

## FIBERGLASS WINDOW WALL DELIVERS INCREASED GLAZING AREA AND ENERGY PERFORMANCE

RDH report demonstrates high-performance fiberglass window wall can significantly increase glazing area—while still delivering world-class energy performance

### SUMMARY

A recent report issued by industry-leading firm RDH Building Science compared traditional aluminum window wall with high-performance fiberglass window wall.

In several modelled scenarios, the report shows how fiberglass window wall can increase a building's window-to-wall ratio (WWR) by 48% compared to traditional aluminum, while still delivering comparable energy performance.

While this increase in glazing area is exciting for architects and developers looking to maximize WWR, the underlying performance data offers additional project benefits.

By utilizing a typical fiberglass window wall assembly (U-0.24, SHGC-0.27, spandrel R-15), architects and developers can choose how they capitalize on the significant performance improvement of their overall building envelope.

Options include lowering long-term operating costs, recapturing square footage—care of reduced mechanical systems—or as shown in the report, increasing glazing area.

At its core, this report demonstrates not only the opportunity to increase building glazing area—while still delivering improved energy performance—but also the design flexibility gained when high-performance window wall is utilized as the basis of design.

To learn more, visit [cascadiawindows.com](http://cascadiawindows.com)

### WORKS CITED

Eric Catania, MEng, P.Eng.,CPHD, BEMP, LEED AP / Malin Ek, MSc. 2020. RDH Report – As needed energy & thermal support - 03565.306. Commissioned Report, Burnaby: RDH Building Science.

### ALUMINUM WINDOW WALL

40%

WINDOW-TO-WALL RATIO

TEDI - 35 kWh/m<sup>2</sup>  
EUI - 111 kWh/m<sup>2</sup>



### FIBERGLASS WINDOW WALL

65%

WINDOW-TO-WALL RATIO

TEDI - 30 kWh/m<sup>2</sup>  
EUI - 109 kWh/m<sup>2</sup>

