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Highly Insulating (R-5) and Low-e Storm Windows Volume Purchase Program

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Presented at the Windows Volume Purchase Program Kickoff Event

National Association of Homebuilders

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Timeline of Solicitation Development

- 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.



Key Specifications for Industry Comment

- ❖ U-factor
- ❖ Air infiltration
- ❖ SHGC
- ❖ Visible transmittance
- ❖ Acoustic performance
- ❖ Standards
- ❖ Emissivity
- ❖ Condensation resistance
- ❖ Warranties
- ❖ Certifications





Final Windows and Low-e Storm Windows Specifications

Requirements were reduced dramatically

High Performance Window (R-5) Specifications

R-5 Performance Specifications

	Fixed	Mandatory
Thermal Performance	U-Factor 0.30 or better	U-Factor 0.30 or better
Air Leakage	Air Infiltration 0.10 or better (See Specification Requirements)	Air Infiltration 0.10 or better
Warranty	10 Year	10 Year
Workability/Install:	<p>Supplier shall demonstrate workability and installability. Workability shall be demonstrated by the manufacturer's representative or a qualified installer. The manufacturer shall provide a written statement of workability and installability. The manufacturer shall provide a written statement of workability and installability. The manufacturer shall provide a written statement of workability and installability.</p>	
Other Items:	<p>All windows and storm windows shall comply with the applicable code requirements. The manufacturer shall provide a written statement of workability and installability. The manufacturer shall provide a written statement of workability and installability.</p>	
Site Category:	See Windows and Storm Windows	
Minimum Order:	See Windows and Storm Windows	
Site Reporting Requirements:	<p>Volume Purchase Program vendors will be required to report window sales monthly to EERE. The purpose of reporting sales is to ensure that the program is being used to the maximum extent possible. The manufacturer shall provide a written statement of workability and installability. The manufacturer shall provide a written statement of workability and installability.</p>	

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Certification Requirements

Testing and Certification	Documentation of certification to be provided for the bidding	Air Leakage (AL)	The following methods and procedures are included for testing and certification:
	<p>ASTM E283-02 Standard Specification for Insulating Glass Unit Performance and Evaluation</p> <p>All products certified under EERE program must comply with the following requirements:</p> <p>1. Thermal Performance: U-Factor, Air Infiltration, Condensation Resistance</p> <p>2. Air Leakage: Air Infiltration</p> <p>3. Structural: Structural Performance</p> <p>4. Workability/Installability: Workability and Installability</p>		<p>The following methods and procedures are included for testing and certification:</p> <p>1. Thermal Performance: U-Factor, Air Infiltration, Condensation Resistance</p> <p>2. Air Leakage: Air Infiltration</p> <p>3. Structural: Structural Performance</p> <p>4. Workability/Installability: Workability and Installability</p>

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- R-5
- ❖ U-factor
 - ❖ Air leakage
 - ❖ Certifications
 - ❖ Warranty
- Low-e
- ❖ Emissivity
 - ❖ Glass thickness
 - ❖ Structural test
 - ❖ Warranty



Primary Window Certification Programs

Thermal – NFRC

Label to appear on window

Structural – NAFS '05

Performance Grade=R25+



Authorized Organizations

AAMA, Keystone, NAMI, WDMA





Low-e Storm Window Requirements

Somewhat different than R-5 window requirements

- 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.





Warranty Coverage of Products

Minimum Requirements

- 20 years on glass
- 10 years on parts

Allows manufacturers to offer more coverage as a means to increase value of products





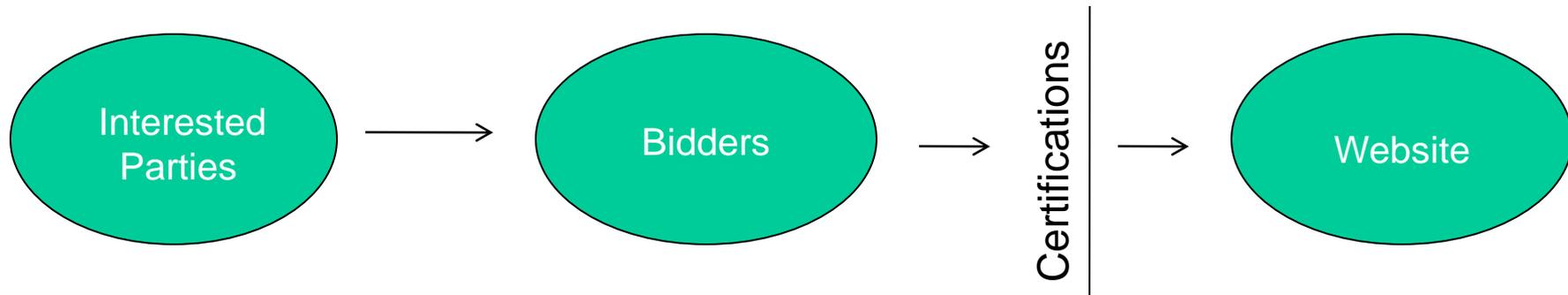
Solicitation Schedule

- Vendors were given two months (Feb 19) to submit bids.
 - All those meeting the specifications and requirements were allowed into the program.
 - Awards not based on bid prices.
- Requirements were intentionally kept simple.
 - Submit a compliance letter
 - At least one window product meeting specifications



Response to Solicitation

- 62 vendors submitted qualified bids
 - 37 identified themselves as regionally based.
 - 25 identified themselves as nationally based.
 - 20 capable of delivering products to Canada.
 - 11 entered bids for low-e storm windows.
 - 9 of the top 16 window manufacturers by sales.





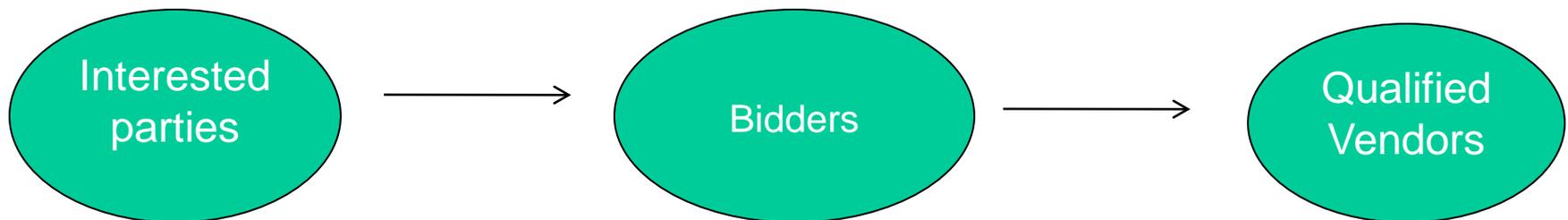
After Bid Submittal

- Checklist of items required for listing on the website
 - Windows : Thermal and structural certification programs
 - Low-e Storm : IGDB and ANSI/AAMA test report
 - Warranty
 - URL address
 - Agreement letter: Signed agreement between PNNL and participant
 - Both sides free to disengage the other at any time during the program.
 - References Specifications Document and Monthly Sales Reporting Document.



After Bid Submittal

As criteria are met, qualified bidders products are listed on the website and become qualified vendors.





Products and Prices

- Minimum order of 15/20 for retrofit/new windows
- Minimum order of 1 for sliding glass doors
- Minimum order of 5 for low-e storm windows
 - Sellers are expected to honor all requests which meet the minimum order requirement.
- Prices shown are range from maximum
 - Does not include shipping, installation or added features.
 - Can offer free installation services at existing price.



Website

- www.windowsvolumepurchase.org



Future Program Activities

- Verify maximum prices bid by qualified vendors.
- Collect aggregate sales information and convey to DOE.
- Phase II – Spring 2011
 - Consider adding additional window types.
 - Consider specifications changes: U-factor, include regional SHGC, raise structural performance grade.
- Engage industry early, establishing scope of Phase II.



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Phase I Solicitation

Questions?