



June 22, 2009

Mr. John Smith  
ABC Company  
123 Main Street  
Washington, DC 20001

Dear Mr. Smith :

The attached economic analysis report was completed using Demand Analyzer, an energy simulation software package developed by ITEM Systems. As demonstrated within the report, the application of energy conservation products to your building may result in significant energy cost savings. For the products considered, the projected annual savings is \$70,923 and the minimum payback period is 3.21 years.

Demand Analyzer utilizes the U.S. Department of Energy's sophisticated DOE-2 building energy analysis software for estimating energy savings for building projects. DOE-2 is a whole-building analysis program that calculates energy use and operating cost for each hour of the year, using typical weather data for the selected location. DOE-2 is widely used by consulting engineers for the design of energy-efficient buildings; by researchers for impact analysis of new heating, cooling and lighting technologies; and by state and federal agencies for developing energy-efficiency standards. DOE-2 is internationally recognized for the accuracy of its energy analysis algorithms as well as its ability to model a variety of buildings, HVAC systems and energy conservation measures. Additional information about ITEM Systems and Demand Analyzer is available at <http://www.item.com> and DOE-2 information can be found at <http://gundog.lbl.gov>.

The attached report summarizes the input data used to model your building and the resulting energy and cost savings for 3M Window Film products. You can be confident that your choice in installing 3M Window Films for your building is the right decision. Trusted and respected all over the world, 3M offers the best products to help you save money and assist in maintaining a comfortable building environment.

Thank you for your consideration of 3M Window Film products.

Sincerely,

Prepared By:

Project:

Project Location:

Climate Zone Used:

*Economic Analysis Summary*

	<b>Annual Energy Cost (\$)</b>	<b>Annual Energy Cost Savings (\$)</b>	<b>Installed Cost (\$)</b>	<b>Simple Payback (Years)</b>
<i>Without Film</i>	1,344,027	-----	-----	-----
<i>PR40</i>	1,284,686	59,341	262,500	4.42
<i>NV25</i>	1,273,104	70,923	227,500	3.21

The energy savings shown are based on methods using the U.S. Department of Energy's DOE-2 energy simulation program. The methods used are believed to be reliable, but the accuracy and completeness thereof is not and cannot be guaranteed. Neither the party presenting this report, AIMCAL, the referenced film manufacturer, or the film seller assumes liability in connection with the inability to realize the estimated energy savings shown.

## Building Parameter Summary

	<b>Without Film</b>	<b>PR40</b>	<b>NV25</b>
<i>Building Type</i>	Large Office	Large Office	Large Office
<i>Vintage</i>	Pre-1978	Pre-1978	Pre-1978
<i>Category</i>	ABC	ABC	ABC
<i>Climate Zone</i>	Washington, DC	Washington, DC	Washington, DC
<i>Utility Rates</i>	default	default	default
<i>Floor Area (ft2)</i>	386000	386000	386000
<i>Aspect Ratio (E-W width / N-S width)</i>	3.0	3.0	3.0
<i>Number of Stories</i>	3	3	3
<i>Building Azimuth (degrees)</i>	45.0	45.0	45.0
<i>Electricity: Energy Cost per kWh</i>	0.14	0.14	0.14
<i>Electricity: Demand Cost per kW</i>	0.25	0.25	0.25
<i>Electricity: Minimum Demand Cost per kW</i>	0.0	0.0	0.0
<i>Electricity: Fixed Cost per Month</i>	0.0	0.0	0.0
<i>Electricity: Minimum Cost per Month</i>	0.0	0.0	0.0
<i>Electricity: Maximum Effective Rate per kWh</i>	0.0	0.0	0.0
<i>Natural Gas: Energy Cost per therm</i>	1.0	1.0	1.0
<i>Natural Gas: Fixed Cost per Month</i>	0.0	0.0	0.0
<i>Natural Gas: Minimum Cost per Month</i>	0.0	0.0	0.0
<i>Natural Gas: Maximum Effective Rate per therm</i>	0.0	0.0	0.0
<i>Occupant Density (ft2/person): Offices</i>	386.0	386.0	386.0
<i>Indoor Occupancy Sensors</i>	No	No	No
<i>Indoor Lighting (W/ft2): Offices</i>	0.9	0.9	0.9
<i>Outdoor Lighting: Type</i>	Metal Halide Lamps	Metal Halide Lamps	Metal Halide Lamps
<i>Electrical Equipment (W/ft2): Offices</i>	0.9	0.9	0.9
<i>Thermostat Setting (F): Heating, Setback</i>	72.0	72.0	72.0
<i>Thermostat Setting (F): Cooling, Setback</i>	74.0	74.0	74.0
<i>Thermostat Setting (F): Heating, Offices</i>	72.0	72.0	72.0
<i>Thermostat Setting (F): Cooling, Offices</i>	74.0	74.0	74.0
<i>Ceiling/Roof Insulation (R-val)</i>	11.0	11.0	11.0
<i>Roof Absorptance</i>	0.8	0.8	0.8
<i>Air Curtain Entrance</i>	No	No	No
<i>Adjacent Shading: North</i>	No	No	No
<i>Adjacent Shading: East</i>	No	No	No
<i>Adjacent Shading:</i>	No	No	No

<i>South</i>			
<i>Adjacent Shading: West</i>	No	No	No
<i>Window Area (ft2): North</i>	2403.0	2403.0	2403.0
<i>Window Area (ft2): East</i>	5460.0	5460.0	5460.0
<i>Window Area (ft2): South</i>	7628.0	7628.0	7628.0
<i>Window Area (ft2): West</i>	19819.0	19819.0	19819.0
<i>Window Setback (ft): North</i>	0.0	0.0	0.0
<i>Window Setback (ft): East</i>	0.0	0.0	0.0
<i>Window Setback (ft): South</i>	0.0	0.0	0.0
<i>Window Setback (ft): West</i>	0.0	0.0	0.0
<i>Window Shading (SC): North</i>	0.5	0.5	0.5
<i>Window Shading (SC): East</i>	0.5	0.5	0.5
<i>Window Shading (SC): South</i>	0.5	0.5	0.5
<i>Window Shading (SC): West</i>	0.5	0.5	0.5
<i>Window Glass Type: North</i>	7000,1/4" Clear Glass	<b>9206,Prestige 40 on 1/4" Clear Glass</b>	<b>7850,NV-25 on 1/4" Clear Glass</b>
<i>Window Glass Type: East</i>	7000,1/4" Clear Glass	<b>9206,Prestige 40 on 1/4" Clear Glass</b>	<b>7850,NV-25 on 1/4" Clear Glass</b>
<i>Window Glass Type: South</i>	7000,1/4" Clear Glass	<b>9206,Prestige 40 on 1/4" Clear Glass</b>	<b>7850,NV-25 on 1/4" Clear Glass</b>
<i>Window Glass Type: West</i>	7000,1/4" Clear Glass	<b>9206,Prestige 40 on 1/4" Clear Glass</b>	<b>7850,NV-25 on 1/4" Clear Glass</b>
<i>Efficient Office Copiers</i>	Yes	Yes	Yes
<i>DHW Heater Type</i>	Gas	Gas	Gas
<i>DHW Heater Efficiency</i>	0.8	0.8	0.8
<i>DHW Tank Insulation</i>	Yes	Yes	Yes
<i>DHW Pipe Insulation</i>	Yes	Yes	Yes
<i>DHW Circulation Pump Timeclock</i>	No	No	No
<i>Air Handler Type</i>	Variable Air Volume	Variable Air Volume	Variable Air Volume
<i>Ventilation Rate (cfm per person)</i>	20.0	20.0	20.0
<i>Oversized Coils</i>	No	No	No
<i>Duct Insulation</i>	Yes	Yes	Yes
<i>Air Side Economizer</i>	No	No	No
<i>HVAC System Clocks</i>	No	No	No
<i>Energy Management System</i>	Yes	Yes	Yes
<i>Deadband Thermostats</i>	No	No	No
<i>Heating Plant</i>	Gas Boilers	Gas Boilers	Gas Boilers
<i>Cooling Plant</i>	Centrifugal Chillers	Centrifugal Chillers	Centrifugal Chillers
<i>Cooling Tower</i>	Propeller Fans	Propeller Fans	Propeller Fans
<i>Heating Plant Efficiency</i>	0.75	0.75	0.75
<i>Cooling Plant Efficiency</i>	4.5	4.5	4.5

<i>Hot Water Reset</i>	No	No	No
<i>Chilled Water Reset</i>	No	No	No
<i>VSD Hot Water Pumps</i>	No	No	No
<i>VSD Chilled Water Pumps</i>	No	No	No
<i>Flue Heat Retriever</i>	No	No	No
<i>Infrared Space Heaters</i>	No	No	No
<i>Chiller Strainer Cycle</i>	No	No	No
<i>Chiller Optimizer</i>	No	No	No
<i>Thermal Energy Storage</i>	No	No	No
<i>Indirect Evaporative Pre-Cooling</i>	No	No	No