



U.S. Department of Energy
Energy Efficiency and Renewable Energy

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Greater Return on Investment With Highly Insulating Windows & Low-E Storm Windows

Volume Purchase Solicitation & Products Website

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U.S. Department of Energy Webinar

for the

State of New York Weatherization

Agencies

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Timeline of Volume Purchase Solicitation – Phase I

- July, 2009
Highly insulating windows/low-e windows volume purchase program concept described at industry events.
- September 2009
1st draft specifications released for comment.
- October, 2009
2nd draft specifications released for comment.
- November, 2009
Collective industry conference call to address all comments.
- December, 2009
Final specifications issued with solicitation.
- February, 2010
Deadline for proposals.



Final Windows and Low-E Storm Windows Specifications

High Performance Window (R-5) Specifications		Certification Requirements	
Thermal Performance	U-factor 0.20-0.22	Testing and Certification	Documentation of test results to be provided for the following: ASTM E283-03 Standard Specification for Measuring Solar Heat Gain Coefficient of Windows Accredited Performance Laboratory Report Certified Equivalency Data for U-factor, SHGC, and Visible Transmittance LAMM/AMMA/ASTM E283-03/06 Standard Specification for Measuring Solar Heat Gain Coefficient of Windows Certified Equivalency Data for U-factor, SHGC, and Visible Transmittance
Air Leakage	Max. Infiltration 0.10 cfm/ft ² @ 7.5 psf	Air Leakage (AL)	The following minimum performance levels are required for testing and certification: AL ≤ 0.30 cfm/ft ² @ 7.5 psf AL ≤ 0.10 cfm/ft ² @ 15 psf AL ≤ 0.05 cfm/ft ² @ 25 psf
Visible Light Transmittance	Min. Visible Light Transmittance 0.70		
Weatherstripping	Weatherstripping shall be provided on all operable window units. The weatherstripping shall be of a type that is compatible with the window frame and shall be installed in accordance with the manufacturer's instructions.		
Window Units	Window units shall be installed in accordance with the manufacturer's instructions. The window units shall be installed in a manner that ensures proper operation and weatherstripping.		
Installation	Installation shall be in accordance with the manufacturer's instructions. The window units shall be installed in a manner that ensures proper operation and weatherstripping.		
Other Reporting Requirements	Contractors shall provide a copy of the manufacturer's instructions for the window units to the building owner. The contractor shall also provide a copy of the manufacturer's instructions for the weatherstripping to the building owner.		

High Performance Windows

- U-factor: **0.20-0.22**
- Air leakage: **≤ 0.30 cfm/ft²**
- Certifications: **NFRC/AMMA (NAFS)**
- Warranties: **20 glass/10 non-glass**

Low-e Storm Windows

- Emissivity: **<0.22**
- Glass thickness: **3 mm minimum**
- Structural test: **AMMA/NWWDA/ASTM**
- Registry: **IGDB (LBNL database)**
- Warranties: **10 glass/non-glass**



High Performance Windows Certification

Thermal – NFRC

Label to appear on window

Structural – NAFS '05

Performance Grade=R25+



Authorized Certification Organizations

AAMA, Keystone, NAMI, WDMA





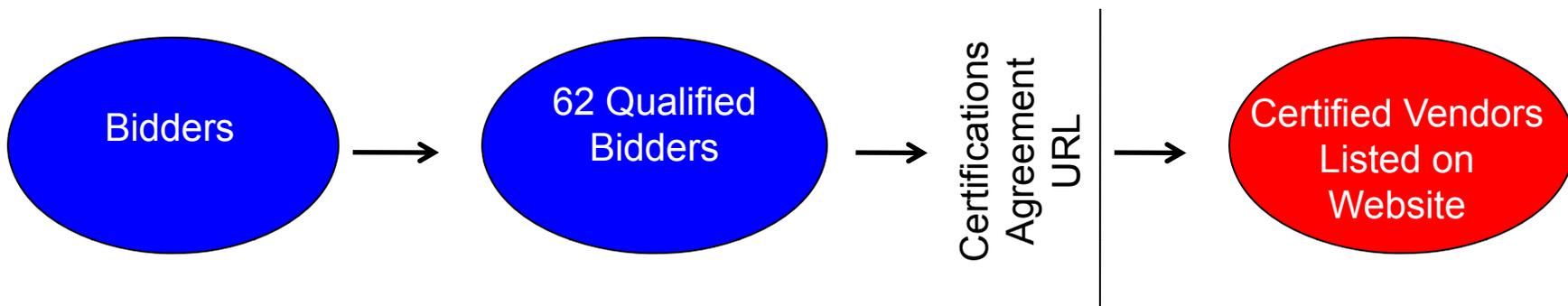
Low-E Storm Windows Certification

- ANSI/AAMA 1002.10-93
- Registration in International Glazing Database (LBNL)
 - Used to verify emissivity value of 0.22
- No certification programs required
 - Thermal value verified by glass type.
 - Structural value not as important for secondary window.



Response to Solicitation

- 62 bidders submitted bids meeting minimum requirements. These became ‘qualified’ bidders
 - 37 identified themselves as regionally-based.
 - 25 identified themselves as nationally-based.
 - 20 will deliver products to Canada.
 - 11 entered bids for low-e storm windows.
 - 9 of the top 16 U.S. window manufacturers by sales.





Minimum Requirements to Qualify

Requirements were intentionally kept simple

- Meet deadline of Feb 19, 2010 to submit bid.
- Submit a compliance letter.
- Submit at least one window product meeting specifications.
 - Additional window products can be added throughout the program period.



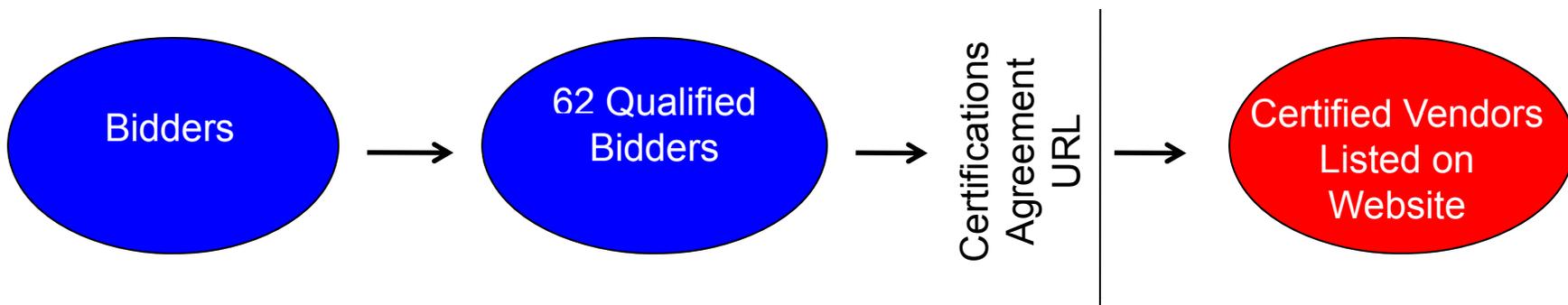
After "Qualification"

- Items required to become a "certified" vendor listed on the website
 - Windows: Thermal and structural certification reports
 - Low-E Storm Windows: IGDB and ANSI/AAMA test reports
 - Proof of warranty
 - Vendor URL address
 - Signed Agreement between PNNL and vendor



After “Certification”

- Vendor’s products are listed on the website with the vendor’s URL.
- There are currently over 40 certified vendors listed on the website. More vendors and certified vendor’s products are added each month.



www.windowsvolumepurchase.org



Purchasing Windows Products

www.windowsvolumepurchase.org

- Minimum order of 15/20 for retrofit/new construction windows
- Minimum order of 1 for sliding glass doors
- Minimum order of 20 for low-e storm windows
- Prices listed are [maximum](#) for each UI category.
- Prices are not listed by vendor.
- Price does not include shipping, installation or added features.
- Delivery region in North America of each vendor is given.



Purchasing Windows Products

www.windowsvolumepurchase.org

- Anyone meeting the minimum order requirements is welcome to purchase products from the website.
- Since prices are not listed by vendor, buyers will need to explore vendors' URLs for prices.
- Vendors may offer other window frame or frame color for the window product bid into this program.
 - The price for alternative frame material or color is not set by the program and thus is negotiated between the buyer and vendor.
- A list of frequently asked questions is posted on website to assist buyers.



Public Sector Purchasers

www.windowsvolumepurchase.org

- Because awards to the bidders in the program were not based on bid prices – with winners and losers – some agencies may not be able to buy (sole-source) windows directly from a vendor listed on the website.
- A ‘limited competition’ among *selected* qualified vendors on the website may be an avenue to use this program to purchase windows products for agencies that are required to compete product purchases.
- DOE will be adding a ‘request for bid’ form to the website to streamline this process.



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Product Website

Website Demonstration

www.windowsvolumepurchase.org



Future Program Activities

- Phase II Volume Purchase Program
 - Engage industry in fall 2010 to discuss results of Phase I and scope and products for Phase II.
 - Consider adding additional window types.
 - Consider windows for commercial applications.
 - Consider specifications changes
 - U-factor
 - Include regional solar heat gain coefficient (SHGC)
 - Raising structural performance grade
 - Others as suggested by industry and buyers.
 - Coordinate with ENERGY STAR windows program.