.900	6.404	Water Chilling Pkg (Centrifugal) Elec. Operated Water Cooled 300-600 Tons	FAILS
Cooling Tower	1	0	14.000	14.000			Closed Cooling Tower - Propeller Fan	PASSES
Hot Water Boiler (Fuel)	1	2	86.000	82.000			Oil Fired >=300,000 and < 2,500,000 Btu/h	PASSES

FAILS

Water Heater Compliance								
Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance	
								None

Piping System Compliance							
Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
							None

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: Building D7

DOE Based Sizing

PROJECT SUMMARY

Short Desc: Building D7

Owner: Enter Owner's name here

Address1: Enter Address here

Address2: Enter Address here

Type: Multi-Family

Weather File: FL_MIAMI_INTL_AP.tm3

Conditioned Area: 130200 SF

No of Stories: 1

Permit No: 0

Description: TAM Building D7

City: Enter city here

State: Enter state here

Zip: 0

Class: New Finished building

Conditioned & UnConditioned Area: 130200 SF

Area entered from Plans 0 SF

Max Tonnage 1

If different, write in: _____

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance as required by the authority of jurisdiction

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance as required by the authority of jurisdiction

Owner Agent: _____

Date: _____

If required by law, I hereby certify (*) that the system design is in compliance as required by the authority of jurisdiction

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature may be required when law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

DOE 2.1 E Based Sized Parameters (Beta Feature)

<u>IdSystem</u>	<u>System Name</u>	<u>System Type</u>		
1	Pr0Sy1	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	1626483	BTU/HR	
	Heating System	566280	Btu/h	
	Air Handling System -Supply	34955	CFM	
2	Pr0Sy2	System 2		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	2727080	BTU/HR	
	Heating System	3295200	Btu/h	
	Air Handling System -Supply	68301	CFM	
7	Open centrifugal, chiller	Open centrifugal, chiller		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Open centrifugal, chiller	311.8333	[Tons]	
8	Cooling Tower	Cooling Tower		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling Tower	4.448		
9	Hot Water Boiler (Fuel)	Hot Water Boiler (Fuel)		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Hot Water Boiler (Fuel)	1.658	[Million Btu/t]	

Florida Building Code, Fifth Edition (2014) - Energy Conservation

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ASHRAE 90.1-2010 - Energy Cost Budget Option

Check List

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- This Checklist
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- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: Building D7

Description: TAM Building D7

Owner: Enter Owner's name here

Address1: Enter Address here

City: Enter city here

Address2: Enter Address here

State: Enter state here

Zip: 0

Type: Multi-Family

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 130200 SF

Conditioned & UnConditioned Area: 130200 SF

No of Stories: 1

Area entered from Plans 0 SF

Permit No: 0

Max Tonnage 278.8

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	107,202.0	99,474.0	FAILED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			PASSES
WATER HEATING SYSTEMS			No Entry
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

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Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>7,238.00</i>	<i>6,487.20</i>
	<i>\$107,202</i>	<i>\$99,474</i>
ELECTRICITY(MBtu/kWh/\$)	6,898.00	6,438.80
	2021102	1886536
	<i>\$105,502</i>	<i>\$99,232</i>
AREA LIGHTS	2,196.60	968.30
	643612	283703
	<i>\$33,597</i>	<i>\$14,923</i>
HEAT REJECT	416.80	400.40
	122129	117309
	<i>\$6,375</i>	<i>\$6,170</i>
MISC EQUIPMT	1,481.10	1,481.10
	433964	433964
	<i>\$22,653</i>	<i>\$22,827</i>
PUMPS & MISC	198.40	238.40
	58122	69857
	<i>\$3,034</i>	<i>\$3,674</i>
SPACE COOL	1,308.60	2,666.20
	383414	781191
	<i>\$20,014</i>	<i>\$41,091</i>
SPACE HEAT	18.80	2.50
	5506	720
	<i>\$287</i>	<i>\$38</i>
VENT FANS	1,277.70	681.90
	374355	199792
	<i>\$19,541</i>	<i>\$10,509</i>
NATURAL-GAS(MBtu/therm/\$)	340.00	48.40
	3400	484
	<i>\$1,700</i>	<i>\$242</i>

	1) Proposed	2) Baseline
SPACE HEAT	340.00	48.40
	3400	484
	\$1,700	\$242

Credits Applied: None
 Passing Criteria = 99474
 Design (including any credits) = 107202
 Passing requires Proposed Building cost to be at most 100% of Baseline cost. This Proposed Building is at 107.8%

FAILS

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 3	Walk way less than 10 feet wide	Yes	1.00	150.0	150	

Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W)
 All External Lighting: 0 (W)
 Complicance check includes a excess/Base allowance of 7.50(W)

PASSES

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo2Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo5Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES

PASSES

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 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy1 **System 1** **Variable Air Volume Built-up System--904** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	1665914					PASSES
Heating System	Heat source from plant	600450					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	37065	1.25	1.12			FAILS

Pr0Sy2 **System 2** **Constant Volume Four Pipe Fan-Coil Built-up System** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	2700230					PASSES
Heating System	Heat source from plant	3410870					PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	68845	0.80	0.82			PASSES

FAILS

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Open centrifugal, chiller	1	279	5.680	5.546	5.900	5.900	Water Chilling Pkg (Centrifugal) Elec. Operated Water Cooled <300 Tons	PASSES
Cooling Tower	1	0	14.000	14.000			Closed Cooling Tower - Propeller Fan	PASSES
Hot Water Boiler (Fuel)	1	2	86.000	82.000			Oil Fired >=300,000 and < 2,500,000 Btu/h	PASSES

PASSES

Water Heater Compliance								
Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance	
								None

Piping System Compliance							
Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
							None

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: Building D7

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
IECC 2012 - Total Building Performance Compliance Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: Building D7

Description: TAM Building D7

Owner: Enter Owner's name here

Address1: Enter Address here

City: Enter city here

Address2: Enter Address here

State: Enter state here

Zip: 0

Type: Multi-Family

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 130200 SF

Conditioned & UnConditioned Area: 130200 SF

No of Stories: 1

Area entered from Plans 0 SF

Permit No: 0

Max Tonnage 278.8

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	105,966.0	88,372.0	FAILED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			PASSES
WATER HEATING SYSTEMS			No Entry
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	7,168.50	6,774.80
	\$105,966	\$103,967
ELECTRICITY(MBtu/kWh/\$)	6,811.60	6,732.00
	1995819	1972487
	\$104,182	\$103,753
AREA LIGHTS	2,196.60	1,129.70
	643612	330993
	\$33,597	\$17,410
HEAT REJECT	409.60	410.70
	120010	120338
	\$6,265	\$6,330
MISC EQUIPMT	1,481.10	1,481.10
	433964	433964
	\$22,653	\$22,827
PUMPS & MISC	193.40	245.50
	56673	71917
	\$2,958	\$3,783
SPACE COOL	1,282.50	2,749.90
	375778	805734
	\$19,616	\$42,382
SPACE HEAT	19.80	2.10
	5792	624
	\$302	\$33
VENT FANS	1,228.60	713.00
	359990	208917
	\$18,791	\$10,989
NATURAL-GAS(MBtu/therm/\$)	356.90	42.80
	3569	428
	\$1,785	\$214

	1) Proposed	2) Baseline
SPACE HEAT	356.90	42.80
	3569	428
	\$1,785	\$214

Credits Applied: None

Passing Criteria = 88372

Design (including any credits) = 105966

Passing requires Proposed Building cost to be at most 85% of Baseline cost. This Proposed Building is at 101.9%

FAILS

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 3	Walk way less than 10 feet wide	Yes	1.00	150.0	150	

Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W)

All External Lighting: 0 (W)

Compliance check includes a excess/Base allowance of 7.50(W)

PASSES

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo2Sp1	25,001	Sales Area	13,500	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo5Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo4Sp1	16	Office - Open Plan	13,500	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES
Pr0Zo7Sp1	16,001	Private Living Space	12,300	2	2	PASSES

PASSES

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

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Pr0Sy2 **System 2** **Constant Volume Four Pipe Fan-Coil Built-up System** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
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Air Handling System -Supply	Air Handler (Supply) - Constant Volume	68845	0.80	0.82			PASSES

FAILS

Project: Building D7
 Title: TAM Building D7
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

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Hot Water Boiler (Fuel)	1	2	86.000	82.000			Oil Fired >=300,000 and < 2,500,000 Btu/h	PASSES

PASSES

Water Heater Compliance								
Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance	
								None

Piping System Compliance							
Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
							None

Project: Building D7
Title: TAM Building D7
Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: Building D7

DOE Based Sizing

PROJECT SUMMARY

Short Desc: Building D7

Owner: Enter Owner's name here

Address1: Enter Address here

Address2: Enter Address here

Type: Multi-Family

Weather File: FL_ORLANDO_INTL_ARPT.tm3

Conditioned Area: 130200 SF

No of Stories: 1

Permit No: 0

Description: TAM Building D7

City: Enter city here

State: Enter state here

Zip: 0

Class: New Finished building

Conditioned & UnConditioned Area: 130200 SF

Area entered from Plans 0 SF

Max Tonnage 311.8

If different, write in: _____

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance as required by the authority of jurisdiction

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance as required by the authority of jurisdiction

Owner Agent: _____

Date: _____

If required by law, I hereby certify (*) that the system design is in compliance as required by the authority of jurisdiction

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature may be required when law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

DOE 2.1 E Based Sized Parameters (Beta Feature)

<u>IdSystem</u>	<u>System Name</u>	<u>System Type</u>		
1	Pr0Sy1	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	1665914	BTU/HR	
	Heating System	600450	Btu/h	
	Air Handling System -Supply	37065	CFM	
2	Pr0Sy2	System 2		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	2700230	BTU/HR	
	Heating System	3410870	Btu/h	
	Air Handling System -Supply	68845	CFM	
7	Open centrifugal, chiller	Open centrifugal, chiller		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Open centrifugal, chiller	278.75	[Tons]	
8	Cooling Tower	Cooling Tower		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling Tower	3.976		
9	Hot Water Boiler (Fuel)	Hot Water Boiler (Fuel)		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Hot Water Boiler (Fuel)	2.321	[Million Btu/t]	