WHO WE ARE

The World’s Largest Sustainable Facade Manufacturer

20 Years in Construction Industry

A Proudly North American Company
WHAT DO WE MANUFACTURE?
Mix and match different facings without altering the installation. Interchangeable, multi-facing materials such as stone, porcelain, glass, brick, or coated aluminum surfaces.

Ultra lightweight aluminum honeycomb core technology.

Customizable Facing

Ultra Lightweight Advanced Backing Technology

Sustainable, energy generating facades at no extra cost. Energy-efficient solution for both existing and new facades. Endless surface design options.

Solar Cell
CONSTRUCTION CHALLENGES
SYSTEMS OPTIONS

RAINSCREEN SYSTEM
Stick-Build & Pre-Assembled

PRE-FAB WALL SYSTEM

UNITIZED FACADE SYSTEM
Integration to Other Assemblies
SYSTEMS OPTIONS

RAINSCREEN SYSTEM
Stick-Build & Pre-Assembled

PRE-FAB WALL SYSTEM

UNITIZED FACADE SYSTEM
Integration to Other Assemblies
An air pressurized cavity wall system designed to eliminate water penetration and allow ventilation. This system consists of two options: stick-build cladding where installation is panel by panel, and pre-assembled cladding where the panels are prefabricated and installed as a single unit. This results in faster installation and minimizes connection points to substrate.

- Continuous insulation and AWB.
- Achieves irregular designs.
- Precise installation.
- Stick-build requires a backup wall, whereas preassembled requires structural slabs only.
- Panels can span floor to floor and be attached to slabs only.
- Pre-Assembled has faster installation since the panels are prefabricated and installed as one unit.
- Less connection points allow for reduced thermal bridging.
SYSTEMS OPTIONS

RAINSCREEN SYSTEM
Stick-Build & Pre-Assembled

PRE-FAB WALL SYSTEM

UNITIZED FACADE SYSTEM
Integration to Other Assemblies
PRE-FAB WALL SYSTEM

The system is a hybrid of window wall and precast architectural wall panels, spanning slab to slab and transferring all the component loads to the building structure.

- Installation from inside.
- Rapid, year-round installation.
- Slab to slab panel sizes.
- Reduced costs for design, transportation & installation.
- No need for structural backup of the wall.
- Lightweight panel system (no tower crane & concrete embeds needed).
SYSTEMS OPTIONS

RAINSCREEN SYSTEM
Stick-Build & Pre-Assembled

PRE-FAB WALL SYSTEM

UNITIZED FACADE SYSTEM
Integration to Other Assemblies
Integration into window walls, curtain walls, mega-panels, modular systems, etc by working with other service providers. This allows for a uniform installation system for the entire building based on prefabricated wall assemblies.

- Preassembled solution for Integration into window walls, curtain walls, mega-panels, modular systems, etc by working with other service providers.
- Prefabricated units contain supporting structure and exterior wall panels.
- Quick installation done all at once.
- Large panel sizes (12’ x 25’) and slab to slab connections.
- Prefabricated wall assemblies made and sent to site.
Custom shapes are achieved through prefabricated panel assemblies.

Compatible with manual or automated movable panel system, which can be an added benefit for active panels.

With the combination of active, non-active panels & voids in between, the essence of a perforated facade can be captured.
DEVELOPER: Tridel, Hines
ARCHITECT: 3XN, Kirkor Architects and Planners
BUILDING TYPE: Condo, Retail

NON-ACTIVE
AQUABELLA

- BIANCO BEIGE
- CLOSIMUM CREAM
- PUNTI MARRONI
- PURE WHITE

Porcelain
Porcelain
Porcelain
Porcelain
PROJECT SIZE: 4,000 SQFT
POWER OUTCOME: 59kW System
BUILDING TYPE: Industrial Retrofit
DEVELOPER: The Riedel Group
ARCHITECT: Richard Ziegler
BUILDING TYPE: Condo, Retail
INDUSTRIAL BIPV WALL

PROJECT SIZE: 10,000 SQFT
POWER OUTCOME: 110 kW System
BUILDING TYPE: Industrial

ACTIVE

CUSTOM DESIGN
Solar Stone

DESIGN & BUILD
AURA CONDOS

DEVELOPER: Canderel Residential
ARCHITECT: Graziani + Corazza Architects Inc.
BUILDING TYPE: Condo, Retail

CUSTOM COLOUR
Coated Aluminum

PORTUGUESE LIMESTONE
Natural Stone
MITREX & CLADIFY HEADQUARTERS

PROJECT SIZE:
Total: 20,000 SQFT
Active: 6,000 SQFT

POWER OUTCOME:
60kW System

BUILDING TYPE:
Office

NON-ACTIVE & ACTIVE

BIANCO THASSOS
Porcelain

POLARIS
Solar Solid Colour
THE MONTGOMERY

DEVELOPER:
Rockspot Group, Woodbourne Canada Management, Inc.

ARCHITECT:
Raw Design, Era Architects

BUILDING TYPE:
Rental, Retail

NON-ACTIVE

CUSTOM COLOUR
Coated Aluminum

INDIANA LIMESTONE
Natural Stone
MIDLAND COURTHOUSE

PROJECT SIZE: 10,000 SQFT
POWER OUTCOME: 280kW
BUILDING TYPE: Government

ACTIVE

NOCCIOLA
Solar Wood

CUSTOM COLOUR
Solar Solid Colour

M&C architects
BEANFIELD CENTRE-HOTEL X PEDESTRIAN BRIDGE

DEVELOPER: EllisDon
ARCHITECT: NORR Architects
BUILDING TYPE: Architectural Feature

INDIANA LIMESTONE
Natural Stone
THE SEE INSTITUTE, DUBAI

PROJECT SIZE: 1,500 SQFT
POWER OUTCOME: 20kW
BUILDING TYPE: Institutional

ACTIVE

CUSTOM DESIGN
Solar Metal

POLARIS
Solar Solid Colour
THE SHOPS AT
LANSDOWNE PARK

NON-ACTIVE

DEVELOPER:
Trinity Development Group
ARCHITECT:
Petroff Partnership Architects
BUILDING TYPE:
Commercial

WALLACE CREEK
Natural Stone
591 FINCH WEST

ACTIVE

PROJECT SIZE:
44,483 SQFT (Solar Cladding) 655 LFT (Solar Railing)

POWER OUTCOME:
375kW

BUILDING TYPE:
Residential
COLLABORATIVE HEALTH EDUCATION BUILDING (CHEB)

NON-ACTIVE

DEVELOPER: Dalhousie University
ARCHITECT: Moriyama & Teshima Architects
BUILDING TYPE: Institutional

WALLACE CREEK Natural Stone
PERLATO EUROPA Natural Stone
From solar glass to railing, roof and more, we aim to make any surface sustainable and energy generating.
OUR TECHNOLOGY

- Transparent Technology
- Semi-Transparent Technology
- Opaque Technology
SOLAR RAILING

DESIGNSYSTEMS

Transparent
Semi-Transparent
Semi-Opaque
Opaque

SolaRail
SolaRail²
SolaRail³

Post Cap
Metal Post
Mitrex Panel

Top Railing Cap
Railing Clamp
Railing Post
Mitrex Panel

Top Rail Cap
Mitrex Panel
Railing Shoe
Mitrex is the Solar Glass manufacturer and will only be the Solar Glass supplier, working with your preferred window manufacturer.
SOLAR ROOF

DESIGN

Black Asphalt
Grey Asphalt
Brown Asphalt
Black Slate

COMPONENTS

INSTALLATION

Waterproof Junction Box
Waterproof Male Connector
Waterproof Female Connector
Thank You!
SOLAR OPAQUE SWATCHES

*Note: Power is based per 1000 SQFT

- Cinnabar
- Morpho
- Peridot
- Mora
- Obsidian
- Cerberus
- Cassia
- Falco
- Eocene
- Cobaltic
- Filigrana
- Terra
- Cinis
- Charbon
- Chantilly
- Imperial
- Tramonto
- Aurora
- Nebula
- Ionian

+ Bring Your Design!
Using the visible light and colour spectrum, a patented coating is applied to the top layer of all products. The patented Mitrex coating is embedded into the facing layer which avoids any scratch or damage to occur. The coated facing layer absorbs all the colours except the one that is visible to the human eye. A small percentage of the energy from the sunlight is reflected, while the rest of the energy is absorbed by the solar cell and produces electricity. The advanced coating technology allows for a customizable facing to meet any design need while maximizing energy production.

* Reflection & heat absorption percentage depends on the colour and pattern selected.
The monitoring system allows you to:

- Visualize in real time the energy production in the system.
- Track the voltage & current of each string in the system.
- Track the energy production history.
- Get notifications of any fault in the system.

Software provided by Mitrex.
BIPV ENERGY GENERATING DRIVERS

Different sides of a building receive different amounts of sunlight based on the sun’s orientation.

In reality, panels that are sloped reduce the efficiency due to the exposure and collection of dust, sand, snow and dirt (-20% to -60%). Because of this, panels that are sloped need necessary maintenance.

Vertical panels will have minimal reduction in power due to dirt build-up. In addition, Mitrex has a patent anti-soiling coating that prevents any dirt, sand or dust settling onto the glass making the panels completely maintenance free.

Vertical Solar Module  70% Efficiency

Horizontal Solar Module  90% Efficiency

Sloped Solar Module  100% Efficiency

Torontosolarmodules
**PURCHASE OPTIONS**

**Supply Only**
- Supply only of solar products including panel to panel wiring connections, junction box, and installation manual.
- Mitrex also provides project analysis, and planning stage support including shop drawings.
- Building Owner owns BIPV system and electricity generated, resulting in a high return on investment and a quick payback period.

**Turnkey Services**

**Mitrex Power Agreement (MPA)**
- 30-Year Contract With Mitrex where Mitrex owns electricity generated and sells it back to the building at a lower rate than the electricity from the grid.
- Building Owner owns solar products.
- Includes Mitrex turnkey services such as installation and ongoing management of the system.

**Direct Purchase Agreement (DPA)**
- Building Owner owns solar products and the electricity generated.
- Mitrex turnkey services are included however management of the system is not.
- Full ownership will result in a high return on investment and a quick payback period.

*For Qualified Projects Mitrex offers the Above Ownership Options*
WHAT DO YOU THINK THE COST OF ENERGY WILL BE IN 30 YEARS...?
Electric Utility Revenue per kWh for Residential Customers for Ontario and Selected States

ELECTRICITY COST OVER THE YEARS

Electric Utility Revenue per kWh for Residential Customers for Ontario and Selected States


Energy Information Administration: State Energy Data System (SEDS).

On average electricity rates per kWh increase 1.4% - 1.7% per year in North America and almost doubles per decade.
REVENUE PAYBACK FOR A 2M² PANEL

In 30 years, 1 Opaque 2M² Panel will save you:

At 20¢ / kWh
$2,026 in Toronto
$2,836 in Dubai
$3,241 in LA

In 30 years, 1 Semi-Opaque 2M² Panel will save you:

At 20¢ / kWh
$1,807 in Toronto
$2,529 in Dubai
$2,891 in LA
## Energy & Revenue Generation

### Estimated Revenue Generated from a 2m² Opaque Panel

<table>
<thead>
<tr>
<th>Location</th>
<th>Orientation</th>
<th>Hours of Sun Per Day</th>
<th>kWh / Day</th>
<th>kWh / Year</th>
<th>EST Revenue Per Panel Annually</th>
<th>EST Revenue Per Panel After 30 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>South</td>
<td>2.5</td>
<td>0.9</td>
<td>338</td>
<td>$68</td>
<td>$2,026</td>
</tr>
<tr>
<td></td>
<td>East / West</td>
<td>2.0</td>
<td>0.7</td>
<td>27</td>
<td>$54</td>
<td>$1,621</td>
</tr>
<tr>
<td></td>
<td>North</td>
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<td>162</td>
<td>$32</td>
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<tr>
<td>Dubai</td>
<td>South</td>
<td>3.5</td>
<td>1.3</td>
<td>473</td>
<td>$95</td>
<td>$2,836</td>
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<td></td>
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<td>2.5</td>
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<tr>
<td></td>
<td>North</td>
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<td>0.6</td>
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<tr>
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<td>South</td>
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<td>1.5</td>
<td>540</td>
<td>$108</td>
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<td>270</td>
<td>$54</td>
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</tr>
</tbody>
</table>

### Solar Revenue

- **Solar Facade**
- **Solar Siding**
- **Solar Camouflage**
- **Solar Sound Barrier**
- **Solar Spandrel Panel**
- **Solar Roof**
## ENERGY & REVENUE GENERATION

### ESTIMATED REVENUE GENERATED FROM A 2M² SEMI-OPAQUE PANEL

#### TORONTO

<table>
<thead>
<tr>
<th>ORIENTATION</th>
<th>HOURS OF SUN PER DAY</th>
<th>kWh / DAY</th>
<th>kWh / YEAR</th>
<th>EST REVENUE PER PANEL ANNUALLY</th>
<th>EST REVENUE PER PANEL AFTER 30 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>2.5</td>
<td>0.8</td>
<td>301</td>
<td>$60</td>
<td>$1,807</td>
</tr>
<tr>
<td>East / West</td>
<td>2.0</td>
<td>0.7</td>
<td>241</td>
<td>$48</td>
<td>$1,445</td>
</tr>
<tr>
<td>North</td>
<td>1.2</td>
<td>0.4</td>
<td>145</td>
<td>$29</td>
<td>$867</td>
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</tbody>
</table>

#### DUBAI

<table>
<thead>
<tr>
<th>ORIENTATION</th>
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<tbody>
<tr>
<td>South</td>
<td>3.5</td>
<td>1.2</td>
<td>422</td>
<td>$84</td>
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<td>0.6</td>
<td>205</td>
<td>$41</td>
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</table>

#### LOS ANGELES

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<tbody>
<tr>
<td>South</td>
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<td>1.3</td>
<td>482</td>
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<td>East / West</td>
<td>3.0</td>
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<td>361</td>
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At 20¢ / kWh

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ESTIMATED REVENUE GENERATED FROM A 2M² SEMI-OPAQUE PANEL

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### ENERGY & REVENUE GENERATION

#### ESTIMATED REVENUE GENERATED FROM A 2M² TRANSPARENT PANEL

<table>
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<td><strong>DUBAI</strong></td>
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<td>166</td>
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<td>$484</td>
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<td><strong>LOS ANGELES</strong></td>
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<td>95</td>
<td>$19</td>
<td>$569</td>
</tr>
</tbody>
</table>

**At 20¢ / kWh**

**Windows**

**Solar Skylight**

**Solar Greenhouse**

**Solar Railing**

**Solar Curtainwall**

**Solar Sound Barrier**

---

**MITREX | Clady**
Mitrex Solar Cladding panels generate enough green energy to offset the carbon needed to produce them, unlike traditional materials. On average, Mitrex Solar Cladding on all elevations can offset carbon in 4.5 years and remove 557.75kgCO₂ in 30 years.