

Summary: EnergyGauge Summit 9th Edition
Name of Product: EnergyGauge Summit version 9.00.00

Submitted for FBC approval – Sept 24, 2026

The filing version of the software may be downloaded from the link below:
<http://esynergyglobal.org/summithelp/summit900filing/EnergyGaugeSummitSetup.exe>

Code calculations implemented:

- ASHRAE 90.1-2022 - Energy Cost Budget Method
- ASHRAE 90.1-2022 - Prescriptive Compliance Option
- FBC 2026 - Total Building Performance Compliance Option
- FBC 2026 - Prescriptive Compliance Option
- FBC 2026 – Component Performance Alternative Option

The ASHRAE 90.1-2022 - Envelope Trade-Off and PRM (Appendix G) Options are not supported at this time.



New Input forms relating to 9th Edition

Renewables:

Implements National Lab of the Rockies (NLR) online PVWatts (<https://pvwatts.nlr.gov/>) calculator to estimate annual PV production

The screenshot shows the PVWatts calculator interface. The 'Renewables' tab is highlighted with a red circle. Below the tabs, there are three radio button options: 'No Renewables', 'I will Enter Annual Site Renewable kWh here' (with a text input field containing '101'), and 'I will use PVWatts Calculator below. You will need to enter proper zip code on the project page' (which is selected). Below these options is a section titled 'PV Watts Calculation Inputs'. This section contains several input fields and checkboxes: 'Capacity kW (0.05 to 500000)' with a value of '5', 'System Losses (-5 to 99%)' with a value of '11.6', 'dc to ac ratio' with a value of '1.12', 'Inverter Efficiency (90 to 99.5)' with a value of '96', 'Orientation 0 to 360' with a value of '180', 'Module Type' dropdown set to 'Standard', 'Array Type' dropdown set to 'Fixed - open rack', 'Is Bifacial' checkbox (unchecked), 'Bifacial factor (0 to 1)' with a value of '0.9', 'Tilt degrees (0 to 90)' with a value of '0', 'Use Zip Code 32765' checkbox (checked), 'Latitude (-90 to 90)' with a value of '30.49', 'Longitude (-180 to 180)' with a value of '-84.86', 'Search Radius (miles)' with a value of '100', 'Use Weather File Albedo' checkbox (unchecked), 'Albedo (>0 <1)' slider, 'Ground Coverage (0.01 to 0.99)' with a value of '0.4', 'PV Soiling' text input field, 'Output' dropdown set to 'hourly', 'Data Set' dropdown set to 'nsrdb', and 'Climate File Id' text input field. At the bottom, there are four buttons: 'Run PVWatts Calculation', 'Annual ac output (TBD)', 'Show Outputs', and 'Reset'.

Renewables Addtl Eff Credits (FBC 9th) Addtl Eff Credits (90.1-2022)

☐ No Renewables

☐ I will Enter Annual Site Renewable kWh here 101

☒ I will use PVWatts Calculator below. You will need to enter proper zip code on the project page

PV Watts Calculation Inputs

Capacity kW (0.05 to 500000) 5 Module Type Standard

System Losses (-5 to 99%) 11.6 Array Type Fixed - open rack

dc to ac ratio 1.12 ☐ Is Bifacial

Inverter Efficiency (90 to 99.5) 96 Bifacial factor (0 to 1) 0.9

Orientation 0 to 360 180 Tilt degrees (0 to 90) 0

☒ Use Zip Code 32765

Latitude (-90 to 90) 30.49 Longitude (-180 to 180) -84.86

Search Radius (miles) 100

☐ Use Weather File Albedo Albedo (>0 <1)

Ground Coverage (0.01 to 0.99) 0.4 PV Soiling

Output hourly Data Set nsrdb Climate File Id

Run PVWatts Calculation Annual ac output (TBD) Show Outputs Reset

Implements 40 FBC Additional Efficiency Options (C406)

Renewables
Addtl Eff Credits (FBC 9th)
Addtl Eff Credits (90.1-2022)

Select Additional Efficiency Category to Display Renewable energy ☒ Show All

Energy Credit Required 64
Renewable and management Credits Required 45
Limit to Energy Efficiency credit carryover from Renewable and Load Management 5
Proposed 158.1

	Credit	IdAddtlEffCredit	Desc
23	☐	5010	L01 Lighting performance
24	☐	5020	L02 High-end trim lighting controls
25	☐	5030	L03 Increase occupancy sensor
26	☐	5040	L04 Increased daylight area
27	☐	5050	L05 Residential light control
28	☐	5060	L06 Reduced lighting power
29	☐	6010	Q01 Efficient elevator equipment
30	☐	6020	Q02 Efficient commercial kitchen equipment
31	☐	6030	Q03 Efficient residential kitchen equipment
32	☐	6040	Q04 Fault detection and diagnostics system
33	☒	7010	R01 Renewable energy
34	☒	8010	G01 Lighting load management

	Proje	IdAddtlEffCre	IdInput	Desc	Value
1	0	7010	1	Project Gross Fl	5000
2	0	7010	2	On-site capacity	4000
3	0	7010	3	Calculate Rt via	False
4	0	7010	4	Off-site capacity	0
5	0	7010	5	Calculate Roff \	False
6	0	7010	6	On-site renewat	1000
7	0	7010	7	Climate yield fac	1.75
8	0	7010	8	Floor area cap	3000

Implements 33 ASHRAE Additional Efficiency Requirements (Section 11)

Renewables

Addtl Eff Credits (FBC 9th)

Addtl Eff Credits (90.1-2022)

Select Additional Efficiency Category to Display More efficient building thermal envelope ☒ Show All

Calculate Credits

Energy Credit Required 50
Renewable Adjustment Credits 7
Proposed 86.8

	Credit	IdAddtlEffCredit	Desc
1	☐	1010	Improved Envelope Performance
2	☐	2020	HVAC Heating Performance Improvement
3	☐	2030	HVAC Cooling Performance Improvement
4	☐	2040	Residential Space HVAC Control
5	☐	2050	Ground-Source Heat-Pump System
6	☐	2060	Dedicated Outdoor Air System with Zone Fan Control
7	☐	2070	Improved HVAC Sequence of Operations
8	☐	3010	Heat Recovery for Service Hot-Water Preheating
9	☐	3020	Heat-Pump Water Heater
10	☐	3030	Efficient Gas Water Heater
11	☐	3040	Service Hot-Water Piping Insulation Increase
12	☐	3050	Point-of-Use Water Heaters

	Proje	IdAddtlEffCre	IdInput	Desc	Value
1	0	4010	1	Complies with 11.5.2.4	True
2	0	5020	1	Complies with 11.5.2.5.2 Continuous Dimming and High	True
3	0	5020	2	Percent of gross lighted floor area receiving high-end tri	95
4	0	5030	1	Complies with 11.5.2.5.3 Occupancy Sensor Control Are	True

Includes External Lighting, Water Heaters, and Renewables in Performance Options Budgets

	1) Proposed	2) Baseline
Total	118.64	186.35
	\$1,839	\$2,909
ELECTRICITY(MBtu/kWh/\$)	118.64	186.35
	34762	54583
	\$1,839	\$2,909
AREA LIGHTS	15.90	35.70
	4649	10458
	\$246	\$557
EXTERNAL LIGHT	2.24	3.88
	657	1136
	\$35	\$61
MISC EQUIPMT	45.60	45.60
	13365	13365
	\$707	\$712
PUMPS & MISC	0.00	0.00
	2	4
	\$0	\$0
RENEWABLES	-18.39	-11.86
	-5390	-3475
	\$-285	\$-185
SPACE COOL	46.40	70.30
	13602	20587
	\$720	\$1,097

EnergyGauge Summit® Fla/Com-2026. Effective Date: Dec 31, 2026

Florida Building Code, 9th Edition (2026) - Energy Conservation C401.2.1: ASHRAE Energy Cost Budget Option

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	1) Proposed	2) Baseline
WATER HEATERS	4.09	4.14
	1199	1212
	\$63	\$65

Additional Efficiency Requirement Report, where applicable, grouped by Category

Project: FBC2026
Title: FBC2026
Type: Office
(WEA File: FL_MIAMI_INTL_AP.tm3)

Additional Efficiency Requirements

Energy Credit Required: 43
Credits Proposed: 87

Compliance: PASSED

P-Group Energy monitoring

P01 Energy Monitoring
Complies with 11.5.2.4

3
True

L-Group Energy savings in lighting systems

L02 Continuous Dimming and High-End Trim.

7.6

Complies with 11.5.2.5.2 Continuous Dimming and High-End Trim.
Not including dwelling units or guest rooms
Percent of gross lighted floor area receiving high-end trim (Not
including dwelling units or guest rooms)

True
95

Implements complete Mandatory Requirements developed by PNNL for FBC 2026 (IECC 2024) and ASHRAE 2022. Includes exceptions (if any) under each requirement. PNNL is gratefully acknowledged.

- Grouped by Stage of Construction such as Final Inspection, Insulation Inspection, Mechanical Inspection, Plan Review etc.
- Grouped by Building Category such as Envelope, Interior Lighting, Mechanical, Project, Exterior Lighting etc
- Grouped by Building Sun Category such as Air Leakage, Controls, Energy Credits, Fenestration, HVAC, Insulation, Post Construction, Renewable Energy etc.

Mandatory Requirements (as applicable)

Requirements compiled by US Department of Energy and Pacific Northwest National Laboratory. Adopted for FBC with permission. Not all may be applicable

Topic	Section	Component	Description	Yes	N/A	Exempt
1. Plan Review						
8001 Plan Review	4.2.2, 5.4.3.1.1, 5.7	Envelope	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed. [- Exception	☐	☐	☐
8020 Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent. [- Exception Areas with obstructions that block direct beam sunlight on >= 1/2 of the roof over the enclosed area for more than 1,500 daytime hours per year between 8 am and 4 pm. Spaces where the daylight zone under rooftop monitors is > 50 percent of the enclosed space floor area.	☐	☐	☐

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