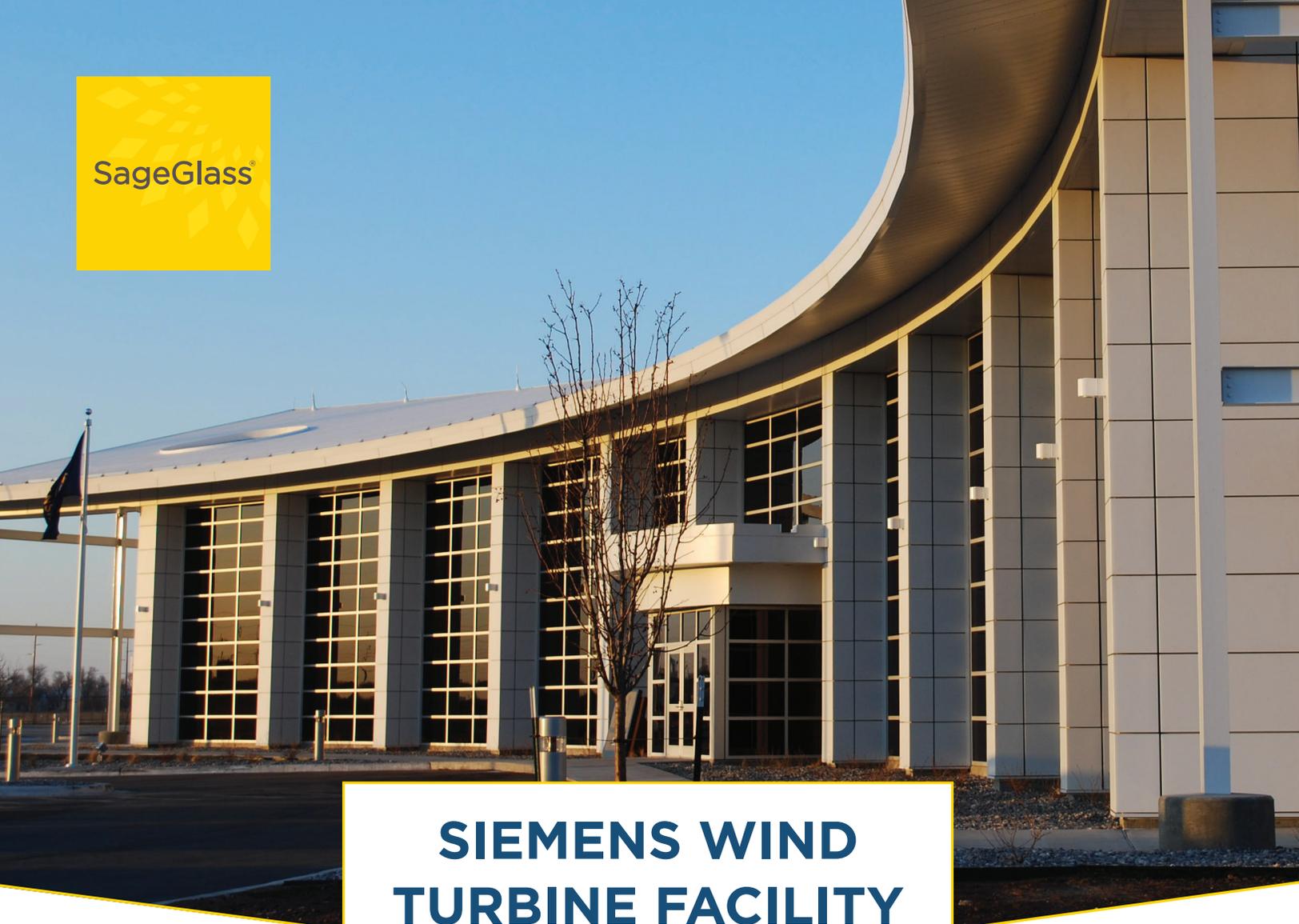




SageGlass®



SIEMENS WIND TURBINE FACILITY

Hutchinson, Kansas, USA

CASE STUDY

CHALLENGE

Beginning at the earliest stages of design, glass was always a central component of the architect and design team's vision for the new, 300,000 square-foot Siemens wind turbine facility in Hutchinson, Kansas. However, function threatened to undermine form.

The design-build team at GNF Architects and Gray Construction discovered that the aesthetic of the glass wall planned for the building's front façade would be compromised once conventional systems were added to reduce glare and solar heat gain. Such measures are mandatory with low-e glass in this region of the U.S., known for its abundant sunshine and long, hot summers.

The facility's original rendering included the addition of automatically controlled exterior horizontal louvers, which would rotate to block sunlight during the peak hours of solar gain and glare. However, this approach did not suit the architects, whose point of adding so much glass to the design was to flood the interior with natural light and maintain an unobstructed view to the outside for the people inside.

"SageGlass helped us exceed our customer's expectations by allowing us to design a beautiful showcase building with abundant use of glass, without compromising their sustainability goals."

Randall Vaughn

Architect, Gray Construction



SAINT-GOBAIN

Siemens Wind Turbine Facility

Hutchinson, Kansas, USA

SageGlass®

SOLUTION

After researching alternative options for managing sunlight, designers ultimately chose to specify dynamic SageGlass® glazing for the Siemens facility front façade. “We explored several options, including mechanical sun shades, blinds and louvers, as well as extended overhangs and canopies,” said Randall Vaughn, architect, Gray Construction. “All of these options detracted from the design and sustainability goals of the project. Then we found SageGlass. It provided an elegant solution to our sun challenges by changing from a clear to a tinted to a shaded state in response to changing light conditions.”

The 4,900-square-foot curtain wall features automatic variable tinting in 30 zones, which are integrated into the Siemens building management system. A manual override allows authorized personnel to make additional adjustments by zone as necessary

BENEFITS

By specifying SageGlass glazing instead of conventional low-e glass and automated external louvers, the design team has seen its architectural vision transformed into reality, with no aesthetic compromises required to manage incoming sunlight.

The unobstructed curtain wall creates a clean, contemporary look to the building façade. Inside, employees and visitors enjoy abundant natural light with minimal glare, along with comfortable room temperatures and clear views of the grounds — throughout the year and in all lighting conditions. The dynamic glass also reduces dependence on artificial lighting and HVAC systems, resulting in a highly energy-efficient building. SageGlass helped the project earn LEED® Gold certification.

Gray Construction is extremely satisfied with the results of the Siemens Wind Turbine Assembly Facility project. SageGlass provided the solar control solution that fit the architects' aesthetic vision while costing less to install and maintain than alternative conventional options.



SageGlass automatically tints as needed to control glare and solar heat gain throughout the day on the building's front façade, while maintaining clear views outside. The team was pleased to learn that this advanced glazing technology had a lower initial cost than conventional static solutions.

ARCHITECT: GNF Architects and Engineers

GLAZING CONTRACTOR: Gray Construction

WHY SAGEGLASS?

The pioneer of the world's smartest electrochromic glass, SageGlass® is the ultimate connector between the built and natural environments. SageGlass tints on demand to optimize daylight, reduce glare and manage heat – all while maintaining unobstructed views of the outdoors. With SageGlass, architects and building owners can improve occupant comfort and reduce energy demand in buildings. As a wholly owned subsidiary of Saint-Gobain, SageGlass is backed by more than 350 years of building science expertise. Learn more at www.SageGlass.com or join SageGlass on Twitter, Facebook and LinkedIn.

sageglass.com / info@sageglass.com / 877.724.3321



© SAGE Electrochromics, Inc. All rights reserved.
SageGlass is a registered trademark of SAGE Electrochromics, Inc.
MKT_46.3