



**STATE COLLEGE AREA SCHOOL DISTRICT
ADMINISTRATION OFFICES**

V-F

**131 W Nittany Avenue • STATE COLLEGE PENNSYLVANIA • 16801
TELEPHONE: 814-231-1016 -- FAX: 814023104130**

To: Board of School Directors

From: Ed Poprik, Randy Brown and Bob O'Donnell

Date: May 6, 2016

Re: Document Submission to PDE

It is recommended that the Board of School Directors approve the submission of the District-Wide Facilities Master Plan (DWFMP) Elementary Options (included in the presentation) and Energy Models for the Elementary Projects as presented and attached.



ENERGY STAR[®] Statement of Energy Design Intent (SEDI)¹
 Option Reno: State College Area School District, Radio Park ES, AUN# 110148002

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Primary Property Type: K-12 School
 Gross Floor Area (ft²): 76,600
 Estimated Date of Certification of Occupancy: _____

Date Generated: May 06, 2016

ENERGY STAR[®]
 Design Score²

1. This form may be used to apply for the ENERGY STAR Designed to Earn. This form was generated from Portfolio Manager's target finder: <http://www.portfoliomanager.energystar.gov/targetfinder>.
2. The ENERGY STAR Score is based on total source energy. The scale is 1-100. A score of 75 is the minimum to be eligible for the ENERGY STAR.

Property & Contact Information for Design Project

Property Address Option Reno: State College Area School District, Radio Park ES, AUN# 110148002, 800 West Cherry Lane State College, Pennsylvania 16803	Project Architect _____ () - _____	Owner Contact _____ () - _____
Property ID: 4965994	Architect Of Record _____ () - _____	Property Owner _____ () - _____

Estimated Design Energy

Fuel Type	Usage	Energy Rate (\$/Unit)
Electric - Grid	440,517 kWh (thousand Watt-hours)	Not Provided
Natural Gas	23,340 ccf (hundred cubic feet)	Not Provided

Estimated Design Use Details

★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

K-12 School

★ Number of Workers on Main Shift	60
★ Percent That Can Be Cooled	90
★ Number of Computers	175
★ Gymnasium Floor Area	4,691 Sq. Ft.
★ Number of Walk-in Refrigeration/Freezer Units	2
★ Cooking Facilities	Yes
★ School District	State College
★ Weekend Operation	Yes
★ Student Seating Capacity	500
★ High School	No
★ Percent That Can Be Heated	90
★ Gross Floor Area	76,600 Sq. Ft.
★ Months in Use	10

Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	92	50	N/A
Energy Reduction (from Median)(%)	-41	0	N/A
Source Energy Use Intensity (kBtu/ft ² /yr)	94	159	65
Site Energy Use Intensity (kBtu/ft ² /yr)	50	86	36
Source Energy Use (kBtu/yr)	7,233,976	12,251,657	5,017,681
Site Energy Use (kBtu/yr)	3,897,728	6,601,297	2,703,569
Energy Costs (\$)	63,864	108,162	44,298
Total GHG Emissions (Metric Tons CO ₂ e)	429	726	297

Designed to earn the ENERGY STAR: Application Checklist

This section is only required if you are using this document to apply for Designed to Earn the ENERGY STAR. All design projects that achieve an EPA energy performance score of 75 or higher are eligible for this certification.

- 1) Does the intended function or use for the property match the criteria of a [property type](#) that's eligible to receive an ENERGY STAR score? Yes No/Not Sure

If you are not sure that your property design is eligible for a design ENERGY STAR score, please describe the property's major functions:

- 2) Is the design project at least 95% complete with construction documents? Yes No

If no, please explain:

- 3) Is the property unoccupied and not yet generating energy bills? Yes No

- 4) Do energy calculations account for the whole building intended operations and all energy sources? Yes No

- 5) Is the Architect of Record (AOR) an ENERGY STAR partner? Yes No

- 6) Will the AOR review the SEDI with building owner before they sign the Owner Letter of Intent? Yes No

- 7) Do the AOR and Building Owner agree that EPA may use information from this document in ENERGY STAR program materials? Yes No

- 8) Are you seeking other qualifications for this design project? Yes No

If so, please select all that apply:

- AIA 2030 Commitment
- Architecture 2030 Challenge
- Federal, State or Local Disclosure Ordinance
- Green Globes
- LEED
- Other, please indicate: _____

Professional Verification

I _____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____ Date: _____

Verifying Professional

,
(____)____-____



**Verifying Professional Stamp
(if applicable)**

Note: When applying for the ENERGY STAR Designed to Earn, the signature of the Verifying Professional must match the stamp.



ENERGY STAR[®] Statement of Energy Design Intent (SEDI)¹
 Option New: State College Area School District, Radio Park ES, AUN# 110148002

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Primary Property Type: K-12 School
 Gross Floor Area (ft²): 76,600
 Estimated Date of Certification of Occupancy: _____

Date Generated: May 06, 2016

ENERGY STAR[®]
 Design Score²

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Property & Contact Information for Design Project

Property Address Option New: State College Area School District, Radio Park ES, AUN# 110148002, 800 West Cherry Lane State College, Pennsylvania 16803	Project Architect _____ () - _____	Owner Contact _____ () - _____
Property ID: 4966025	Architect Of Record _____ () - _____	Property Owner _____ () - _____

Estimated Design Energy

Fuel Type	Usage	Energy Rate (\$/Unit)
Electric - Grid	391,820 kWh (thousand Watt-hours)	Not Provided
Natural Gas	21,800 ccf (hundred cubic feet)	Not Provided

Estimated Design Use Details

★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

K-12 School

★ Number of Workers on Main Shift	60
★ Percent That Can Be Cooled	90
★ Number of Computers	175
★ Gymnasium Floor Area	4,941 Sq. Ft.
★ Number of Walk-in Refrigeration/Freezer Units	2
★ Cooking Facilities	Yes
★ School District	State College Area
★ Student Seating Capacity	500
★ Weekend Operation	Yes
★ High School	No
★ Percent That Can Be Heated	90
★ Gross Floor Area	76,600 Sq. Ft.
★ Months in Use	10

Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	95	50	N/A
Energy Reduction (from Median)(%)	-46.6	0	N/A
Source Energy Use Intensity (kBtu/ft ² /yr)	85	159	74
Site Energy Use Intensity (kBtu/ft ² /yr)	46	87	41
Source Energy Use (kBtu/yr)	6,546,348	12,251,657	5,705,309
Site Energy Use (kBtu/yr)	3,573,569	6,688,026	3,114,457
Energy Costs (\$)	57,777	108,132	50,355
Total GHG Emissions (Metric Tons CO ₂ e)	387	725	338

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If you are not sure that your property design is eligible for a design ENERGY STAR score, please describe the property's major functions:

- 2) Is the design project at least 95% complete with construction documents? Yes No

If no, please explain:

- 3) Is the property unoccupied and not yet generating energy bills? Yes No

- 4) Do energy calculations account for the whole building intended operations and all energy sources? Yes No

- 5) Is the Architect of Record (AOR) an ENERGY STAR partner? Yes No

- 6) Will the AOR review the SEDI with building owner before they sign the Owner Letter of Intent? Yes No

- 7) Do the AOR and Building Owner agree that EPA may use information from this document in ENERGY STAR program materials? Yes No

- 8) Are you seeking other qualifications for this design project? Yes No

If so, please select all that apply:

- AIA 2030 Commitment
- Architecture 2030 Challenge
- Federal, State or Local Disclosure Ordinance
- Green Globes
- LEED
- Other, please indicate: _____

Professional Verification

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ENERGY STAR[®] Statement of Energy Design Intent (SEDI)¹
 Option Reno: State College Area School District, Houserville ES, AUN# 110148002

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Primary Property Type: K-12 School
 Gross Floor Area (ft²): 68,000
 Estimated Date of Certification of Occupancy: _____

Date Generated: May 06, 2016

ENERGY STAR[®]
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Property & Contact Information for Design Project		
Property Address Option Reno: State College Area School District, Houserville ES, AUN# 110148002, 217 Scholl Street State College, Pennsylvania 16801	Project Architect _____ () - _____	Owner Contact _____ () - _____
Property ID: 4966011	Architect Of Record _____ () - _____	Property Owner _____ () - _____

Estimated Design Energy		
Fuel Type	Usage	Energy Rate (\$/Unit)
Electric - Grid	421,059 kWh (thousand Watt-hours)	Not Provided
Natural Gas	22,719 ccf (hundred cubic feet)	Not Provided

Estimated Design Use Details	
★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.	
K-12 School	
★ Number of Workers on Main Shift	48
★ Percent That Can Be Cooled	90
★ Number of Computers	150
★ Gymnasium Floor Area	5,367 Sq. Ft.
★ Number of Walk-in Refrigeration/Freezer Units	2
★ Cooking Facilities	Yes
★ School District	State College Area
★ Student Seating Capacity	400
★ Weekend Operation	Yes
★ High School	No
★ Percent That Can Be Heated	90
★ Gross Floor Area	68,000 Sq. Ft.
★ Months in Use	10

Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	89	50	N/A
Energy Reduction (from Median)(%)	-37.3	0	N/A
Source Energy Use Intensity (kBtu/ft ² /yr)	102	163	61
Site Energy Use Intensity (kBtu/ft ² /yr)	55	88	33
Source Energy Use (kBtu/yr)	6,958,608	11,090,450	4,131,842
Site Energy Use (kBtu/yr)	3,767,622	6,004,739	2,237,117
Energy Costs (\$)	61,427	97,901	36,474
Total GHG Emissions (Metric Tons CO ₂ e)	412	657	245

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If you are not sure that your property design is eligible for a design ENERGY STAR score, please describe the property's major functions:

- 2) Is the design project at least 95% complete with construction documents? Yes No

If no, please explain:

- 3) Is the property unoccupied and not yet generating energy bills? Yes No

- 4) Do energy calculations account for the whole building intended operations and all energy sources? Yes No

- 5) Is the Architect of Record (AOR) an ENERGY STAR partner? Yes No

- 6) Will the AOR review the SEDI with building owner before they sign the Owner Letter of Intent? Yes No

- 7) Do the AOR and Building Owner agree that EPA may use information from this document in ENERGY STAR program materials? Yes No

- 8) Are you seeking other qualifications for this design project? Yes No

If so, please select all that apply:

- AIA 2030 Commitment
- Architecture 2030 Challenge
- Federal, State or Local Disclosure Ordinance
- Green Globes
- LEED
- Other, please indicate: _____

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Option New: State College Area School District, Houserville ES, AUN# 110148002

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Primary Property Type: K-12 School
 Gross Floor Area (ft²): 68,000
 Estimated Date of Certification of Occupancy: _____

Date Generated: May 06, 2016

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Property & Contact Information for Design Project		
Property Address Option New: State College Area School District, Houserville ES, AUN# 110148002, 217 Scholl Street State College, Pennsylvania 16801	Project Architect _____ () - _____	Owner Contact _____ () - _____
Property ID: 4966040	Architect Of Record _____ () - _____	Property Owner _____ () - _____

Estimated Design Energy		
Fuel Type	Usage	Energy Rate (\$/Unit)
Electric - Grid	347,829 kWh (thousand Watt-hours)	Not Provided
Natural Gas	19,352 ccf (hundred cubic feet)	Not Provided

Estimated Design Use Details	
★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.	
K-12 School	
★ Number of Workers on Main Shift	48
★ Percent That Can Be Cooled	90
★ Number of Computers	150
★ Gymnasium Floor Area	5,367 Sq. Ft.
★ Number of Walk-in Refrigeration/Freezer Units	2
★ Cooking Facilities	Yes
★ School District	State College Area
★ Student Seating Capacity	400
★ Weekend Operation	Yes
★ High School	No
★ Percent That Can Be Heated	90
★ Gross Floor Area	68,000 Sq. Ft.
★ Months in Use	10

Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	95	50	N/A
Energy Reduction (from Median)(%)	-47.6	0	N/A
Source Energy Use Intensity (kBtu/ft ² /yr)	85	163	78
Site Energy Use Intensity (kBtu/ft ² /yr)	46	89	43
Source Energy Use (kBtu/yr)	5,811,319	11,090,450	5,279,131
Site Energy Use (kBtu/yr)	3,172,307	6,054,102	2,881,795
Energy Costs (\$)	51,290	97,884	46,594
Total GHG Emissions (Metric Tons CO ₂ e)	343	656	313

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- 2) Is the design project at least 95% complete with construction documents? Yes No

If no, please explain:

- 3) Is the property unoccupied and not yet generating energy bills? Yes No

- 4) Do energy calculations account for the whole building intended operations and all energy sources? Yes No

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- 8) Are you seeking other qualifications for this design project? Yes No

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ENERGY STAR[®] Statement of Energy Design Intent (SEDI)¹

Option Reno, State College Area School District, Corl St ES, AUN# 110148002

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Primary Property Type: K-12 School
Gross Floor Area (ft²): 49,502
Estimated Date of Certification of Occupancy: _____

Date Generated: May 06, 2016

ENERGY STAR[®]
Design Score²

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Property & Contact Information for Design Project

Property Address Option Reno, State College Area School District, Corl St ES, AUN# 110148002 235 South Corl Street State College, Pennsylvania 16801	Project Architect _____ () - _____	Owner Contact _____ () - _____
Property ID: 4966051	Architect Of Record _____ () - _____	Property Owner _____ () - _____

Estimated Design Energy

Fuel Type	Usage	Energy Rate (\$/Unit)
Electric - Grid	325,642 kWh (thousand Watt-hours)	Not Provided
Natural Gas	19,456 ccf (hundred cubic feet)	Not Provided

Estimated Design Use Details

★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

K-12 School

★ Number of Workers on Main Shift	40
★ Percent That Can Be Cooled	70
★ Number of Computers	125
★ Gymnasium Floor Area	5,104 Sq. Ft.
★ Number of Walk-in Refrigeration/Freezer Units	2
★ Cooking Facilities	Yes
★ School District	State College Area
★ Student Seating Capacity	325
★ Weekend Operation	Yes
★ High School	No
★ Percent That Can Be Heated	90
★ Gross Floor Area	49,502 Sq. Ft.
★ Months in Use	10

Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	86	50	N/A
Energy Reduction (from Median)(%)	-33.5	0	N/A
Source Energy Use Intensity (kBtu/ft ² /yr)	112	169	57
Site Energy Use Intensity (kBtu/ft ² /yr)	62	94	32
Source Energy Use (kBtu/yr)	5,584,819	8,399,153	2,814,334
Site Energy Use (kBtu/yr)	3,107,276	4,673,112	1,565,836
Energy Costs (\$)	49,271	74,100	24,829
Total GHG Emissions (Metric Tons CO ₂ e)	329	495	166

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