A more intelligent window

Brandon Tinianov, Ph.D., P.E.
Sr. Dr. Business Development
We’re naturally drawn to daylight expansive views connect us to the outdoors
but the sun’s heat and glare require design compromises

blinds and shading structures turn windows into walls
but the sun’s heat and glare require design compromises

blinds and shading structures turn windows into walls
Clear when you want it
tints when you need it
Intelligence that follows the sun to maintain comfort
The technology of comfort

Glass

Solid-state coating with nano-layers of metal oxides

Small electrical voltage changes states between clear and tint

SOLAR HEAT

VISIBLE LIGHT
Only technology to pass accelerated environmental durability testing

ASTM Testing done at NREL
1 sun (1000W/m²) at 85°C
>50,000 cycles
Equivalent to >50yr lifetime

Assumes window switches
3 times per day
IGCC/IGMA

50k cycles of NREL testing

100k cycles of internal testing

>50yr lifetime

Long-term durability by design
Seamlessly transitions through four states

Visual Light Transmission: 58
Solar Heat Gain Coefficient: .46

Visual Light Transmission: 40
Solar Heat Gain Coefficient: .29

Visual Light Transmission: 20
Solar Heat Gain Coefficient: .16

Visual Light Transmission: 3
Solar Heat Gain Coefficient: .09
Ciri Fireweed tower
Anchorage, AL
Increasing workforce productivity

This is the opportunity: a 6-15% Increase in productivity with daylighting
Reducing peak cooling load by 23%
Energy use
High rise office

Reducing lighting electricity and HVAC by 20%

Savings 20%

Traditional Building
- Lighting 35%
- Cooling 38%
- Airflow & Pumps 27%

Dynamic Building
- Lighting 28%
- Cooling 31%
- Airflow & Pumps 21%
Quality care delivery

Humber River Hospital,
Toronto, ON, Canada

25,800
Square feet
Humber River Hospital, Toronto, ON, Canada

Project
- Canada’s first completely “Digital” hospital
- 25,800 sf. of glass in patient rooms and common areas

Why dynamic glass?
- Dynamic Glass selected over the automated integral blinds planned for project
- Dynamic glass was lower cost, easier to install, and more durable
Methodist Olive Branch Hospital, Olive Branch, MS

Quality care delivery
Methodist Olive Branch Hospital, Olive Branch, MS

Project
Methodist Olive Branch Hospital main entrance and lobby area

Why View?
35% HVAC system reduction with immediate $22,000 cost savings
5-year payback with $2,000 annual energy savings
Additional LEED project credits
Uninterrupted views to the outdoors and a compatible building design
Energy efficiency
Robert Clark State Building,
Jackson, MS

**Project**

Project Planned major renovation including HVAC system for aging building

Stock glass was tinted monolithic glass

**Why View?**

Retrofit was constrained by low ceiling heights and limited mechanical space

By retrofitting windows to View Dynamic Glass, proposed HVAC system was downsized by 34% (37.2 tons)

Expected increased annual energy savings of 15% ($7,700)
Enhanced building value

435 Indio
Net Zero Renovation
Sunnyvale, CA
Project

30,000 sf, 40 year old tilt up
Speculative deep energy retrofit

Why View?

True integrative design approach
Daylighting was a design requirement
Operable, dynamic windows were a comfort and energy objective
88% reduction in HVAC, near Net Zero project

Positive Market response

Under contract in 3 months
Long term lease
Above market rates
Connor Group
Dayton, OH

Thank You