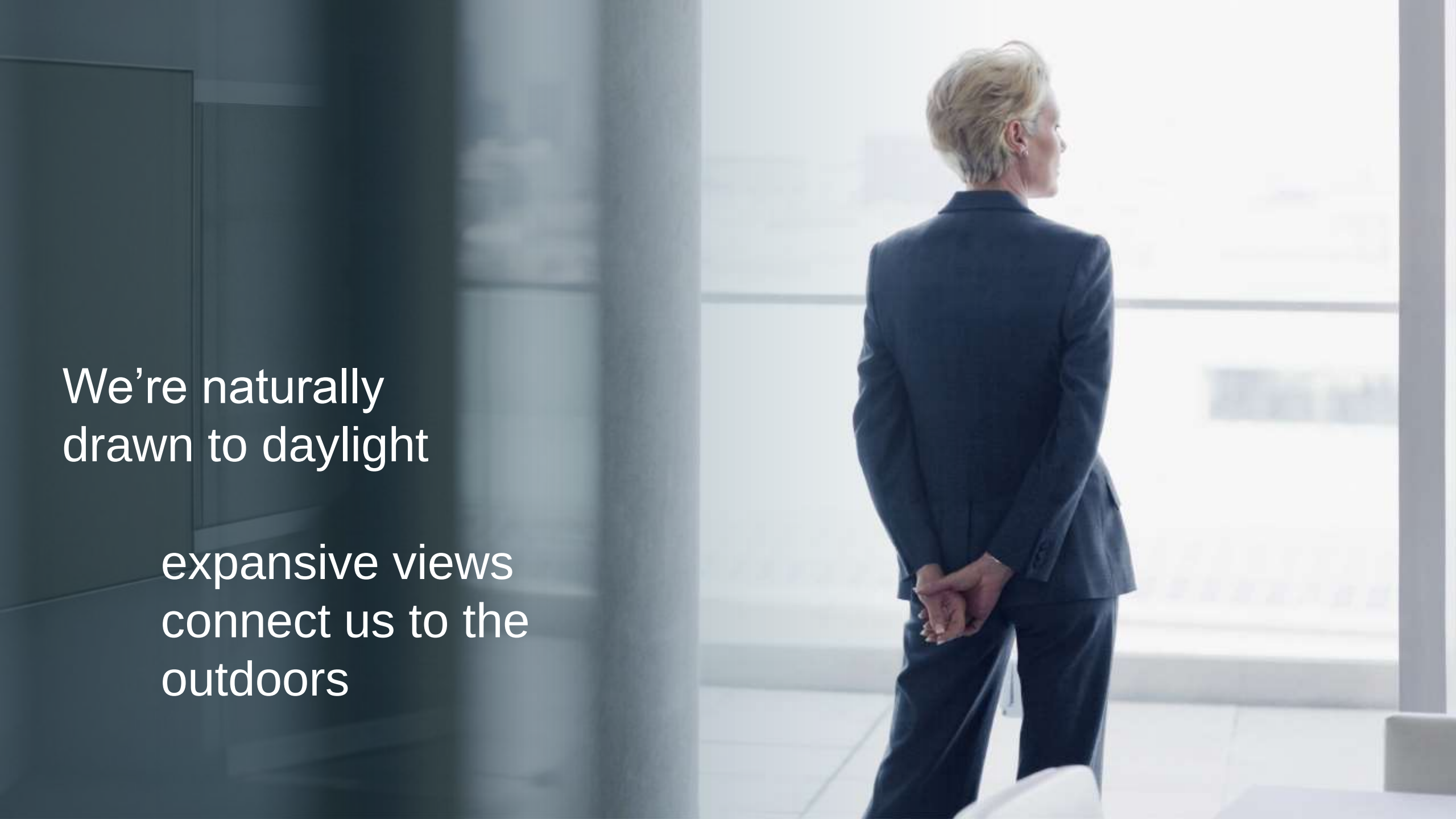

view
Dynamic Glass
A more intelligent window
Brandon Tinianov, Ph.D., P.E.
Sr. Dr. Business Development

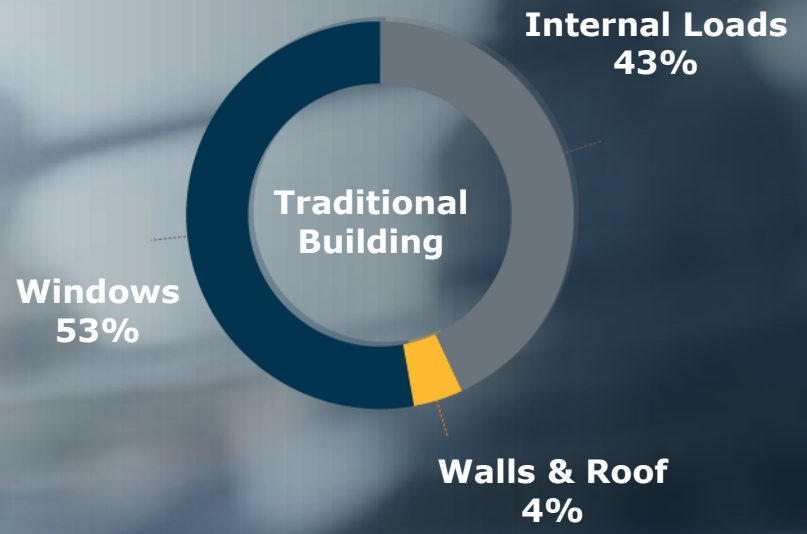
We’re naturally drawn to daylight

expansive views connect us to the outdoors



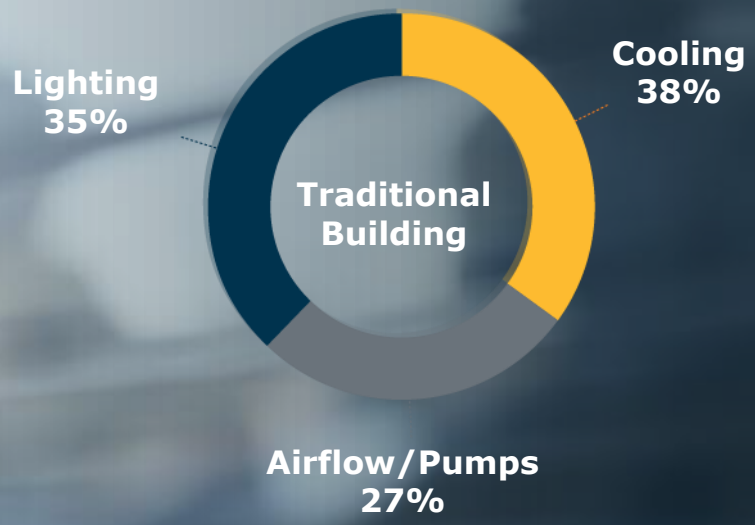
but the sun’s heat and glare require design compromises

blinds and shading structures turn windows into walls



but the sun’s heat and glare require design compromises

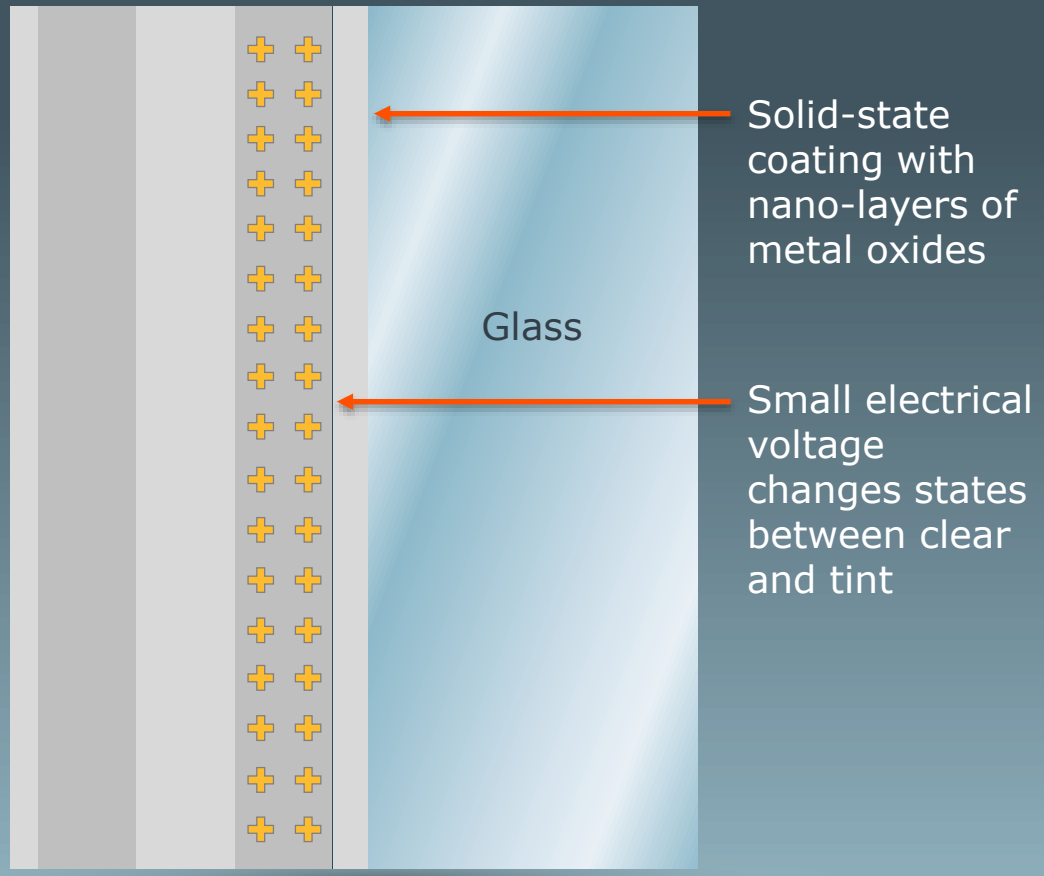
blinds and shading structures turn windows into walls




view
Dynamic Glass
Clear when you want it
tints when you need it

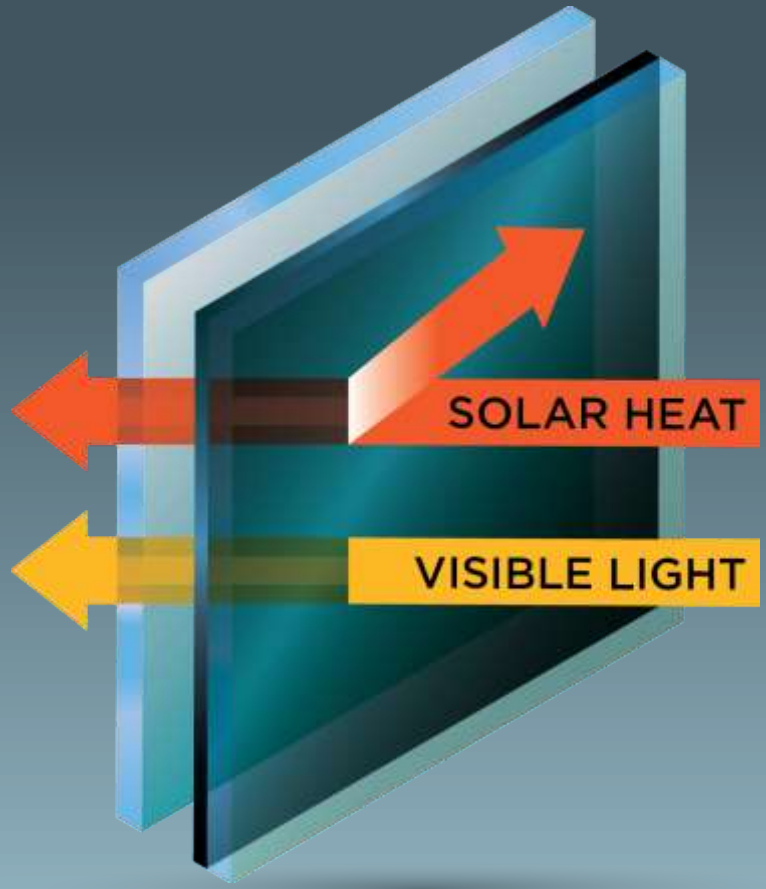

Intelligence that follows the sun
to maintain comfort

The technology of comfort



Solid-state coating with nano-layers of metal oxides

Small electrical voltage changes states between clear and tint



Long-term durability by design

Only technology to pass accelerated environmental durability testing

ASTM Testing done at NREL
1 sun (1000W/m^2) at 85°C
>50,000 cycles
Equivalent to >50yr lifetime

Assumes window switches 3 times per day

IGCC/IGMA

50k cycles of NREL testing

100 k cycles of internal testing

>50yr lifetime

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

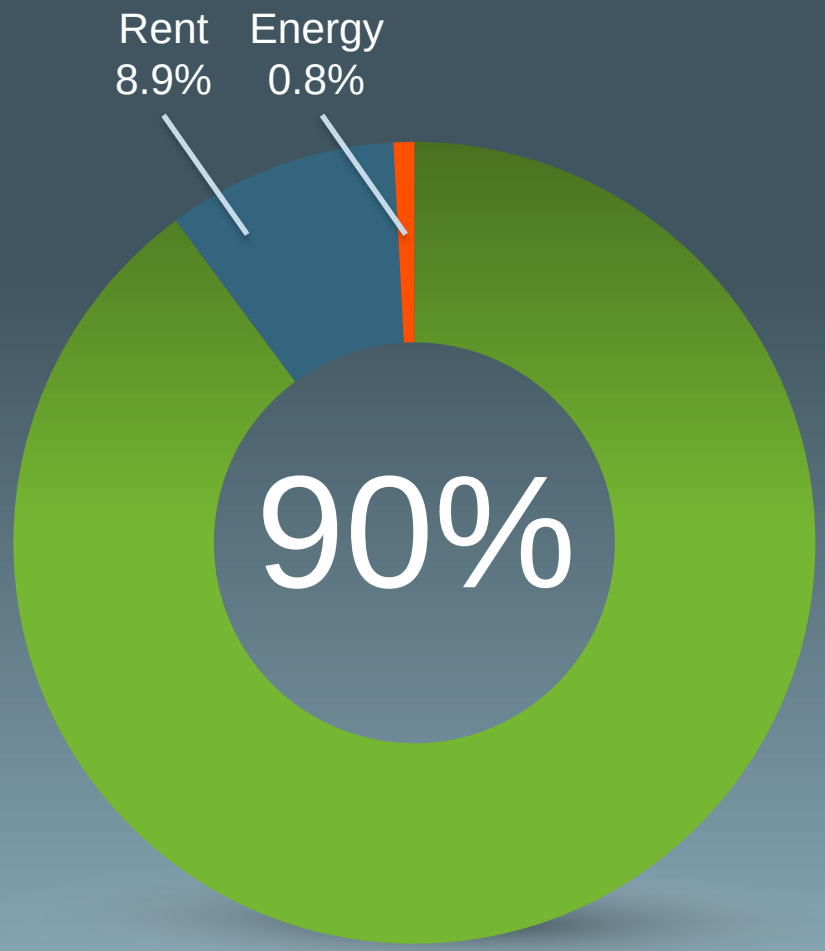
Visual Light Transmission: 3
Solar Heat Gain Coefficient: .09

DRIVING BUILDING VALUE

Ciri Fireweed tower
Anchorage, AL

PRODUCTIVITY

Increasing workforce productivity

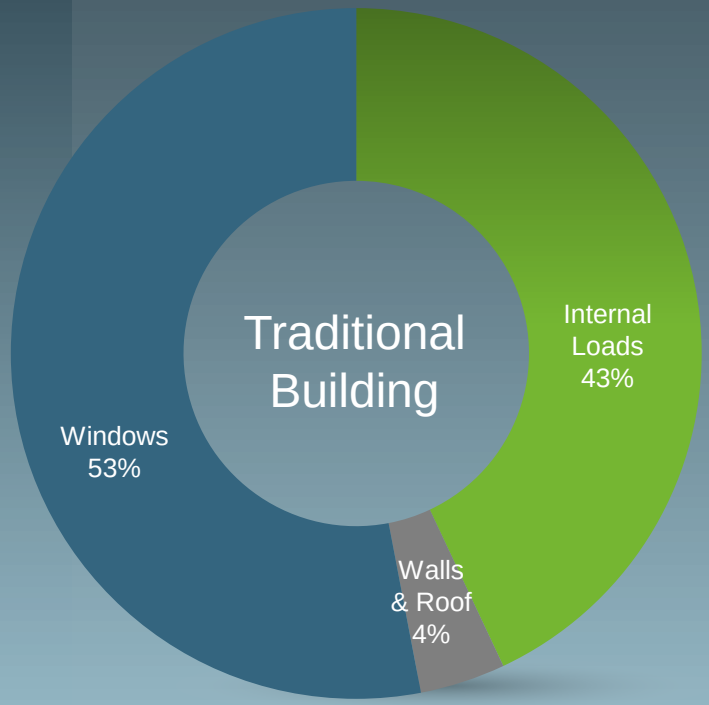


This is the opportunity:
a 6-15% Increase in productivity with daylighting

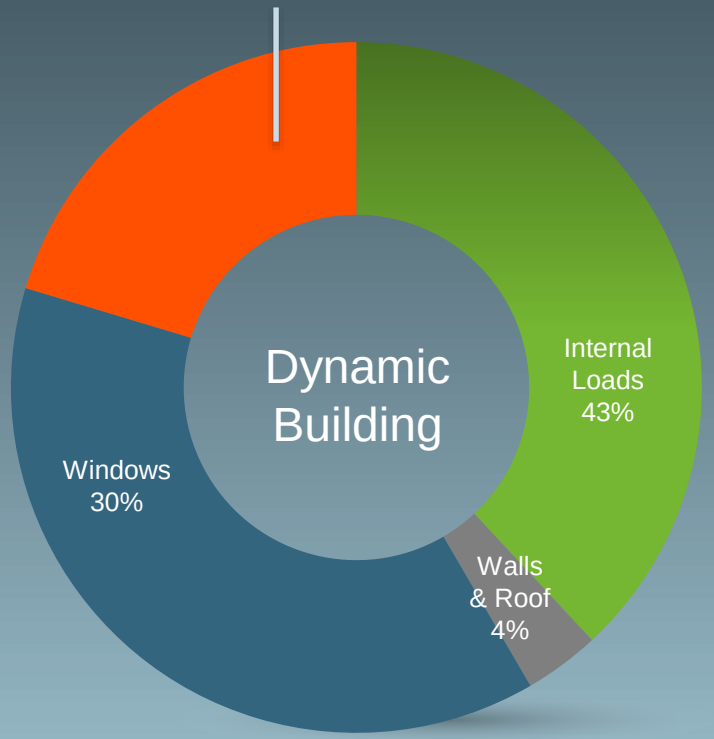
Peak Load

High rise office

Reducing peak cooling load by 23%



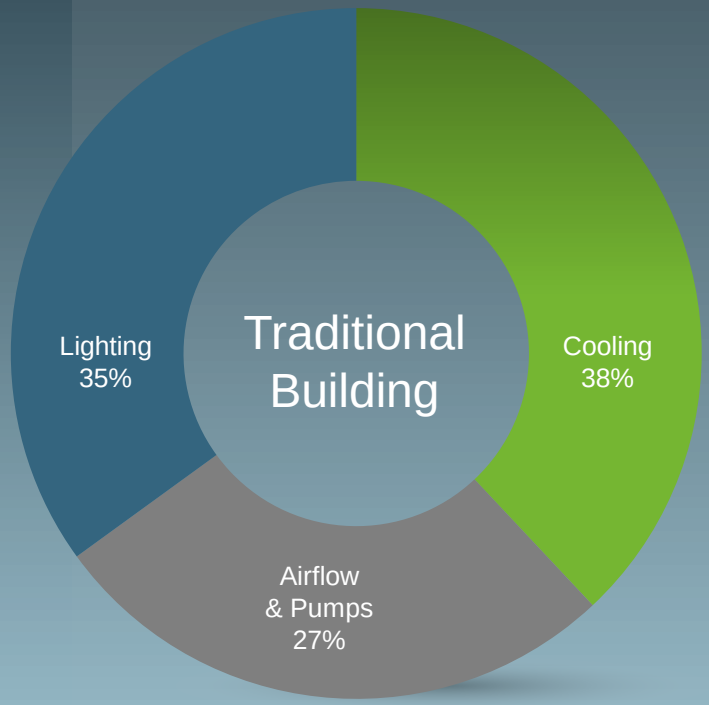
Savings 23%



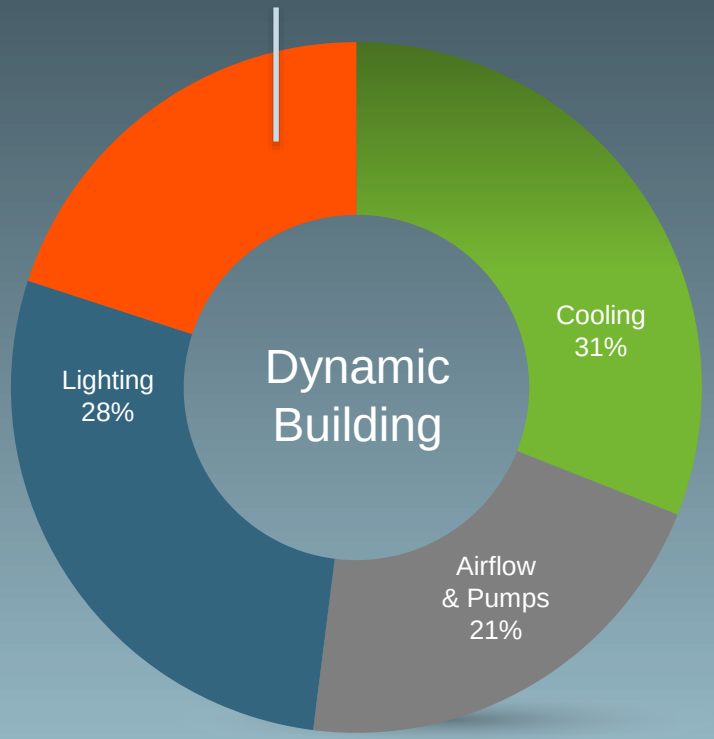
Energy use

High rise office

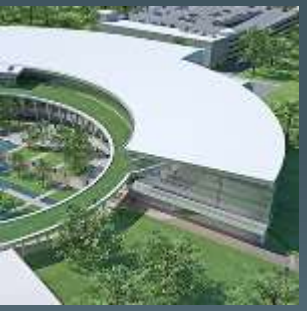
Reducing lighting electricity and HVAC by 20%



Savings 20%



MOMENTUM




60
projects
installed













27
more in
progress




Humber River Hospital,
Toronto, ON, Canada

Quality care delivery

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

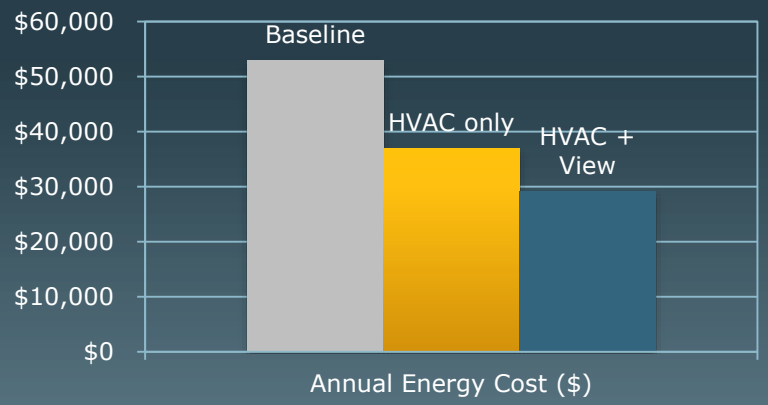
Additional LEED project credits

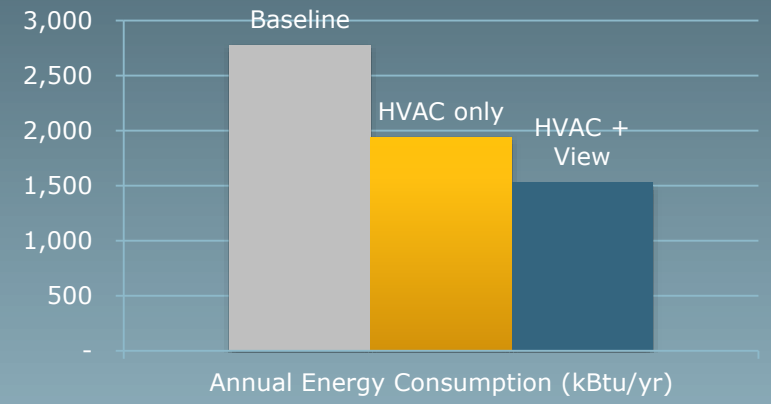
Uninterrupted views to the outdoors and a compaitble building design

Robert Clark State Building,
Jackson, MS

Energy efficiency

Robert Clark State Building, Jackson, MS





Engineering Resource Group, Inc.

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)

435 Indio
Net Zero Renovation
Sunnyvale, CA

Enhanced building value

435 Indio,
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