

# Solar Generation At Arlington Public Schools



Arlington  
Public  
Schools

February 4, 2015



# Agenda

*Sustainability Commitment*

*PV Projects*

*Glebe Elementary School*

*Wakefield High School*

*Discovery Elementary School*

*Lessons Learned*



# Integrated Facility Sustainability Policy (2008)

*LEED Silver Certification*

# Arlington County Community Energy Plan (2013)

*Renewables – 160 MW  
Capacity by 2050*

*Public, Private and Non-  
Profit Sectors*

*Arlington Solar Co-Op*

## Community Energy Plan



# Sustainability Commitment

## *Design and Construction - USGBC LEED Guidelines*

Langston Brown – LEED Silver 2003

Washington-Lee HS – LEED Gold 2009

Reed Westover – LEED Gold 2010

Yorktown HS – LEED Gold 2014

## *Instruction*

## *Maintenance and Operations*

## *Superintendent's Advisory Committee on Sustainability*



# Glebe Elementary – Solar2Schools Initiative

*NEED, SolarWorld, Astrum  
Solar and APS Partnership*

*1.1 kW Classroom Solar  
Demonstration*

*Online Portal*



# Wakefield High School

*Sustainable Design – LEED  
Benchmark*

*Geothermal Heating and  
Cooling*

*90 kW PV System*

*Solar Thermal – Domestic Hot  
Water*





# 90 kW Solar Array

*Design*

*Maintenance*

*Curriculum*

*Solar Dashboard*

# Commitment To Sustainability Beyond LEED

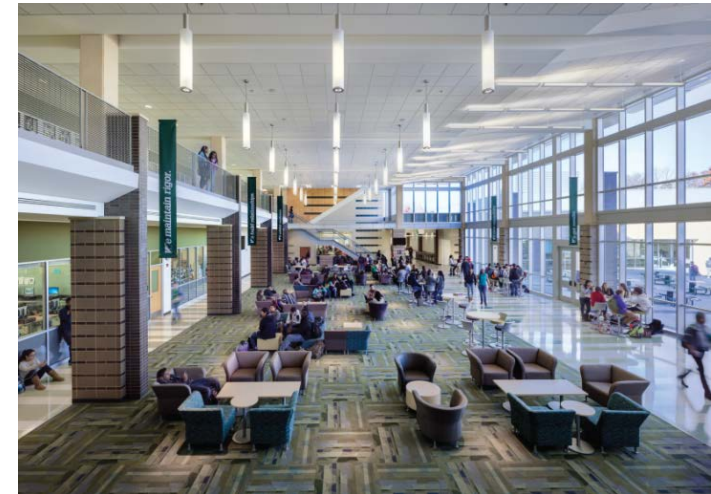
*Net Zero*

*Geothermal Heating and  
Cooling*

*Natural Lighting*

*Solar PV Arrays*

*Solar Thermal – 100%  
Domestic Hot Water*







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VMDO ARCHITECTS

Discovery Elementary

# Discovery Elementary School

630 students

Pre-K to 5<sup>th</sup> grade

Approximately \$35 million construction cost

98,000 gsf / 15.5 acres

Net Zero Design

496 kW Solar PV Generation



# Discovery Elementary School

Insulated Concrete Forms

Geothermal Heating and Cooling

LED Lighting

Solar PV and Solar Thermal

Solar Lab



Solar Tubes



Arlington  
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VMDO ARCHITECTS

Solar Rendering



# Lessons Learned

**Strong Teams**

**Initial Design Phase**

**Target EUI**

**Flexibility**

**Community Support**