

# TREAT Model Aggregation Tool

**Dear Multifamily Building Solutions Provider:**

**The Multifamily Performance Program (MPP) team has developed the attached TREAT Model Aggregation Tool to assist TREAT modelers import their simulation results into the format which the SAV-IT requires. Please see the following presentation slides to accompany the TREAT Model Aggregation Tool.**

**If you have any questions or would be interested in a demonstration on how to use this tool, please do not hesitate to contact [mfbuildingsolutions@nyserra.ny.gov](mailto:mfbuildingsolutions@nyserra.ny.gov).**

**Sincerely,**

**The MPP Team**



# TREAT Model Aggregation Tool: Welcome tab

- This excel based tool is designed to assist modelers in importing TREAT simulation results into the SAV-IT.
- The tool aggregates TREAT results into the appropriate SAV-IT formatting, and behind the scenes macros also take into account measure interactivity.
- In order for the tool to work the instructions on each tab should be followed.
  - The Welcome tab for example, requires all blue cells to be filled out. If the zip code is left blank, downstream cells may not populate.

| Project Information    |             |
|------------------------|-------------|
| Project Name           | Sample      |
| Project Street Address | 1 Savit Rd. |
| Project City           | New York    |
| Project Zip Code       | 10037       |

# TREAT Model Aggregation Tool: Treat Summary tab

Number of Models:

3

| Model 1 |                                              |          | Model 2 |                         |           | Model 3 |                                                      |          |
|---------|----------------------------------------------|----------|---------|-------------------------|-----------|---------|------------------------------------------------------|----------|
| IND     | Improvement                                  | Cost     | IND     | Improvement             | Cost      | IND     | Improvement                                          | Cost     |
| 1       | 06 - Air Sealing Apartments                  | \$6,500  | 13      | 15 - Window Air Leakage | \$1       | 12      | 05 - Attic Insulation                                | \$20,193 |
| 2       | 02 - Boiler Controls                         | \$15,000 | 14      | 15 - Window Replacement | \$127,400 | 1       | 04 - Air Sealing                                     | \$3,300  |
| 3       | 01 - Boiler Replacement                      | \$75,000 |         |                         |           | 12      | 07 - Bsmt 4' 2bulb To LED                            | \$50     |
| 4       | 07 - Exterior Post Top Light                 | \$1,200  |         |                         |           | 12      | 08 - Bsmt 2' 2Bulb to LED                            | \$25     |
| 5       | 08 - Exterior Wall Packs                     | \$1,600  |         |                         |           | 12      | 09 - Bsmt Stairwell - Landing                        | \$30     |
| 6       | 09 - Large Parking Lot Wall Pack             | \$900    |         |                         |           | 5       | 10 - Exterior Wall/Soffit/Post to LED                | \$90     |
| 7       | 10 - Parking Lot Fluorescent Pole Light      | \$600    |         |                         |           | 5       | 11 - Exterior Wall Flood to LED                      | \$100    |
| 7       | 11 - Parking Lot Metal Halide Pole Light     | \$600    |         |                         |           | 11      | 12 - Kitchen 4' 2Bulb to LED                         | \$375    |
| 3       | 01 - Boiler Replacement-Space Heater Savings | \$1      |         |                         |           | 11      | 13 - Kitchen Can Lights to LED                       | \$420    |
| 8       | 03 - Boiler Pumps to VFD                     | \$7,500  |         |                         |           | 11      | 14 - Apartment Screw Base to LED                     | \$750    |
| 9       | 14 - DHW Recirc Pump to VFD                  | \$2,500  |         |                         |           | 11      | 15 - Living Room Candelabra to LED                   | \$552    |
| 9       | 04 - DHW Heater Replacement                  | \$27,000 |         |                         |           | 9       | 01 - Water Heater Replacement (Previously Installed) | \$9,500  |
| 10      | 05 - Low Flow Devices                        | \$1,950  |         |                         |           | 10      | 06 - Low Flow Devices                                | \$800    |

Welcome TREAT Summary Model 1 .csv Model 2 .csv Model 3 .csv Measure Savings Measure Summary

- The TREAT Summary tab allows users to enter the number of models (max 10), condense the TREAT improvements into measure based on SAV-IT Measure Categories, and provide measure names.
- The first step is to select the number of models. Once this is done new tabs will appear, based on this number entered, and the TREAT CSV files can be copied and pasted into them.
- After this, measure numbers can be entered into the blue cells shown to combine like improvements, and to create measures. The user can then name the measures, similar to what is done in the SAV-IT (this portion of the tab is not shown on this slide).

# TREAT Model Aggregation Tool: Measure Savings tab

Calculate Energy Savings

Please remember that LED replacements must be listed as a separate measure and cannot be combined with fluorescent lighting upgrades.

| Meas. #   | Measure Name           | Measure Category | Measure Classification                  | Savings Accrue To | Measure Cost | Annual Water/ Sewer Savings (1000) | Annual O&M Savings (\$/yr) | ANNUAL ENERGY SAVINGS    |             |             |
|-----------|------------------------|------------------|-----------------------------------------|-------------------|--------------|------------------------------------|----------------------------|--------------------------|-------------|-------------|
|           |                        |                  |                                         |                   |              |                                    |                            | Annual Electricity (kWh) |             | Demand (kW) |
|           |                        |                  |                                         |                   |              |                                    |                            | Cooling                  | Non-Cooling |             |
| 1         | Air Sealing            | Envelope         | Air Sealing                             | Building          | \$9,800      |                                    |                            | 83                       | 0           | 0           |
| 2         | Boiler Controls        | Heating/Cooling  | Energy Management System (EMS), Install | Building          | \$15,000     |                                    |                            | 0                        | 0           | 0           |
| 3         | Boiler Replacement     | Heating/Cooling  | Boiler, Replace (Central)               | Building          | \$75,001     |                                    |                            | 0                        | 71,777      | 0           |
| 4         | Exterior Post Top      | Lighting         | LED Fixtures & Screw-Ins                | Building          | \$1,200      |                                    |                            | 0                        | 4,599       | 1           |
| 5         | Exterior Wall Packs    | Lighting         | LED Fixtures & Screw-Ins                | Building          | \$1,790      |                                    |                            | 0                        | 7,455       | 1           |
| 6         | Parking Lot Wall Pack  | Lighting         | LED Fixtures & Screw-Ins                | Building          | \$900        |                                    |                            | 0                        | 3,066       | 0           |
| 7         | Parking Lot Pole Light | Lighting         | LED Fixtures & Screw-Ins                | Building          | \$1,200      |                                    |                            | 0                        | 2,300       | 0           |
| 8         | Boiler Pump            | Motors           | Pumps, Upgrade                          | Building          | \$7,500      |                                    |                            | 0                        | 8,498       | 1           |
| 9         | DHW                    | DHW              | Replace DHW Heater (Central)            | Building          | \$39,000     |                                    |                            | 22                       | 330         | 0           |
| 10        | Low Flow               | DHW              | Low-flow Devices                        | Tenants           | \$2,750      |                                    |                            | 0                        | 0           | 0           |
| 11        | LED                    | Lighting         | LED Fixtures & Screw-Ins                | Tenants           | \$2,097      |                                    |                            | 461                      | 8,165       | 1           |
| 12        | Insulation             | Envelope         | Insulation, Above Grade Walls           | Building          | \$20,298     |                                    |                            | 933                      | 613         | 1           |
| 13        | Air leakage            | Envelope         | Windows, Weatherstrip or Airseal        | Tenants           | \$1          |                                    |                            | 0                        | 0           | 0           |
| 14        | Window replacement     | Envelope         | Windows, Replace                        | Tenants           | \$127,400    |                                    |                            | 0                        | 0           | 0           |
| SUBTOTALS |                        |                  |                                         |                   |              |                                    |                            | 1,498                    | 106,803     | 6           |
| TOTALS    |                        |                  |                                         |                   | \$303,937    | \$0                                | \$0                        | 108,301                  |             | 6           |

In the **Measure Savings** tab, be sure the blue cells noting the **Measure Category**, **Measure Classification** and **Savings Accrue To** sections are filled out and then click the **Calculate Energy Savings** button on the top of the screen. If these blue cells are not filled out or the **Calculate Energy Savings** button is not clicked, the final tab of this tool will not populate.

# TREAT Model Aggregation Tool: Measure Summary tab

| Measure Name                                                              | Cost                   | Annual SITE Energy Savings |                   |             |                 | Demand Savings (kW) | Annual Water/Sewer Savings (1000 gal) | Annual O&M Savings |     |
|---------------------------------------------------------------------------|------------------------|----------------------------|-------------------|-------------|-----------------|---------------------|---------------------------------------|--------------------|-----|
|                                                                           |                        | Heating MMBtu              | Non-Heating MMBtu | Cooling kWh | Non-Cooling kWh |                     |                                       |                    |     |
| <b>Measures to be undertaken by building - Savings accrue to building</b> |                        |                            |                   |             |                 |                     |                                       |                    |     |
| 1                                                                         | Air Sealing            | \$9,800                    | 70                | 0           | 83              | 0                   | 0.1                                   | 0.0                | \$0 |
| 2                                                                         | Boiler Controls        | \$15,000                   | 163               | 0           | 0               | 0                   | 0.0                                   | 0.0                | \$0 |
| 3                                                                         | Boiler Replacement     | \$75,001                   | 91                | 0           | 0               | 71,777              | 0.0                                   | 0.0                | \$0 |
| 4                                                                         | Exterior Post Top      | \$1,200                    | 0                 | 0           | 0               | 4,599               | 0.5                                   | 0.0                | \$0 |
| 5                                                                         | Exterior Wall Packs    | \$1,790                    | 0                 | 0           | 0               | 7,455               | 0.8                                   | 0.0                | \$0 |
| 6                                                                         | Parking Lot Wall Pack  | \$900                      | 0                 | 0           | 0               | 3,066               | 0.3                                   | 0.0                | \$0 |
| 7                                                                         | Parking Lot Pole Light | \$1,200                    | 0                 | 0           | 0               | 2,300               | 0.3                                   | 0.0                | \$0 |
| 8                                                                         | Boiler Pump            | \$7,500                    | -16               | 0           | 0               | 8,498               | 1.0                                   | 0.0                | \$0 |
| 9                                                                         | DHW                    | \$39,000                   | -16               | 112         | 22              | 330                 | 0.1                                   | 0.0                | \$0 |
| 10                                                                        | Insulation             | \$20,298                   | 59                | 0           | 933             | 613                 | 1.1                                   | 0.0                | \$0 |
| <b>Measures to be undertaken by building - Savings accrue to tenants</b>  |                        |                            |                   |             |                 |                     |                                       |                    |     |
| 16                                                                        | Low Flow               | \$2,750                    | 0                 | 112         | 0               | 0                   | 0.0                                   | 0.0                | \$0 |
| 17                                                                        | LED                    | \$2,097                    | -22               | 0           | 461             | 8,165               | 1.5                                   | 0.0                | \$0 |
| 18                                                                        | Air leakage            | \$1                        | 27                | 0           | 0               | 0                   | 0.0                                   | 0.0                | \$0 |
| 19                                                                        | Window replacement     | \$127,400                  | 53                | 0           | 0               | 0                   | 0.0                                   | 0.0                | \$0 |
| <b>TOTALS</b>                                                             |                        |                            |                   |             |                 |                     |                                       |                    |     |
|                                                                           |                        | \$303,937                  | 409               | 223         | 1,498           | 106,803             | 6                                     | 0                  | 0   |

- Once all preceding tabs are complete, the yellow cells in the **Measure Summary** tab will populate.
- These yellow cells can be directly copied and pasted into the **SAV-IT Measure Summary** tab and represent the TREAT interactive measure results.

# Questions?

Please email: [mfbuildingsolutions@nyserda.ny.gov](mailto:mfbuildingsolutions@nyserda.ny.gov)

