

# New Jersey's Clean Energy Program

LGEA Exit Meeting for:  
*Monroe Township Board of Education*

Smruti Srinivasan, TRC

December 13, 2017



# Introductions



- *Monroe Township Board of Education*
  - Director-Plant Operations: Dave Sullivan
  - Business Administrator: Lisa Schulz
  - Designated Representative: Jeff Moore / Ken Powell
- *NJ Clean Energy Program – TRC*
  - Auditors: Smruti Srinivasan  
Mike Roberts
  - Case Manager: Ashley Miller
  - BPU / ESIP: Gary Finger *(tentative)*

# Agenda

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- Overview of LGEA process
- Energy use & existing conditions
- Review of Energy Conservation Measures (ECMs) identified
- Questions or concerns regarding the draft audit report
- Overview of NJCEP equipment incentives
- Next steps for Monroe Township Board of Education

# Process to Draft Report

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- Application submitted to NJCEP
- Site Visit Performed
- Utility Analysis
- Baseline Condition
- Analysis
- Recommendations
- Report

# Summary of Recommended ECMs – All Buildings



(See handout in folder)

| Energy Conservation Measure                                |  | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|--|--|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Lighting Upgrades</b>                                   |  | <b>1,534,738</b>              | <b>327.9</b>             | <b>0.0</b>                  | <b>\$209,020.64</b>             | <b>\$1,053,488.68</b>       | <b>\$158,005.00</b>       | <b>\$895,483.68</b>     | <b>4.3</b>                    | <b>1,545,469</b>                            |
| ECM 1  | Install LED Fixtures                                     | 311,284                       | 48.5                     | 0.0                         | \$42,534.43                     | \$341,182.69                | \$33,170.00               | \$308,012.69            | 7.2                           | 313,460                                     |
| ECM 2  | Retrofit Fixtures with LED Lamps                         | 1,223,454                     | 279.4                    | 0.0                         | \$166,486.21                    | \$712,305.99                | \$124,835.00              | \$587,470.99            | 3.5                           | 1,232,009                                   |
| <b>Lighting Control Measures</b>                           |  | <b>325,556</b>                | <b>70.9</b>              | <b>0.0</b>                  | <b>\$44,459.25</b>              | <b>\$169,334.00</b>         | <b>\$24,300.00</b>        | <b>\$145,034.00</b>     | <b>3.3</b>                    | <b>327,832</b>                              |
| ECM 3  | Install Occupancy Sensor Lighting Controls               | 280,269                       | 61.6                     | 0.0                         | \$38,357.49                     | \$136,134.00                | \$17,605.00               | \$118,529.00            | 3.1                           | 282,228                                     |
| ECM 4  | Install High/Low Lighting Controls                       | 45,287                        | 9.3                      | 0.0                         | \$6,101.76                      | \$33,200.00                 | \$6,695.00                | \$26,505.00             | 4.3                           | 45,604                                      |
| <b>Motor Upgrades</b>                                      |  | <b>82,867</b>                 | <b>10.8</b>              | <b>0.0</b>                  | <b>\$11,348.34</b>              | <b>\$153,243.87</b>         | <b>\$0.00</b>             | <b>\$153,243.87</b>     | <b>13.5</b>                   | <b>83,447</b>                               |
| ECM 5  | Premium Efficiency Motors                                | 82,867                        | 10.8                     | 0.0                         | \$11,348.34                     | \$153,243.87                | \$0.00                    | \$153,243.87            | 13.5                          | 83,447                                      |
| <b>Variable Frequency Drive (VFD) Measures</b>             |  | <b>568,957</b>                | <b>56.9</b>              | <b>0.0</b>                  | <b>\$77,550.18</b>              | <b>\$325,632.28</b>         | <b>\$48,867.50</b>        | <b>\$276,764.78</b>     | <b>3.6</b>                    | <b>572,941</b>                              |
| ECM 6  | Install VFD on Variable Air Volume (VAV) HVAC            | 29,606                        | 4.3                      | 0.0                         | \$3,966.79                      | \$14,628.35                 | \$4,687.50                | \$9,940.85              | 2.5                           | 29,813                                      |
| ECM 7  | Install VFDs on Constant Volume (CV) HVAC                | 313,985                       | 50.8                     | 0.0                         | \$42,428.35                     | \$166,376.03                | \$21,080.00               | \$145,296.03            | 3.4                           | 316,180                                     |
| ECM 8  | Install VFDs on Chilled Water Pumps                      | 165,504                       | 0.9                      | 0.0                         | \$22,886.27                     | \$97,999.95                 | \$22,200.00               | \$75,799.95             | 3.3                           | 166,661                                     |
| ECM 9  | Install VFDs on Hot Water Pumps                          | 50,529                        | 0.9                      | 0.0                         | \$6,937.61                      | \$43,620.30                 | \$0.00                    | \$43,620.30             | 6.3                           | 50,882                                      |
| ECM 10   | Install VFDs on Single-Speed Kitchen Hoods               | 9,333                         | 0.0                      | 0.0                         | \$1,331.16                      | \$3,007.65                  | \$900.00                  | \$2,107.65              | 1.6                           | 9,404                                       |
| <b>Electric Chiller Replacement</b>                        |  | <b>367,151</b>                | <b>223.6</b>             | <b>0.0</b>                  | <b>\$49,192.87</b>              | <b>\$728,632.64</b>         | <b>\$76,636.00</b>        | <b>\$651,996.64</b>     | <b>13.3</b>                   | <b>369,719</b>                              |
| ECM 11   | Install High Efficiency Chillers                         | 367,151                       | 223.6                    | 0.0                         | \$49,192.87                     | \$728,632.64                | \$76,636.00               | \$651,996.64            | 13.3                          | 369,719                                     |
| <b>Domestic Water Heating Upgrade</b>                      |  | <b>15,222</b>                 | <b>0.0</b>               | <b>209.3</b>                | <b>\$3,636.70</b>               | <b>\$2,714.83</b>           | <b>\$0.00</b>             | <b>\$2,714.83</b>       | <b>0.7</b>                    | <b>39,830</b>                               |
| ECM 12   | Install Low-Flow Domestic Hot Water Devices              | 15,222                        | 0.0                      | 209.3                       | \$3,636.70                      | \$2,714.83                  | \$0.00                    | \$2,714.83              | 0.7                           | 39,830                                      |
| <b>Food Service Equipment &amp; Refrigeration Measures</b> |  | <b>12,116</b>                 | <b>1.0</b>               | <b>0.0</b>                  | <b>\$1,661.70</b>               | <b>\$3,336.30</b>           | <b>\$160.00</b>           | <b>\$3,176.30</b>       | <b>1.9</b>                    | <b>12,200</b>                               |
| ECM 13   | Refrigerator/Freezer Case Electrically Commutated Motors | 12,116                        | 1.0                      | 0.0                         | \$1,661.70                      | \$3,336.30                  | \$160.00                  | \$3,176.30              | 1.9                           | 12,200                                      |
| <b>Plug Load Equipment Control - Vending Machine</b>       |  | <b>19,342</b>                 | <b>0.0</b>               | <b>0.0</b>                  | <b>\$2,606.80</b>               | <b>\$3,220.00</b>           | <b>\$0.00</b>             | <b>\$3,220.00</b>       | <b>1.2</b>                    | <b>19,477</b>                               |
| ECM 14   | Vending Machine Control                                  | 19,342                        | 0.0                      | 0.0                         | \$2,606.80                      | \$3,220.00                  | \$0.00                    | \$3,220.00              | 1.2                           | 19,477                                      |
| <b>TOTALS</b>  |  | <b>2,925,950</b>              | <b>691.1</b>             | <b>209.3</b>                | <b>\$399,476.48</b>             | <b>\$2,439,602.60</b>       | <b>\$307,968.50</b>       | <b>\$2,131,634.10</b>   | <b>5.3</b>                    | <b>2,970,915</b>                            |

\* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

\*\* - Simple Payback Period is based on net measure costs (i.e. after incentives).

# Summary of Non-Recommended ECMs – All Buildings



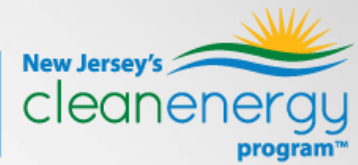
| Energy Conservation Measure           | Recommend? | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|---------------------------------------|------------|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Motor Upgrades</b>                 |            | 2,711                         | 0.8                      | 0.0                         | \$345.69                        | \$14,699.28                 | \$0.00                    | \$14,699.28             | 42.5                          | 2,730                                       |
| Premium Efficiency Motors             | No         | 2,711                         | 0.8                      | 0.0                         | \$345.69                        | \$14,699.28                 | \$0.00                    | \$14,699.28             | 42.5                          | 2,730                                       |
| <b>Electric Unitary HVAC Measures</b> |            | 55,128                        | 32.5                     | 0.0                         | \$8,677.32                      | \$253,484.25                | \$15,580.00               | \$237,904.25            | 29.2                          | 55,514                                      |
| Install High Efficiency Electric AC   | No         | 55,128                        | 32.5                     | 0.0                         | \$8,677.32                      | \$253,484.25                | \$15,580.00               | \$237,904.25            | 29.2                          | 55,514                                      |
| <b>TOTALS</b>                         |            | 57,839                        | 33.4                     | 0.0                         | \$9,023.01                      | \$268,183.53                | \$15,580.00               | \$252,603.53            | 28.0                          | 58,243                                      |

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# *(1) Williamstown High School*

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## **Overview of Systems, Baseline & Existing Conditions:**

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

## **Utility Consumption:**

- Electric Consumption and Costs
- Natural Gas Consumption and Costs



# (1) Williamstown High School



| Energy Conservation Measure                          |   | Recommend? | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|--|---|------------|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Lighting Upgrades</b>                             |   |            | <b>664,952</b>                | <b>126.1</b>             | <b>0.0</b>                  | <b>\$89,093.69</b>              | <b>\$412,385.64</b>         | <b>\$51,350.00</b>        | <b>\$361,035.64</b>     | <b>4.1</b>                    | <b>669,601</b>                              |
| ECM 1  | Install LED Fixtures                          | Yes        | 105,458                       | 16.4                     | 0.0                         | \$14,129.81                     | \$157,933.17                | \$6,240.00                | \$151,693.17            | 10.7                          | 106,195                                     |
| ECM 2  | Retrofit Fixtures with LED Lamps              | Yes        | 559,494                       | 109.7                    | 0.0                         | \$74,963.88                     | \$254,452.47                | \$45,110.00               | \$209,342.47            | 2.8                           | 563,406                                     |
| <b>Lighting Control Measures</b>                     |   |            | <b>155,505</b>                | <b>30.0</b>              | <b>0.0</b>                  | <b>\$20,835.38</b>              | <b>\$64,808.00</b>          | <b>\$6,190.00</b>         | <b>\$58,618.00</b>      | <b>2.8</b>                    | <b>156,592</b>                              |
| ECM 3  | Install Occupancy Sensor Lighting Controls    | Yes        | 126,323                       | 24.3                     | 0.0                         | \$16,925.39                     | \$48,008.00                 | \$6,190.00                | \$41,818.00             | 2.5                           | 127,206                                     |
| ECM 4  | Install High/Low Lighting Controls            | Yes        | 29,182                        | 5.7                      | 0.0                         | \$3,909.99                      | \$16,800.00                 | \$0.00                    | \$16,800.00             | 4.3                           | 29,386                                      |
| <b>Motor Upgrades</b>                                |   |            | <b>40,211</b>                 | <b>6.0</b>               | <b>0.0</b>                  | <b>\$5,387.71</b>               | <b>\$71,520.70</b>          | <b>\$0.00</b>             | <b>\$71,520.70</b>      | <b>13.3</b>                   | <b>40,492</b>                               |
| ECM 5  | Premium Efficiency Motors                     | Yes        | 40,211                        | 6.0                      | 0.0                         | \$5,387.71                      | \$71,520.70                 | \$0.00                    | \$71,520.70             | 13.3                          | 40,492                                      |
| <b>Variable Frequency Drive (VFD) Measures</b>       |   |            | <b>382,595</b>                | <b>46.8</b>              | <b>0.0</b>                  | <b>\$51,262.04</b>              | <b>\$210,940.33</b>         | <b>\$30,567.50</b>        | <b>\$180,372.83</b>     | <b>3.5</b>                    | <b>385,270</b>                              |
| ECM 6  | Install VFD on Variable Air Volume (VAV) HVAC | Yes        | 29,606                        | 4.3                      | 0.0                         | \$3,966.79                      | \$14,628.35                 | \$4,687.50                | \$9,940.85              | 2.5                           | 29,813                                      |
| ECM 7  | Install VFDs on Constant Volume (CV) HVAC     | Yes        | 285,353                       | 42.5                     | 0.0                         | \$38,233.03                     | \$152,208.43                | \$18,680.00               | \$133,528.43            | 3.5                           | 287,348                                     |
| ECM 8  | Install VFDs on Chilled Water Pumps           | Yes        | 41,175                        | 0.0                      | 0.0                         | \$5,516.84                      | \$28,098.15                 | \$7,200.00                | \$20,898.15             | 3.8                           | 41,463                                      |
| ECM 9  | Install VFDs on Hot Water Pumps               | Yes        | 26,461                        | 0.0                      | 0.0                         | \$3,545.38                      | \$16,005.40                 | \$0.00                    | \$16,005.40             | 4.5                           | 26,646                                      |
| <b>Electric Chiller Replacement</b>                  |   |            | <b>367,151</b>                | <b>223.6</b>             | <b>0.0</b>                  | <b>\$49,192.87</b>              | <b>\$728,632.64</b>         | <b>\$76,636.00</b>        | <b>\$651,996.64</b>     | <b>13.3</b>                   | <b>369,719</b>                              |
| ECM 10   | Install High Efficiency Chillers              | Yes        | 367,151                       | 223.6                    | 0.0                         | \$49,192.87                     | \$728,632.64                | \$76,636.00               | \$651,996.64            | 13.3                          | 369,719                                     |
| <b>Domestic Water Heating Upgrade</b>                |   |            | <b>0</b>                      | <b>0.0</b>               | <b>64.4</b>                 | <b>\$491.12</b>                 | <b>\$408.69</b>             | <b>\$0.00</b>             | <b>\$408.69</b>         | <b>0.8</b>                    | <b>7,536</b>                                |
| ECM 11   | Install Low-Flow Domestic Hot Water Devices   | Yes        | 0                             | 0.0                      | 64.4                        | \$491.12                        | \$408.69                    | \$0.00                    | \$408.69                | 0.8                           | 7,536                                       |
| <b>Plug Load Equipment Control - Vending Machine</b> |   |            | <b>8,059</b>                  | <b>0.0</b>               | <b>0.0</b>                  | <b>\$1,079.81</b>               | <b>\$1,150.00</b>           | <b>\$0.00</b>             | <b>\$1,150.00</b>       | <b>1.1</b>                    | <b>8,116</b>                                |
| ECM 12   | Vending Machine Control                       | Yes        | 8,059                         | 0.0                      | 0.0                         | \$1,079.81                      | \$1,150.00                  | \$0.00                    | \$1,150.00              | 1.1                           | 8,116                                       |
| <b>TOTALS</b>  |   |            | <b>1,618,473</b>              | <b>432.5</b>             | <b>64.4</b>                 | <b>\$217,342.63</b>             | <b>\$1,489,846.00</b>       | <b>\$164,743.50</b>       | <b>\$1,325,102.50</b>   | <b>6.1</b>                    | <b>1,637,326</b>                            |

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## *(2) Williamstown Middle School*

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### **Overview of Systems, Baseline & Existing Conditions:**

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

### **Utility Consumption:**

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

## (2) Williamstown Middle School



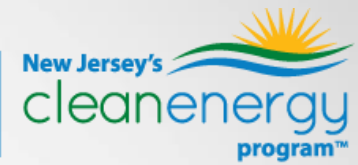
| Energy Conservation Measure                                |  | Recommend? | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|--|--|------------|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Lighting Upgrades</b>                                   |  |            | <b>490,864</b>                | <b>101.2</b>             | <b>0.0</b>                  | <b>\$68,430.51</b>              | <b>\$342,997.43</b>         | <b>\$54,400.00</b>        | <b>\$288,597.43</b>     | <b>4.2</b>                    | <b>494,297</b>                              |
| ECM 1  | Install LED Fixtures                                     | Yes        | 94,818                        | 16.4                     | 0.0                         | \$13,218.43                     | \$124,557.27                | \$15,000.00               | \$109,557.27            | 8.3                           | 95,481                                      |
| ECM 2  | Retrofit Fixtures with LED Lamps                         | Yes        | 396,046                       | 84.7                     | 0.0                         | \$55,212.08                     | \$218,440.17                | \$39,400.00               | \$179,040.17            | 3.2                           | 398,815                                     |
| <b>Lighting Control Measures</b>                           |  |            | <b>95,324</b>                 | <b>18.6</b>              | <b>0.0</b>                  | <b>\$13,288.97</b>              | <b>\$45,024.00</b>          | <b>\$4,430.00</b>         | <b>\$40,594.00</b>      | <b>3.1</b>                    | <b>95,991</b>                               |
| ECM 3  | Install Occupancy Sensor Lighting Controls               | Yes        | 84,199                        | 16.4                     | 0.0                         | \$11,738.10                     | \$36,424.00                 | \$4,430.00                | \$31,994.00             | 2.7                           | 84,788                                      |
| ECM 4  | Install High/Low Lighting Controls                       | Yes        | 11,125                        | 2.2                      | 0.0                         | \$1,550.88                      | \$8,600.00                  | \$0.00                    | \$8,600.00              | 5.5                           | 11,203                                      |
| <b>Motor Upgrades</b>                                      |  |            | <b>36,534</b>                 | <b>3.4</b>               | <b>0.0</b>                  | <b>\$5,093.12</b>               | <b>\$68,652.71</b>          | <b>\$0.00</b>             | <b>\$68,652.71</b>      | <b>13.5</b>                   | <b>36,789</b>                               |
| ECM 5  | Premium Efficiency Motors                                | Yes        | 36,534                        | 3.4                      | 0.0                         | \$5,093.12                      | \$68,652.71                 | \$0.00                    | \$68,652.71             | 13.5                          | 36,789                                      |
| <b>Variable Frequency Drive (VFD) Measures</b>             |  |            | <b>125,147</b>                | <b>0.0</b>               | <b>0.0</b>                  | <b>\$17,446.51</b>              | <b>\$90,303.10</b>          | <b>\$15,000.00</b>        | <b>\$75,303.10</b>      | <b>4.3</b>                    | <b>126,022</b>                              |
| ECM 6  | Install VFDs on Chilled Water Pumps                      | Yes        | 112,704                       | 0.0                      | 0.0                         | \$15,711.86                     | \$66,295.00                 | \$15,000.00               | \$51,295.00             | 3.3                           | 113,492                                     |
| ECM 7  | Install VFDs on Hot Water Pumps                          | Yes        | 12,443                        | 0.0                      | 0.0                         | \$1,734.66                      | \$24,008.10                 | \$0.00                    | \$24,008.10             | 13.8                          | 12,530                                      |
| <b>Domestic Water Heating Upgrade</b>                      |  |            | <b>0</b>                      | <b>0.0</b>               | <b>43.1</b>                 | <b>\$339.90</b>                 | <b>\$1,015.54</b>           | <b>\$0.00</b>             | <b>\$1,015.54</b>       | <b>3.0</b>                    | <b>5,050</b>                                |
| ECM 8  | Install Low-Flow Domestic Hot Water Devices              | Yes        | 0                             | 0.0                      | 43.1                        | \$339.90                        | \$1,015.54                  | \$0.00                    | \$1,015.54              | 3.0                           | 5,050                                       |
| <b>Food Service Equipment &amp; Refrigeration Measures</b> |  |            | <b>10,471</b>                 | <b>0.8</b>               | <b>0.0</b>                  | <b>\$1,459.75</b>               | <b>\$2,123.10</b>           | <b>\$0.00</b>             | <b>\$2,123.10</b>       | <b>1.5</b>                    | <b>10,544</b>                               |
| ECM 9  | Refrigerator/Freezer Case Electrically Commutated Motors | Yes        | 10,471                        | 0.8                      | 0.0                         | \$1,459.75                      | \$2,123.10                  | \$0.00                    | \$2,123.10              | 1.5                           | 10,544                                      |
| <b>Plug Load Equipment Control - Vending Machine</b>       |  |            | <b>8,059</b>                  | <b>0.0</b>               | <b>0.0</b>                  | <b>\$1,123.52</b>               | <b>\$1,610.00</b>           | <b>\$0.00</b>             | <b>\$1,610.00</b>       | <b>1.4</b>                    | <b>8,116</b>                                |
| ECM 10   | Vending Machine Control                                  | Yes        | 8,059                         | 0.0                      | 0.0                         | \$1,123.52                      | \$1,610.00                  | \$0.00                    | \$1,610.00              | 1.4                           | 8,116                                       |
| <b>TOTALS</b>  |  |            | <b>766,400</b>                | <b>124.0</b>             | <b>43.1</b>                 | <b>\$107,182.29</b>             | <b>\$551,725.88</b>         | <b>\$73,830.00</b>        | <b>\$477,895.88</b>     | <b>4.5</b>                    | <b>776,808</b>                              |

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### *(3) Radix Elementary School*

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## **Overview of Systems, Baseline & Existing Conditions:**

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

## **Utility Consumption:**

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

### (3) Radix Elementary School



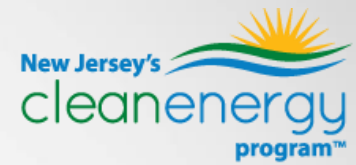
| Energy Conservation Measure                          |   | Recommend? | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|--|---|------------|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Lighting Upgrades</b>                             |   |            | <b>122,149</b>                | <b>32.0</b>              | <b>0.0</b>                  | <b>\$15,576.48</b>              | <b>\$95,509.04</b>          | <b>\$14,465.00</b>        | <b>\$81,044.04</b>      | <b>5.2</b>                    | <b>123,003</b>                              |
| ECM 1  | Install LED Fixtures                        | Yes        | 47,528                        | 7.4                      | 0.0                         | \$6,060.77                      | \$25,484.70                 | \$3,430.00                | \$22,054.70             | 3.6                           | 47,860                                      |
| ECM 2  | Retrofit Fixtures with LED Lamps            | Yes        | 74,621                        | 24.6                     | 0.0                         | \$9,515.70                      | \$70,024.34                 | \$11,035.00               | \$58,989.34             | 6.2                           | 75,143                                      |
| <b>Lighting Control Measures</b>                     |   |            | <b>19,674</b>                 | <b>6.2</b>               | <b>0.0</b>                  | <b>\$2,508.86</b>               | <b>\$20,576.00</b>          | <b>\$5,825.00</b>         | <b>\$14,751.00</b>      | <b>5.9</b>                    | <b>19,812</b>                               |
| ECM 3  | Install Occupancy Sensor Lighting Controls  | Yes        | 17,565                        | 5.6                      | 0.0                         | \$2,239.89                      | \$15,976.00                 | \$2,200.00                | \$13,776.00             | 6.2                           | 17,688                                      |
| ECM 4  | Install High/Low Lighting Controls          | Yes        | 2,109                         | 0.7                      | 0.0                         | \$268.97                        | \$4,600.00                  | \$3,625.00                | \$975.00                | 3.6                           | 2,124                                       |
| <b>Motor Upgrades</b>                                |   |            | <b>2,711</b>                  | <b>0.8</b>               | <b>0.0</b>                  | <b>\$345.69</b>                 | <b>\$14,699.28</b>          | <b>\$0.00</b>             | <b>\$14,699.28</b>      | <b>42.5</b>                   | <b>2,730</b>                                |
|  | Premium Efficiency Motors                   | No         | 2,711                         | 0.8                      | 0.0                         | \$345.69                        | \$14,699.28                 | \$0.00                    | \$14,699.28             | 42.5                          | 2,730                                       |
| <b>Domestic Water Heating Upgrade</b>                |   |            | <b>3,493</b>                  | <b>0.0</b>               | <b>28.8</b>                 | <b>\$707.87</b>                 | <b>\$293.97</b>             | <b>\$0.00</b>             | <b>\$293.97</b>         | <b>0.4</b>                    | <b>6,894</b>                                |
| ECM 5  | Install Low-Flow Domestic Hot Water Devices | Yes        | 3,493                         | 0.0                      | 28.8                        | \$707.87                        | \$293.97                    | \$0.00                    | \$293.97                | 0.4                           | 6,894                                       |
| <b>Plug Load Equipment Control - Vending Machine</b> |   |            | <b>1,612</b>                  | <b>0.0</b>               | <b>0.0</b>                  | <b>\$205.54</b>                 | <b>\$230.00</b>             | <b>\$0.00</b>             | <b>\$230.00</b>         | <b>1.1</b>                    | <b>1,623</b>                                |
| ECM 6  | Vending Machine Control                     | Yes        | 1,612                         | 0.0                      | 0.0                         | \$205.54                        | \$230.00                    | \$0.00                    | \$230.00                | 1.1                           | 1,623                                       |
| <b>TOTALS</b>  |   |            | <b>149,638</b>                | <b>39.1</b>              | <b>28.8</b>                 | <b>\$19,344.44</b>              | <b>\$131,308.29</b>         | <b>\$20,290.00</b>        | <b>\$111,018.29</b>     | <b>5.7</b>                    | <b>154,062</b>                              |

\* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

\*\* - Simple Payback Period is based on net measure costs (i.e. after incentives).

## *(4) Holly Glen Elementary School*

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### **Overview of Systems, Baseline & Existing Conditions:**

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

### **Utility Consumption:**

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

## (4) Holly Glen Elementary School



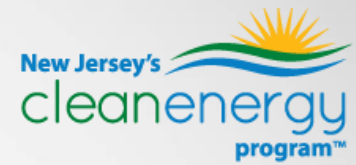
| Energy Conservation Measure                    |   | Recommend? | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|--|---|------------|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Lighting Upgrades</b>                       |   |            | <b>77,759</b>                 | <b>20.6</b>              | <b>0.0</b>                  | <b>\$11,087.40</b>              | <b>\$69,288.58</b>          | <b>\$12,290.00</b>        | <b>\$56,998.58</b>      | <b>5.1</b>                    | <b>78,303</b>                               |
| ECM 1  | Install LED Fixtures                        | Yes        | 12,702                        | 1.7                      | 0.0                         | \$1,811.13                      | \$7,813.54                  | \$2,000.00                | \$5,813.54              | 3.2                           | 12,791                                      |
| ECM 2  | Retrofit Fixtures with LED Lamps            | Yes        | 65,057                        | 18.9                     | 0.0                         | \$9,276.28                      | \$61,475.04                 | \$10,290.00               | \$51,185.04             | 5.5                           | 65,512                                      |
| <b>Lighting Control Measures</b>               |   |            | <b>16,157</b>                 | <b>4.6</b>               | <b>0.0</b>                  | <b>\$2,303.75</b>               | <b>\$13,850.00</b>          | <b>\$1,845.00</b>         | <b>\$12,005.00</b>      | <b>5.2</b>                    | <b>16,270</b>                               |
| ECM 3  | Install Occupancy Sensor Lighting Controls  | Yes        | 16,157                        | 4.6                      | 0.0                         | \$2,303.75                      | \$13,850.00                 | \$1,845.00                | \$12,005.00             | 5.2                           | 16,270                                      |
| <b>Motor Upgrades</b>                          |   |            | <b>1,807</b>                  | <b>0.2</b>               | <b>0.0</b>                  | <b>\$257.72</b>                 | <b>\$3,447.46</b>           | <b>\$0.00</b>             | <b>\$3,447.46</b>       | <b>13.4</b>                   | <b>1,820</b>                                |
| ECM 4  | Premium Efficiency Motors                   | Yes        | 1,807                         | 0.2                      | 0.0                         | \$257.72                        | \$3,447.46                  | \$0.00                    | \$3,447.46              | 13.4                          | 1,820                                       |
| <b>Variable Frequency Drive (VFD) Measures</b> |   |            | <b>54,259</b>                 | <b>4.6</b>               | <b>0.0</b>                  | <b>\$7,737.09</b>               | <b>\$16,772.95</b>          | <b>\$1,700.00</b>         | <b>\$15,072.95</b>      | <b>1.9</b>                    | <b>54,645</b>                               |
| ECM 5  | Install VFDs on Constant Volume (CV) HVAC   | Yes        | 21,677                        | 2.8                      | 0.0                         | \$3,090.80                      | \$6,551.70                  | \$800.00                  | \$5,751.70              | 1.9                           | 21,828                                      |
| ECM 6  | Install VFDs on Chilled Water Pumps         | Yes        | 11,625                        | 0.9                      | 0.0                         | \$1,657.57                      | \$3,606.80                  | \$0.00                    | \$3,606.80              | 2.2                           | 11,706                                      |
| ECM 7  | Install VFDs on Hot Water Pumps             | Yes        | 11,625                        | 0.9                      | 0.0                         | \$1,657.57                      | \$3,606.80                  | \$0.00                    | \$3,606.80              | 2.2                           | 11,706                                      |
| ECM 8  | Install VFDs on Single-Speed Kitchen Hoods  | Yes        | 9,333                         | 0.0                      | 0.0                         | \$1,331.16                      | \$3,007.65                  | \$900.00                  | \$2,107.65              | 1.6                           | 9,404                                       |
| <b>Domestic Water Heating Upgrade</b>          |   |            | <b>0</b>                      | <b>0.0</b>               | <b>41.7</b>                 | <b>\$375.86</b>                 | <b>\$344.16</b>             | <b>\$0.00</b>             | <b>\$344.16</b>         | <b>0.9</b>                    | <b>4,878</b>                                |
| ECM 9  | Install Low-Flow Domestic Hot Water Devices | Yes        | 0                             | 0.0                      | 41.7                        | \$375.86                        | \$344.16                    | \$0.00                    | \$344.16                | 0.9                           | 4,878                                       |
| <b>TOTALS</b>                                  |   |            | <b>149,983</b>                | <b>30.1</b>              | <b>41.7</b>                 | <b>\$21,761.82</b>              | <b>\$103,703.15</b>         | <b>\$15,835.00</b>        | <b>\$87,868.15</b>      | <b>4.0</b>                    | <b>155,916</b>                              |

\* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

\*\* - Simple Payback Period is based on net measure costs (i.e. after incentives).

## *(5) Oak Knoll Elementary School*

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### **Overview of Systems, Baseline & Existing Conditions:**

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

### **Utility Consumption:**

- Electric Consumption and Costs
- Natural Gas Consumption and Costs



# (5) Oak Knoll Elementary School



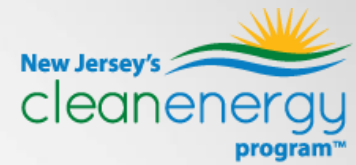
| Energy Conservation Measure                                |  | Recommend? | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|--|--|------------|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Lighting Upgrades</b>                                   |  |            | <b>99,843</b>                 | <b>27.2</b>              | <b>0.0</b>                  | <b>\$12,260.50</b>              | <b>\$73,006.53</b>          | <b>\$14,100.00</b>        | <b>\$58,906.53</b>      | <b>4.8</b>                    | <b>100,541</b>                              |
| ECM 1  | Install LED Fixtures                                     | Yes        | 20,808                        | 2.7                      | 0.0                         | \$2,555.17                      | \$12,110.99                 | \$3,100.00                | \$9,010.99              | 3.5                           | 20,953                                      |
| ECM 2  | Retrofit Fixtures with LED Lamps                         | Yes        | 79,035                        | 24.5                     | 0.0                         | \$9,705.33                      | \$60,895.54                 | \$11,000.00               | \$49,895.54             | 5.1                           | 79,587                                      |
| <b>Lighting Control Measures</b>                           |  |            | <b>18,172</b>                 | <b>4.9</b>               | <b>0.0</b>                  | <b>\$2,231.54</b>               | <b>\$13,620.00</b>          | <b>\$3,600.00</b>         | <b>\$10,020.00</b>      | <b>4.5</b>                    | <b>18,299</b>                               |
| ECM 3  | Install Occupancy Sensor Lighting Controls               | Yes        | 15,840                        | 4.2                      | 0.0                         | \$1,945.12                      | \$11,420.00                 | \$1,530.00                | \$9,890.00              | 5.1                           | 15,951                                      |
| ECM 4  | Install High/Low Lighting Controls                       | Yes        | 2,332                         | 0.6                      | 0.0                         | \$286.42                        | \$2,200.00                  | \$2,070.00                | \$130.00                | 0.5                           | 2,349                                       |
| <b>Motor Upgrades</b>                                      |  |            | <b>2,093</b>                  | <b>0.5</b>               | <b>0.0</b>                  | <b>\$257.00</b>                 | <b>\$4,083.03</b>           | <b>\$0.00</b>             | <b>\$4,083.03</b>       | <b>15.9</b>                   | <b>2,107</b>                                |
| ECM 5  | Premium Efficiency Motors                                | Yes        | 2,093                         | 0.5                      | 0.0                         | \$257.00                        | \$4,083.03                  | \$0.00                    | \$4,083.03              | 15.9                          | 2,107                                       |
| <b>Electric Unitary HVAC Measures</b>                      |  |            | <b>2,133</b>                  | <b>1.1</b>               | <b>0.0</b>                  | <b>\$261.90</b>                 | <b>\$11,344.80</b>          | <b>\$460.00</b>           | <b>\$10,884.80</b>      | <b>41.6</b>                   | <b>2,148</b>                                |
|  | Install High Efficiency Electric AC                      | No         | 2,133                         | 1.1                      | 0.0                         | \$261.90                        | \$11,344.80                 | \$460.00                  | \$10,884.80             | 41.6                          | 2,148                                       |
| <b>Domestic Water Heating Upgrade</b>                      |  |            | <b>11,730</b>                 | <b>0.0</b>               | <b>2.1</b>                  | <b>\$1,459.91</b>               | <b>\$473.22</b>             | <b>\$0.00</b>             | <b>\$473.22</b>         | <b>0.3</b>                    | <b>12,062</b>                               |
| ECM 6  | Install Low-Flow Domestic Hot Water Devices              | Yes        | 11,730                        | 0.0                      | 2.1                         | \$1,459.91                      | \$473.22                    | \$0.00                    | \$473.22                | 0.3                           | 12,062                                      |
| <b>Food Service Equipment &amp; Refrigeration Measures</b> |  |            | <b>1,645</b>                  | <b>0.1</b>               | <b>0.0</b>                  | <b>\$201.95</b>                 | <b>\$1,213.20</b>           | <b>\$160.00</b>           | <b>\$1,053.20</b>       | <b>5.2</b>                    | <b>1,656</b>                                |
| ECM 7  | Refrigerator/Freezer Case Electrically Commutated Motors | Yes        | 1,645                         | 0.1                      | 0.0                         | \$201.95                        | \$1,213.20                  | \$160.00                  | \$1,053.20              | 5.2                           | 1,656                                       |
| <b>Plug Load Equipment Control - Vending Machine</b>       |  |            | <b>1,612</b>                  | <b>0.0</b>               | <b>0.0</b>                  | <b>\$197.93</b>                 | <b>\$230.00</b>             | <b>\$0.00</b>             | <b>\$230.00</b>         | <b>1.2</b>                    | <b>1,623</b>                                |
| ECM 8  | Vending Machine Control                                  | Yes        | 1,612                         | 0.0                      | 0.0                         | \$197.93                        | \$230.00                    | \$0.00                    | \$230.00                | 1.2                           | 1,623                                       |
| <b>TOTALS</b>  |  |            | <b>137,227</b>                | <b>33.8</b>              | <b>2.1</b>                  | <b>\$16,870.74</b>              | <b>\$103,970.78</b>         | <b>\$18,320.00</b>        | <b>\$85,650.78</b>      | <b>5.1</b>                    | <b>138,436</b>                              |

\* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

\*\* - Simple Payback Period is based on net measure costs (i.e. after incentives).

## *(6) Whitehall Elementary School*

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### **Overview of Systems, Baseline & Existing Conditions:**

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

### **Utility Consumption:**

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

## (6) Whitehall Elementary School



| Energy Conservation Measure                    |   | Recommend? | Annual Electric Savings (kWh) | Peak Demand Savings (kW) | Annual Fuel Savings (MMBtu) | Annual Energy Cost Savings (\$) | Estimated Install Cost (\$) | Estimated Incentive (\$)* | Estimated Net Cost (\$) | Simple Payback Period (yrs)** | CO <sub>2</sub> e Emissions Reduction (lbs) |
|--|---|------------|-------------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------|-------------------------------|---|
| <b>Lighting Upgrades</b>                       |   |            | <b>79,172</b>                 | <b>20.9</b>              | <b>0.0</b>                  | <b>\$12,572.06</b>              | <b>\$60,301.45</b>          | <b>\$11,400.00</b>        | <b>\$48,901.45</b>      | <b>3.9</b>                    | <b>79,725</b>                               |
| ECM 1  | Install LED Fixtures                        | Yes        | 29,970                        | 3.9                      | 0.0                         | \$4,759.12                      | \$13,283.02                 | \$3,400.00                | \$9,883.02              | 2.1                           | 30,180                                      |
| ECM 2  | Retrofit Fixtures with LED Lamps            | Yes        | 49,201                        | 17.0                     | 0.0                         | \$7,812.94                      | \$47,018.43                 | \$8,000.00                | \$39,018.43             | 5.0                           | 49,545                                      |
| <b>Lighting Control Measures</b>               |   |            | <b>20,723</b>                 | <b>6.6</b>               | <b>0.0</b>                  | <b>\$3,290.74</b>               | <b>\$11,456.00</b>          | <b>\$2,410.00</b>         | <b>\$9,046.00</b>       | <b>2.7</b>                    | <b>20,868</b>                               |
| ECM 3  | Install Occupancy Sensor Lighting Controls  | Yes        | 20,185                        | 6.4                      | 0.0                         | \$3,205.24                      | \$10,456.00                 | \$1,410.00                | \$9,046.00              | 2.8                           | 20,326                                      |
| ECM 4  | Install High/Low Lighting Controls          | Yes        | 538                           | 0.2                      | 0.0                         | \$85.50                         | \$1,000.00                  | \$1,000.00                | \$0.00                  | 0.0                           | 542   |
| <b>Motor Upgrades</b>                          |   |            | <b>2,222</b>                  | <b>0.7</b>               | <b>0.0</b>                  | <b>\$352.79</b>                 | <b>\$5,539.97</b>           | <b>\$0.00</b>             | <b>\$5,539.97</b>       | <b>15.7</b>                   | <b>2,237</b>                                |
| ECM 5  | Premium Efficiency Motors                   | Yes        | 2,222                         | 0.7                      | 0.0                         | \$352.79                        | \$5,539.97                  | \$0.00                    | \$5,539.97              | 15.7                          | 2,237                                       |
| <b>Variable Frequency Drive (VFD) Measures</b> |   |            | <b>6,956</b>                  | <b>5.5</b>               | <b>0.0</b>                  | <b>\$1,104.52</b>               | <b>\$7,615.90</b>           | <b>\$1,600.00</b>         | <b>\$6,015.90</b>       | <b>5.4</b>                    | <b>7,004</b>                                |
| ECM 6  | Install VFDs on Constant Volume (CV) HVAC   | Yes        | 6,956                         | 5.5                      | 0.0                         | \$1,104.52                      | \$7,615.90                  | \$1,600.00                | \$6,015.90              | 5.4                           | 7,004                                       |
| <b>Electric Unitary HVAC Measures</b>          |   |            | <b>52,995</b>                 | <b>31.4</b>              | <b>0.0</b>                  | <b>\$8,415.42</b>               | <b>\$242,139.45</b>         | <b>\$15,120.00</b>        | <b>\$227,019.45</b>     | <b>27.0</b>                   | <b>53,366</b>                               |
|  | Install High Efficiency Electric AC         | No         | 52,995                        | 31.4                     | 0.0                         | \$8,415.42                      | \$242,139.45                | \$15,120.00               | \$227,019.45            | 27.0                          | 53,366                                      |
| <b>Domestic Water Heating Upgrade</b>          |   |            | <b>0</b>                      | <b>0.0</b>               | <b>29.1</b>                 | <b>\$262.04</b>                 | <b>\$179.25</b>             | <b>\$0.00</b>             | <b>\$179.25</b>         | <b>0.7</b>                    | <b>3,409</b>                                |
| ECM 7  | Install Low-Flow Domestic Hot Water Devices | Yes        | 0                             | 0.0                      | 29.1                        | \$262.04                        | \$179.25                    | \$0.00                    | \$179.25                | 0.7                           | 3,409                                       |
| <b>TOTALS</b>                                  |   |            | <b>162,067</b>                | <b>65.0</b>              | <b>29.1</b>                 | <b>\$25,997.56</b>              | <b>\$327,232.02</b>         | <b>\$30,530.00</b>        | <b>\$296,702.02</b>     | <b>11.4</b>                   | <b>166,609</b>                              |

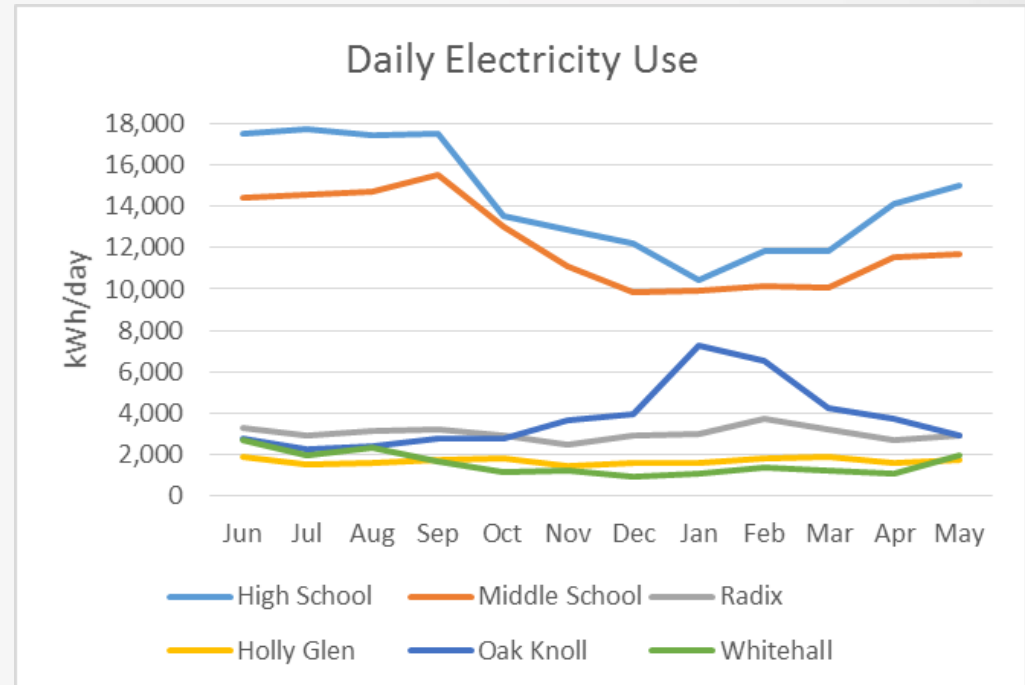
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\*\* - Simple Payback Period is based on net measure costs (i.e. after incentives).

### Retro-Commissioning Study (RCx)

During analysis we determined the electricity usage during summer months at the HS and MS is higher than expected (see chart).

NJCEP estimates ~ 20% of HVAC energy use may be reduced with a RCx study. This translates to an additional 12% electric and 17% gas savings.



# Summary of Benchmarking – All Buildings



| Building Name               | Energy Star Score | Energy Use Intensity (kBtu/ft <sup>2</sup> ) | Energy Use Intensity (kBtu/ft <sup>2</sup> ) * |
|-----------------------------|-------------------|--|--|
| Williamstown High School    | 44                | Site EUI: 119.7<br>Source EUI: 235.9         | Site EUI: 114.5<br>Source EUI: 225.6           |
| Williamstown Middle School  | 59                | Site EUI: 82.5<br>Source EUI: 189.7          | Site EUI: 89.5<br>Source EUI: 205.9            |
| Radix Elementary School     | 71                | Site EUI: 62.4<br>Source EUI: 155.4          | Site EUI: 76.7<br>Source EUI: 191.2            |
| Holy Glen Elementary School | 68                | Site EUI: 89.6<br>Source EUI: 150.2          | Site EUI: 106.4<br>Source EUI: 178.5           |
| Oak Knoll Elementary School | 39                | Site EUI: 71.5<br>Source EUI: 196.3          | Site EUI: 65<br>Source EUI: 178.7              |
| Whitehall Elementary School | 67                | Site EUI: 82.6<br>Source EUI: 158.5          | Site EUI: 97.1<br>Source EUI: 186.2            |

\*National median for comparison

# Some Energy Efficient Best Practices

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- Reduce Air Leakage
- Close Doors and Windows
- Develop a Lighting Maintenance Schedule
- Ensure Lighting Controls Are Operating Properly
- Use Fans to Reduce Cooling Load
- Use Window Treatments/Coverings
- Clean and/or Replace HVAC filters
- Check and Seal Duct Leakage
- Perform Proper Boiler Maintenance
- Perform Proper Water Heater Maintenance
- Plug Load Controls
- Water Conservation

*See individual reports for specific EE practices by building*

# Program Portfolio



## ELIGIBLE SECTORS

Commercial, Industrial, Government, Non-Profit,  
Institutional and Multifamily

## PROGRAMS

### Equipment Rebates:

- Retrofit – Existing Buildings
- New Construction
- Direct Install – Small Business
- Large Energy Users

### Whole Buildings:

- Pay for Performance Existing Buildings
- Pay for Performance New Construction

### Energy Generation:

- Combined Heat and Power (CHP) and Fuel Cells

# Recommended NJCEP Incentives

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## ➤ Direct Install (DI)

Facility Solutions Group

Kyle Charzewski

732-826-6100 x 21137

kyle.charzewski@fsgi.com

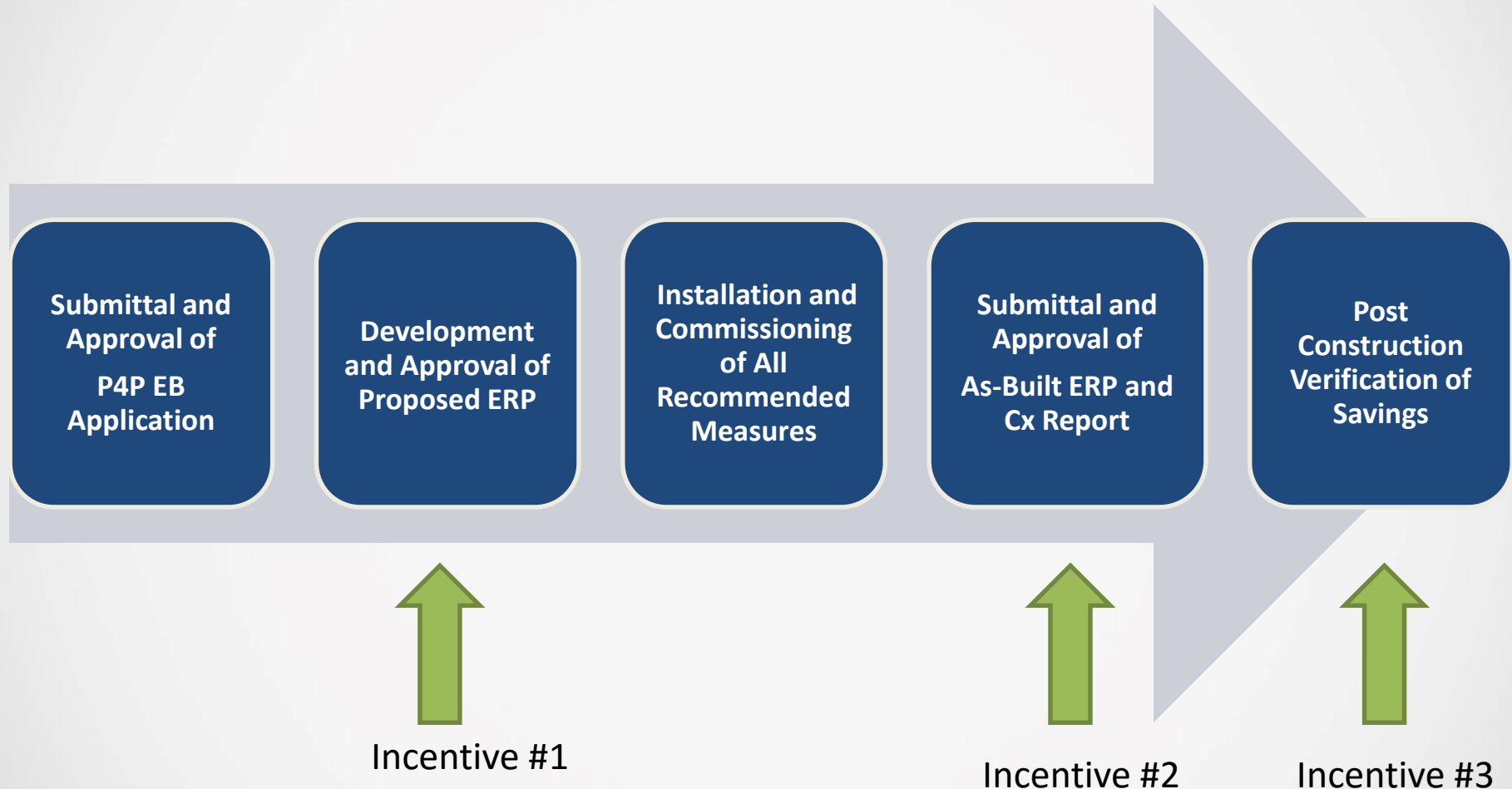
## ➤ Pay for Performance (P4P)

## ➤ SmartStart Buildings (i.e Retrofit – Existing Buildings)





## *P4P – Existing Buildings (Process)*



# P4P – Existing Buildings (Incentives)



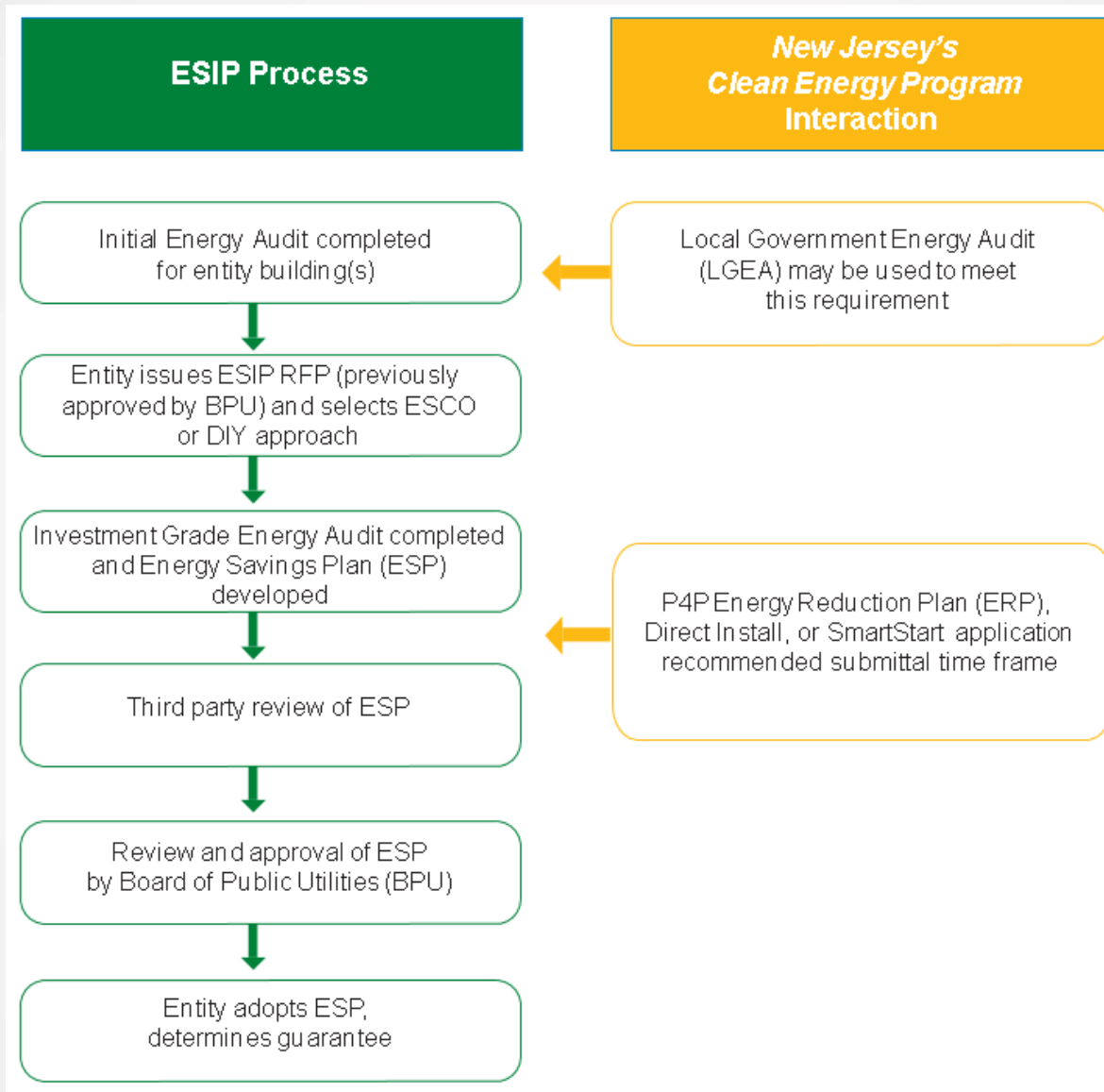
| Incentive #1: Energy Reduction Plan                 |                                       |          |                                       |
|---|---------------------------------------|----------|---------------------------------------|
| Incentive Amount:                                   |                                       | \$0.15   | per sq ft                             |
| Minimum Incentive:                                  |                                       | \$7,500  |                                       |
| Maximum Incentive:                                  |                                       | \$50,000 | or 50% of facility annual energy cost |
| Incentive #2: Installation of Recommended Measures  |                                       |          |                                       |
| Minimum Performance Target:                         |                                       | 15%      |                                       |
| Electric Incentives                                 | Base Incentive based on 15% savings:  | \$0.09   | per projected kWh saved               |
|   | For each % over 15% add:              | \$0.005  |                                       |
|   | Maximum Incentive:                    | \$0.11   |                                       |
| Gas Incentives                                      | Base Incentive based on 15 % savings: | \$0.90   | per projected Therm saved             |
|   | For each % over 15% add:              | \$0.05   |                                       |
|   | Maximum Incentive:                    | \$1.25   |                                       |
| Incentive Cap:                                      |                                       | 25%      | of total project cost                 |
| Incentive #3: Post-Construction Benchmarking Report |                                       |          |                                       |
| Minimum Performance Target:                         |                                       | 15%      |                                       |
| Electric Incentives                                 | Base Incentive based on 15% savings:  | \$0.09   | per projected kWh saved               |
|   | For each % over 15% add:              | \$0.005  |                                       |
|   | Maximum Incentive:                    | \$0.11   |                                       |
| Gas Incentives                                      | Base Incentive based on 15% savings:  | \$0.90   | per projected Therm saved             |
|   | For each % over 15% add:              | \$0.05   |                                       |
|   | Maximum Incentive:                    | \$1.25   |                                       |
| Incentive Cap:                                      |                                       | 25%      | of total project cost                 |

# *Energy Savings Improvement Program (ESIP)*

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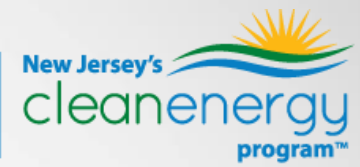


- Program administered directly by BPU
- Provides alternative financing for energy savings projects at public institutions.
- Value of energy savings leveraged to pay for cost of EE projects over a 15 year contract.
- Does not count as debt or require voter approval.
- Requires an audit as 1<sup>st</sup> step (LGEA satisfied this requirement)



# Questions

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# FOR MORE INFORMATION

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