



# **Commercialization Plan Support for Development of Low Cost Vacuum Insulating Glazing**

**Cooperative Research and  
Development Final Report**

**CRADA Number: CRD-11-449**

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**CRADA Report**  
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In accordance with Requirements set forth in Article XI, A(3) of the CRADA document, this document is the final CRADA report, including a list of Subject Inventions, to be forwarded to the Office of Science and Technical Information as part of the commitment to the public to demonstrate results of federally funded research.

**Parties to the Agreement:** V-Glass, LLC

**CRADA Number:** CRD-11-449

**CRADA Title:** Commercialization Plan Support for Development of Low Cost Vacuum Insulating Glazing

**Joint Work Statement Funding Table Showing DOE Commitment:**

<b>Estimated Costs</b>	<b>NREL Shared Resources</b>
Year 1	\$ 30,000.00
Year 2	\$ 120,000.00
Year 3	\$ 120,000.00
TOTALS	\$ 270,000.00

**Abstract of CRADA Work:**

During the duration of this CRADA, V-Glass and NREL will partner in testing, analysis, performance forecasting, costing, and evaluation of V-Glass’s GRIPWELD™ process technology for creating a low cost hermetic seal for conventional and vacuum glazing. Upon successful evaluation of hermeticity, V-Glass’s GRIPWELD™ will be evaluated for its potential use in highly insulating window glazing.

**Summary of Research Results:**

NREL partnered with V-Glass to test, analyze and generally access the V-Glass GRIPWELD process technology. The He leak rate testing was conducted using an Inficon UL1000 leak detector to determine the integrity of the seal. STEM analysis was performed in an effort to determine the extent of the mixing of the Aluminum Coating, applied via the Gripweld process, and the soda-lime glass substrate.

**Subject Inventions Listing:**

None

**Report Date:**

5/18/15

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