



## EnergyGauge USA 2.8.05

### RELEASE NOTES

The Florida Solar Energy Center would like to present the newest release, EnergyGauge USA Version 2.8.05 on February 25, 2011. This release contains several software fixes, the new ENERGY STAR® V2.5 and V3.0 program functionality for raters, new enhanced FSEC and HERS rating registration functionality coupled with new website registration software. Two training videos are available for viewing demonstrating [ENERGY STAR HERS Index Target Training](#) and the [New HERS Registration Training](#).

NOTE: This software version as with previous EnergyGauge USA versions requires a valid license for use.

#### NEW FEATURES

- New HERS Registration process for FSEC and HERS Providers
  - HERS Rating Guide and optional reports are now generated by the provider, digitally signed for security and uploaded to the FSEC website.
  - HERS Rating Guide and optional reports are now downloaded by the rater from the FSEC website as PDF documents.
  - Calculations do not need to be performed by the rater to create reports.
  - Activate Print Commands is no longer needed for ratings submitted with 2.8.05 and greater versions of EnergyGauge.
  - EnergyGauge HERS Provider Version (USRRHB) will prompt for a new registration component install when HERS Registration is selected the first time following the 2.8.05 install or update. Please follow the directions provided in the popup. This component is required for the new HERS Registration process.
- ENERGY STAR v2.5 and v3.0 implementation including:
  - ENERGY STAR Version 3 Guidelines
  - ENERGY STAR Version 2.5 Guidelines
  - ENERGY STAR Version 3 Guidelines (Revision 1)
  - Florida – Version 2.5 Guidelines dated December 13, 2010

- View ENERGY STAR v2.5 and v3.0 Reference Home
- Calculate ENERGY STAR v2.5 and v3.0
- ENERGY STAR v2.5 and v3.0 HERS Summary following Energy Star calculation
- New ENERGY STAR Checklists
  - Thermal Enclosure Checklist
    - Print blank report
    - View report
  - HVAC System Rater Checklist
    - Print blank report
    - View report
  - Water Management System Builder Checklist
    - Print blank report
    - View report
  - Indoor airPLUS Verification Checklist
    - Print blank report
    - View report
- Optional Reports Selectable On Create Registration File Screen
  - Builders Challenge
  - Fannie Mae
  - Tax Credit
  - ENERGY STAR project status
  - ENERGY STAR v2.0
  - ENERGY STAR v2.5
  - ENERGY STAR v3.0
  - Owner Information

- Builder Information
  - This is a new required input for ENERGY STAR.
- HVAC Company
  - This is a new required input for ENERGY STAR.
- New error checking for HERS Registration and ENERGY STAR
  - Windows are not allowed in a neighbor wall.
  - If an attached garage is selected in the project then at least one of the following must exist:
    - Wall adjacent to garage
    - Floor over garage
    - Air handler unit in garage
    - Hot water heater in garage
  - Window depth for all windows in the same wall must be within 18 inches otherwise an error will display when calculating a HERS Index prompting the user to create separate walls for the offending windows.
  - Infiltration Test Date is now a required field for New (Confirmed) and Existing (Confirmed) projects for registration and is checked when the Registration File is being created.

#### ISSUES RESOLVED IN 2.8.05 SOFTWARE

- Default dishwasher efficiency for the HERS Rated Home is equal to the required efficiency for the HERS Reference Home.
  - Dishwasher calculation now uses the number of bedrooms in the calculation for HERS Rated and Reference Home.
- BDE patch resolves “Insufficient Disk Space” database issue.

- Resolved PV calculations not calculated consistently for Annual Simulation caused by custom PV system not being updated in ENB file.
- Floor page floating point error fixed.
- Resolved registration issue with Duct page when a Heating system is not selected for MJ8.
- Ability to delete a wall. The wall must not have associated door or window components.
- Hollywood, Florida name did not appear on the Climate page after being selected. This required a change to the weather data file which will be updated with the new file after the update. Any custom weather data will be lost and will have to be re-entered.
- An error exists in the weather data associate with Ft. Lauderdale, Florida and it is recommended Hollywood, Florida be used instead.
- Error fixed when there is a ductless heating or cooling system and where the other is ducted or non-existent.

#### ENERGY STAR DOCUMENTATION

- ENERGY STAR Version 2.5 and 3.0 documents should be read and fully understood before attempting to register a home for ENERGY STAR.
  - ENERGY STAR documents are available at: [http://www.energystar.gov/index.cfm?c=bldrs\\_lenders\\_raters.nh\\_v3\\_training\\_req](http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_v3_training_req)
- FSEC documents regarding ENERGY STAR procedures are here:
  - [Using EnergyGauge USA for ENERGY STAR v2.5 Home compliance in 46 states including Florida](#)
- Special conditions are not checked by EnergyGauge that the Rater must be aware of:
  - ENERGY STAR considers detached homes, townhomes, rowhomes, duplexes, and triplexes as single-family homes.
  - Condos and apartments are considered multi-family buildings
- ENERGY STAR is only available for New (Confirmed) and Existing (Confirmed) projects.
- Reference home limitations in EnergyGauge USA:
  - ENERGY STAR used in Climate Zones 6, 7, and 8 currently model is limited to a slab insulation depth of 2 feet.

- Ducts in 2 story – unable to model all scenarios in single zone model.
- Door glass - Unable to separate door glazing from windows. Door glazing is accounted for in its entirety on the window page.
  - Half lite
  - Full lite
- Ducts in 2 story – unable to model all scenarios
  - Slab
    - 75% attic / 25 % conditioned
  - Crawlspace
    - 50% attic / 50% crawlspace
  - Basement
    - 50% attic/ 50% basement
- PTAC and PTHP assumption is made that they are standard.
- ENERGY STAR v2.5 and v3.0 only allow Condo/Apartments in 4 or 5 story buildings if there are independent HVAC and DHW Systems. The rater must determine this program requirement is met when selecting this option.
- Input of bedrooms on the Zone page
  - A new Bedrooms field on the Zone page allows users to enter the number of bedrooms in the Main Zone (or in each zone for versions with system sizing). It may often equal the number of bedrooms on the Project page but may differ when a home has one or more bedrooms in a conditioned basement.
  - **\*\*NOTE for versions of EnergyGauge USA with system sizing: Bedrooms considered to be a below grade basement, where 50% or more wall area below grade, should not be entered in any zone on the Zone page. These bedrooms therefore will not be included in the ENERGY STAR Size Adjustment Factor (SAF) calculation.**
  - The number of non–basement bedrooms is used to determine the CFA<sub>Benchmark Home</sub> for ENERGY STAR V2.5 and V3.0.
  - Any basement bedrooms are excluded from the CFA<sub>Benchmark Home</sub>
    - A bedroom is defined to be in the basement if less than 50% of the wall area is above grade.

## KNOW ISSUES TO BE RESOVED IN A LATER RELEASE

- ENERGY STAR v2.0 Thermal Bypass Checklist must be closed and reopened for Pre-Drywall Inspection Date, Final Inspection Date, and Builder Inspection Date to appear on report.
- ENERGY STAR v2.5 and v3.0 Reference Home is currently modeled with a depth of two feet. The next EnergyGauge USA version will support the 4 foot depth.
- ENERGY STAR v2.5 and v3.0 require Roof Deck Insulation Grade I and this is currently not error checked.
- An error indicating the Thermal Enclosure Checklist is “partial” is displayed on the Create Registration File page if ENERGY STAR is selected and the HVAC System Quality Installation Rater Checklist “Date Checklist Inspected” is not entered. The error will be cleared after entering the HVAC System Quality Installation Rater Checklist “Date Checklist Inspected” and returning to the Create Registration File screen.
- Lot, Block and Platbook do not appear on ENERGY STAR Checklists, if they are needed the workaround would be to enter them in the address field as Lot: xxx, Block: xxx Platbook: xxx.
- ResSizePro Version of software will inadvertently prompt for a HERS Provider at each start up, simply select OK.
- Calculating ENERGY START v2.5 and v3.0 while on the PV page with a PV system entered will cause the error “PVTbal: Record not found.” This will freeze the software. If you run the calculation from any other page you will not get this error.