

Energy Information for Site Plan Projects
July 16, 2020

Name of Project:
 Site Plan #:
 Date:
 Project Team Contact:

The following issues should be considered for each new site plan to ensure energy efficiency options are being evaluated. Each site plan project should provide information outlined in the table below to inform the public on the project’s energy targets and strategies in support of Arlington’s Community Energy Plan. The intent of this table is to guide discussion on a range of energy and sustainability issues and is not intended to outline specific requirements or commitments as related to Arlington’s Green Building Incentive Program.

Please don’t hesitate to contact Jessica (jabralind@arlingtonva.us) or Joan (jkelsch@arlingtonva.us) if you have questions.

Building Component	Confirmed (y/n)	Notes
Building Envelope		
<p>How is the building envelope designed (please include a drawing)?</p> <p>An efficient building envelope is critical to reducing the need for heating and cooling. Describe the following:</p> <ul style="list-style-type: none"> • Insulation levels – describe wall and roof insulation and how it meets/exceeds building code. Continuous exterior insulation encouraged. • Window efficiency – describe window efficiency and installation practices (including proper sealing protocol). 		

Building Component	Confirmed (y/n)	Notes
<p>Window U-Value less than or equal to 0.30</p> <ul style="list-style-type: none"> • Thermal bridging –describe how the project minimizes the heat/cold transfer across building envelope materials (balconies, windows, etc.) • Describe air sealing protocol. • Other passive design strategies for energy efficiency • Operable windows discouraged in office buildings. If there are operable windows are they scheduled to close automatically (office)? 		
<p>What is the project’s window-to-wall ratio?</p> <ul style="list-style-type: none"> • Projects should aim for a window-to-wall ratio of 40% or a little more. (40% of the building façade is windows and 60% is other building opaque material with insulation.) • Note that buildings with high levels of glass have insufficient levels of insulation. 		
Energy issues		
<p>Is the project at least 15% more energy efficient than the ASHRAE 90.1-2010 as part of the LEED certification?</p>		

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<p>Provide a list of other energy conservation measures under consideration to achieve the energy savings and energy use intensity targets, including but not limited to the efficiency of HVAC and domestic hot water equipment, energy recovery, plug and process load efficiency, and any other creative design solutions.</p>		
<p>Does the project commit to Energy Star certification post-occupancy to verify ongoing energy performance?</p>		
<p>What is the Energy Use Intensity (measured in kBtus/square foot/year) of the building?</p> <p>For reference:</p> <ul style="list-style-type: none"> • An average new office building has an EUI of about 30 kBtu/sq.ft./year (small office) to 70 kBtu/sq.ft./year (large office with data center) • An average new hotel building has an EUI between 60-70 kBtu/sq.ft./year 		

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<ul style="list-style-type: none"> An average new multifamily building has an EUI of about 45-55 kBtu/sq.ft./year 		
<p>Has the project evaluated Zero Carbon feasibility? Provide explanation as to why it can/can't be done.</p> <p>Summary of Zero Carbon criteria:</p> <ul style="list-style-type: none"> 25% improvement over ASHRAE 90.1 – 2010 baseline, 100% on-or off-site renewable energy, carbon offsets for construction and materials, no on-site combustion (except back-up generators) 		
LEED		
Does the project commit to at least LEED Gold (or EarthCraft Gold for some multi-family projects)?		
Electric vs. Fossil Fuel (Minimize natural gas)		
What fuel is used for heating?		

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<p>What fuel(s) is used for ventilation?</p> <p>How is water heated?</p> <p>If there are restaurants, how are they doing cooking/baking?</p>		
Renewable Energy		
<p>Is the project installing on-site solar? How much (measured in kW)?</p> <p>What percent of the building's energy use does the solar installation cover?</p> <p>Is the project contracting for off-site solar? How much (measured in kW)? What percentage of the building's energy use does this cover?</p>		
Access to Nature/biophilia		
<p>Does the building offer access to nature (on the roof, ground level, etc.)?</p>		
Arlington Priority Credits		

Building Component	Confirmed (y/n)	Notes
<p>Is the building pursuing any of the Arlington Priority Credits? Specify which ones:</p> <ul style="list-style-type: none"> ○ Extra energy performance ○ Envelope commissioning ○ Renewable energy production ○ On-site habitat restoration ○ Light pollution/bird friend facades ○ Building reuse/materials salvage ○ ENERGY STAR certification (multifamily) 		