

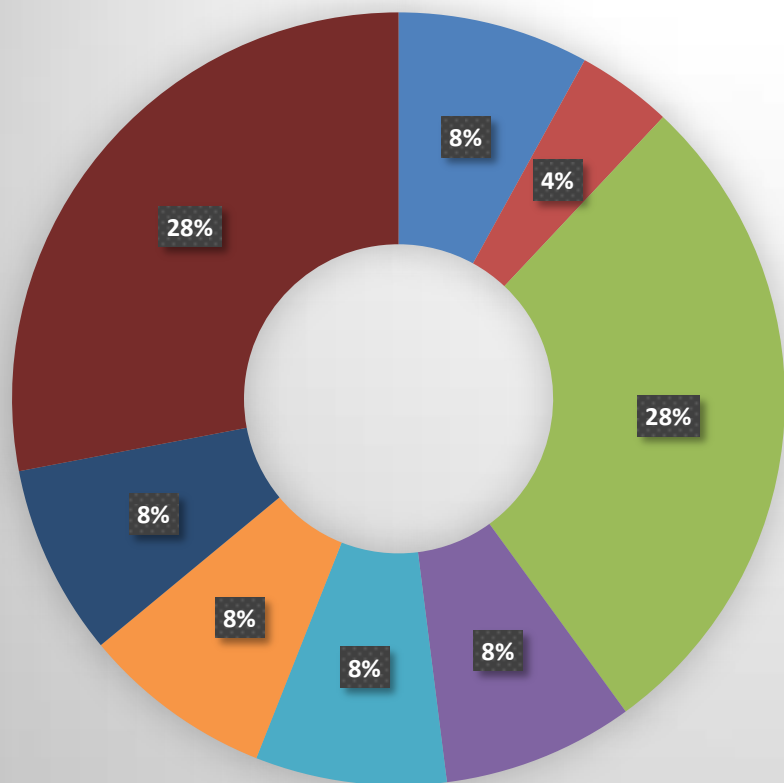
Green Building Program – DRAFT changes

Joan Kelsch

Arlington Initiative to Rethink Energy (AIRE)
Department of Environmental Services

September 18, 2014

Interviewee Demographics



- Architects
- Commercial Leasing Broker
- Developers
- Energy Consultants
- Engineers
- Land Use Attorneys
- Planning Commissioners
- Staff

25 Total Interviewees

Sample Questions

What do you like about where you live/ work?

What is your favorite building?

What is it about the building that you like?

What does sustainability mean to you?

Major Themes from Interviews

Human experience	urban walkability, nature, beautiful
Economics	on time/ on budget, first cost, ongoing operational costs
Regenerative	resource efficient → creating clean energy, rain capture and reuse; beautiful, healthy
Durable	>50 years, flexible, reuse
Community Context	does it fit, fulfill needed uses

Existing Program



LEED Cert Level	Design Energy Savings (prereq.)	Office FAR (up to, max)	Resid. FAR (up to, max)		Energy Star Score (optional)			Other
								<ul style="list-style-type: none"> • Energy Star Appliances • WaterSense fixtures • Lighting Power • Energy Reporting
Silver	18/20%	0.20	0.25		-			
Gold	18/20%	0.35	0.40		-			
Plat.	18/20%	0.45	0.50		-			
Energy Star / EBOM		+0.10	+0.10		75			

Higher energy baseline in LEED v 4 estimated to increase by ~19%. Proposed: Remove prerequisite for minimum design energy savings.



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Plat.	18/20%	0.45	0.50		-			
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Introduction of LEED Multifamily Midrise - separation of office and residential FAR bonuses is not necessary. **Proposed:** Uniform FAR bonus for office and residential.



LEED Cert Level	Design Energy Savings (prereq.)	Office FAR (up to, max)	Resid. FAR (up to, max)	LEED Midrise or BD+C	Energy Star Score (optional)			Other
Silver	18/20%	0.20	0.25	0.25	-			<ul style="list-style-type: none"> • Energy Star Appliances • WaterSense fixtures • Lighting Power • Energy Reporting
Gold	18/20%	0.35	0.40	0.35	-			
Plat.	18/20%	0.45	0.50	0.45	-			
Energy Star / EBOM		+0.10	+0.10		75			

Balance the program more equally between energy design (LEED) and performance (Energy Star). **Proposed: At each bonus level, Energy Star certification must be achieved.**



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Silver	18/20%	0.20	0.25	0.25	-	75	<ul style="list-style-type: none"> • Energy Star Appliances • WaterSense fixtures • Lighting Power • Energy Reporting
Gold	18/20%	0.35	0.40	0.35	-	80	
Plat.	18/20%	0.45	0.50	0.45	-	80	
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LEED is not specific to Arlington.

Proposed: Add community priority list with prerequisites, options for additional bonus.



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Silver	18/20%	0.20	0.25	0.25	-	75	✓	<ul style="list-style-type: none"> • Energy Star Appliances • WaterSense fixtures • Lighting Power • Energy Reporting
Gold	18/20%	0.35	0.40	0.35	-	80	✓	
Plat.	18/20%	0.45	0.50	0.45	-	80	✓	
Community Priority (see list)				+ 0.05 (max)				

Draft Community Priority List

Community Priority – Prerequisites	Office	Residential/ Hotel	Compliance Review
Energy Star Appliances, WaterSense Fixtures		✓	DES Staff
Energy Reporting for ten years	✓	✓	DES Staff
Community Priority Options – Pick up to two Earn 0.025 FAR for each up to 0.05 bonus			
Optimize Energy Performance (four LEED points)	✓	✓	LEED
Further Optimize Energy Performance (seven LEED points)	✓	✓	LEED
Envelope Commissioning	✓	✓	LEED
Renewable Energy Production (one percent)	✓	✓	LEED
Habitat Restoration – Onsite	✓	✓	LEED
Bird Collision Deterrence	✓	✓	LEED
Building Life Cycle Impact Reduction – materials reuse	✓	✓	LEED

Add a stretch goal.

Proposed: Additional density for LEED Gold plus Net Zero Energy certification.



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Gold	18/20%	0.35	0.40	0.35	-	80	✓	
Plat.	18/20%	0.45	0.50	0.45	-	80	✓	
Community Priority (see list)				+ 0.05 (max)				
LEED Gold & Net Zero Cert.				0.60		N/A	✓	

Sensitivity to context of surrounding neighborhood, particularly in low density areas.

Proposed: LEED bonus limited to 20% of building GFA (exception for Net Zero energy projects).



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Gold	18/20%	0.35	0.40	0.35	-	80	✓	
Plat.	18/20%	0.45	0.50	0.45	-	80	✓	
Community Priority (see list)				+ 0.05 (max)				
LEED Gold & Net Zero Cert.				0.60		N/A	✓	

Development Name	Base Density	Gross Floor Area	Density Sq Ft	Density as a % of GFA
220 Twentieth Street		355,676	16,930	5%
NRECA II		260,401	16,761	6%
Navy League		214,350	12,318	6%
1812 N Moore St		601,790	30,089	5%
NSTA Office Site Plan		128,080	8,005	6%
The Irving at Clarendon Station		173,299	7,754	4%
Dominion Heights	40 DU/Ac (residential); 1.5 FAR (residential)	77,938	15,472	20%
Clarendon Center North		120,907	4,069	3%
Clarendon Center South - Residential		238,901	4,280	2%
Clarendon Center South - Office		161,392	4,280	3%
Peck/Staples/AHC - Off. Building B (900 N Glebe)		142,776	11,069	8%
Peck/Staples/AHC - Off. Building A		309,281	31,951	10%
2009 14th St		255,538	17,500	7%
2201 N Pershing		260,000	16,893	6%
1776 Wilson Blvd		140,641	10,365	7%
1900 Wilson Blvd	115 DU/AC (residential); 2.5 FAR (office-comm)	215,563	14,716	7%
Rosslyn Commons - Building 1		264,846	9,080	3%
Rosslyn Commons - Building 2		185,579	9,080	5%
Founder's Square north office (C1)		426,480	20,200	5%
Founders Square south office (B1)		355,530	14,572	4%
Founder's Square hotel (B2)		154,380	14,572	9%
Founder's Square resid (C2)		238,060	14,572	6%
Wakefield Manor		173,600	16,185	9%
Virginia Square Towers		508,022	44,618	9%
1300 17TH ST N		411,679.00	2,636.00	1%
3901 N Fairfax		183,391.00	15,928.00	9%
3001 Washington Blvd - Penzance		306,492.00	7,394.00	2%
650 N Glebe		139,071.00	7,357.60	5%
Verde Point (Bergmann's)	72 DU/Ac (residential); 1.5 FAR (office)	442,681.00	32,457.20	7%
2311 Wilson Blvd		157,395.00	13,375.00	8%
Pierce Queen		194,142.00	7,500.00	4%
Colony House (Hilton hotel)		128,509.00	17,325.00	13%
Latitude Apartments - LEED NC		269,615.00	16,228.00	6%
Marymount Residential - 1000 N. Glebe Rd	115 DU/Ac (residential)	256,496.00	28,703.00	11%
Marymount Office - 1000 N. Glebe Rd		165,204.00	6,555.00	4%
2401 Wilson Hotel		94,415.00	7,650.00	8%

8,712,120 528,436

Average Bonus
(% of total
GFA)
6%

Proposed Revision

LEED v 4 Certification Level	LEED Midrise or BD+C (max FAR)	Energy Star Score (prereq.)	Comm. Prior. (prereq.)
Silver	0.25	75	✓
Gold	0.35	80	✓
Platinum	0.45	80	✓
Community Priority (see list)	+0.05 (max)		
LEED Gold & Net Zero Certification	0.60	N/A	✓

LEED bonus cap: 20% of building GFA; cap does not apply to Net Zero projects



Arlington Initiative to
**Rethink
Energy**

Questions or Comments?

Contact

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Summary of Changes

LEED Cert Level	Design Energy Savings (prereq.)	Office FAR (up to, max)	Resid. FAR (up to, max)	LEED Midrise or BD+C	Energy Star Score (optional)	Energy Star Score (prereq.)	Comm. Prior. (prereq.)	Other
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Gold	18/20%	0.35	0.40	0.35	-	80	✓	
Plat.	18/20%	0.45	0.50	0.45	-	80	✓	
Community Priority (see list)				+ 0.05 (max)				
LEED Gold & Net Zero Cert.				0.60		N/A	✓	
Energy Star/LEED EBOM		+0.10	+0.10					