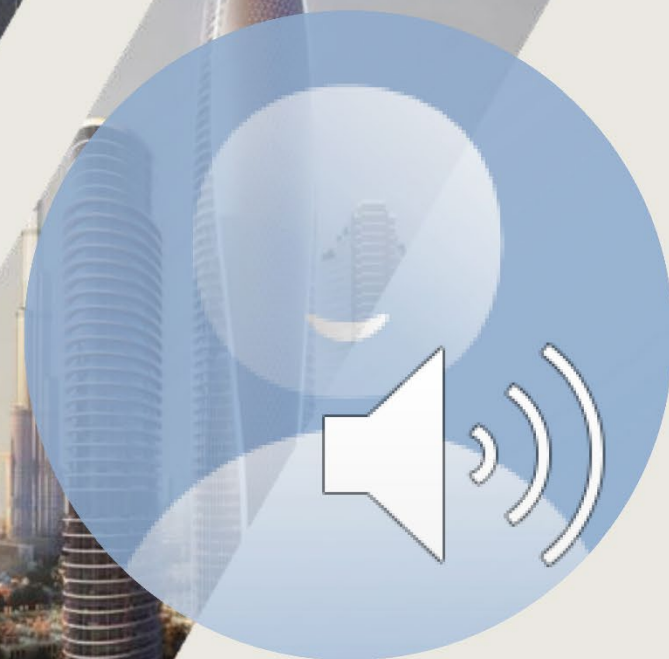


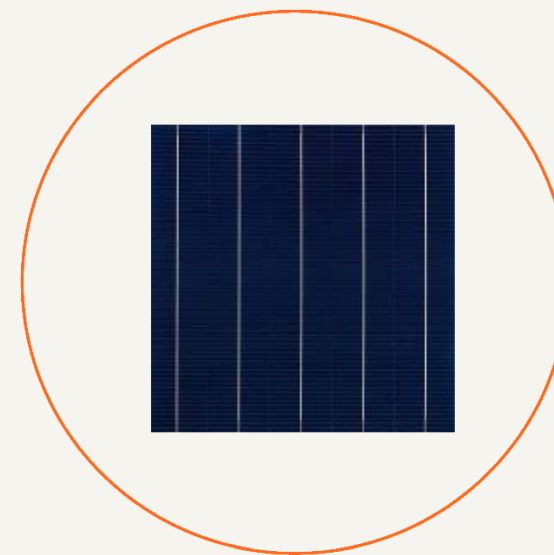


Take Advantage of Your Vertical Surfaces: Energy Generating Building Materials Presentation



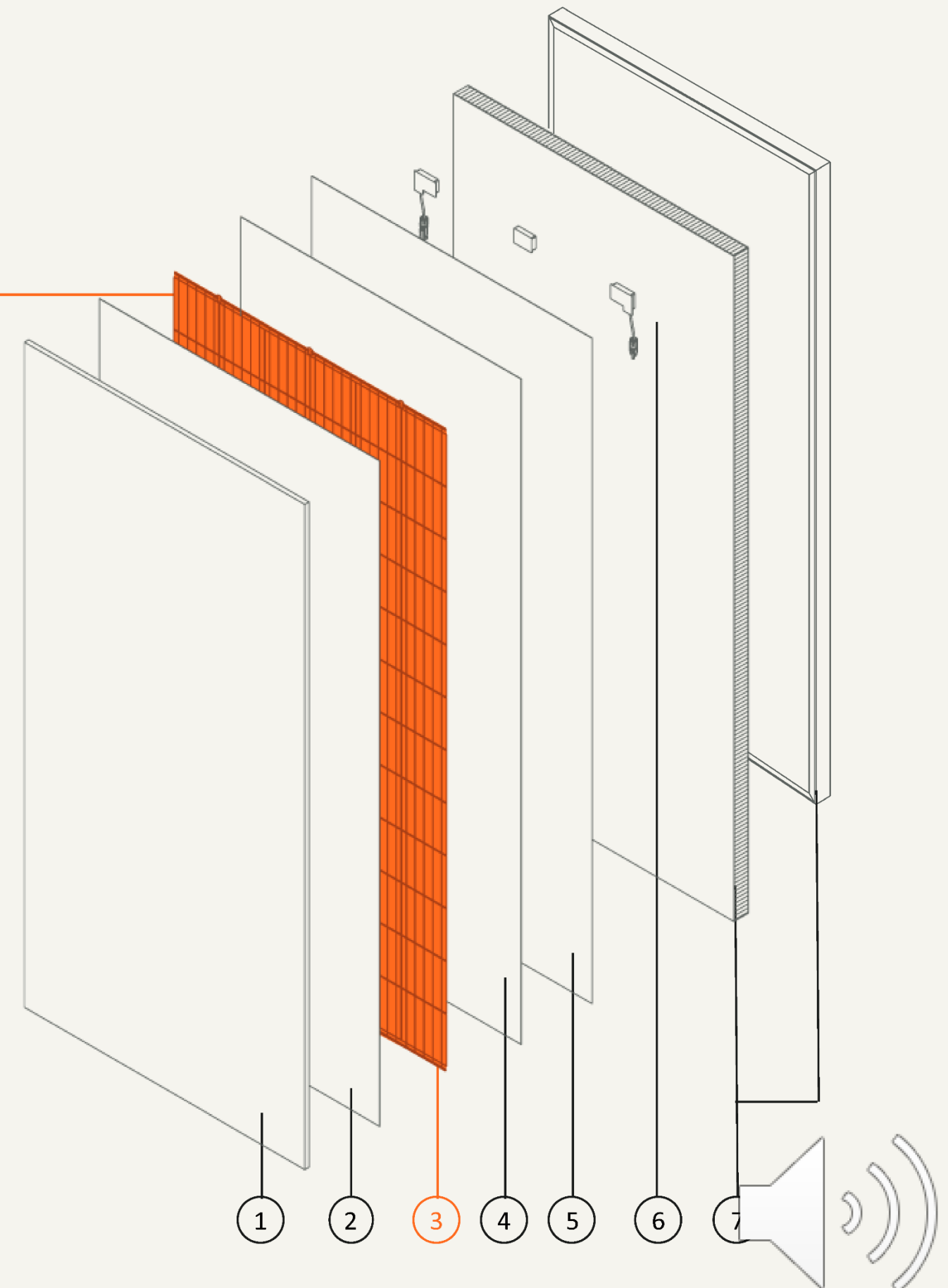
What Are Building-Integrated Photovoltaics (BIPV)?

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



⚡ 22.5% Cell Efficiency

1. Glass
2. Encapsulant
3. ⚡ Solar Cells
4. Encapsulant
5. Solar Back Sheet
6. Junction Box
7. Aluminum Honeycomb or Extruded Aluminum Profile



01 · THE CONSTRAINT

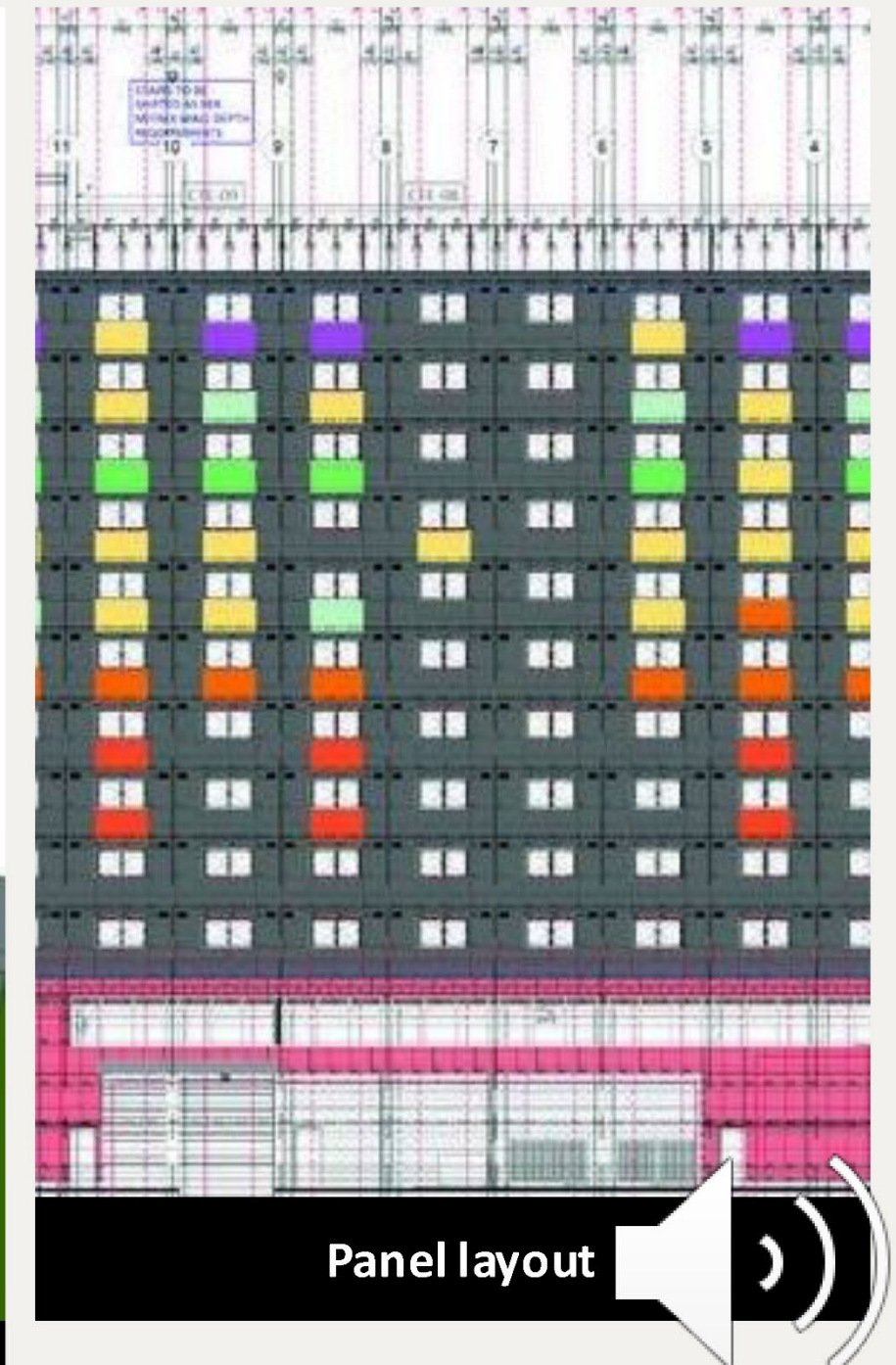
A tired building with a financing problem.

- Retrofit financing tied to a 50% carbon cut
- Plan on the table: fiber cement + 60 kW rooftop array
- Mural to be painted on afterward
- Nowhere near 50%



So the wall became the power plant.

- BIPV across all four elevations — 267 kW
- 4.5× the planned array, in cladding already budgeted
- Color optimized against yield, panel by panel
- Full energy model and costing before commitment



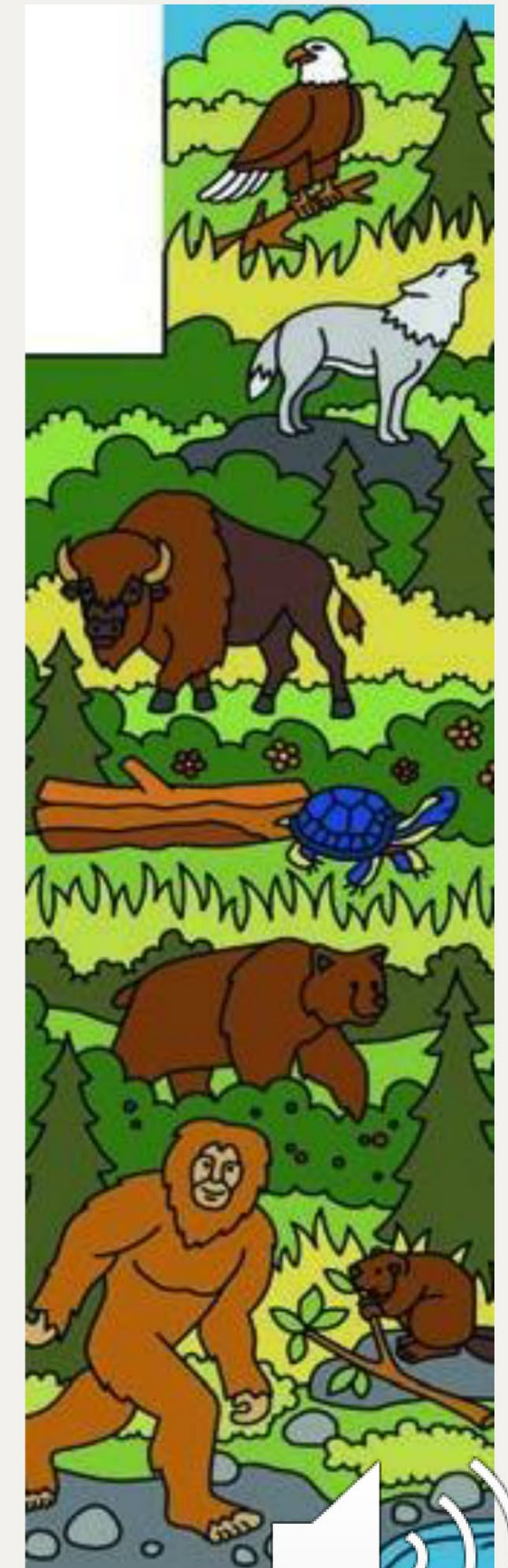
03 • THE ART

“The Land We Share”

- 26 meters tall, north elevation
- Lance Cardinal — Cree artist, Bigstone Cree Nation
- A tribute to local First Nations and Chinese communities

The north face makes the least power.

So that is exactly where the art went.



04 • IN THE FACTORY

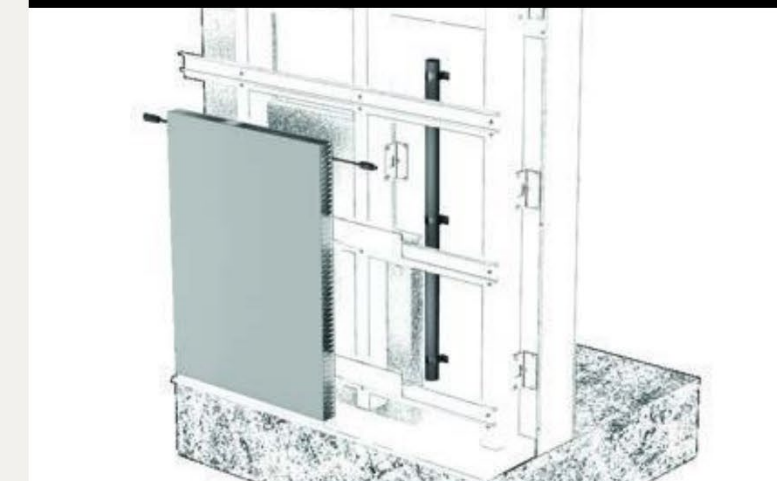
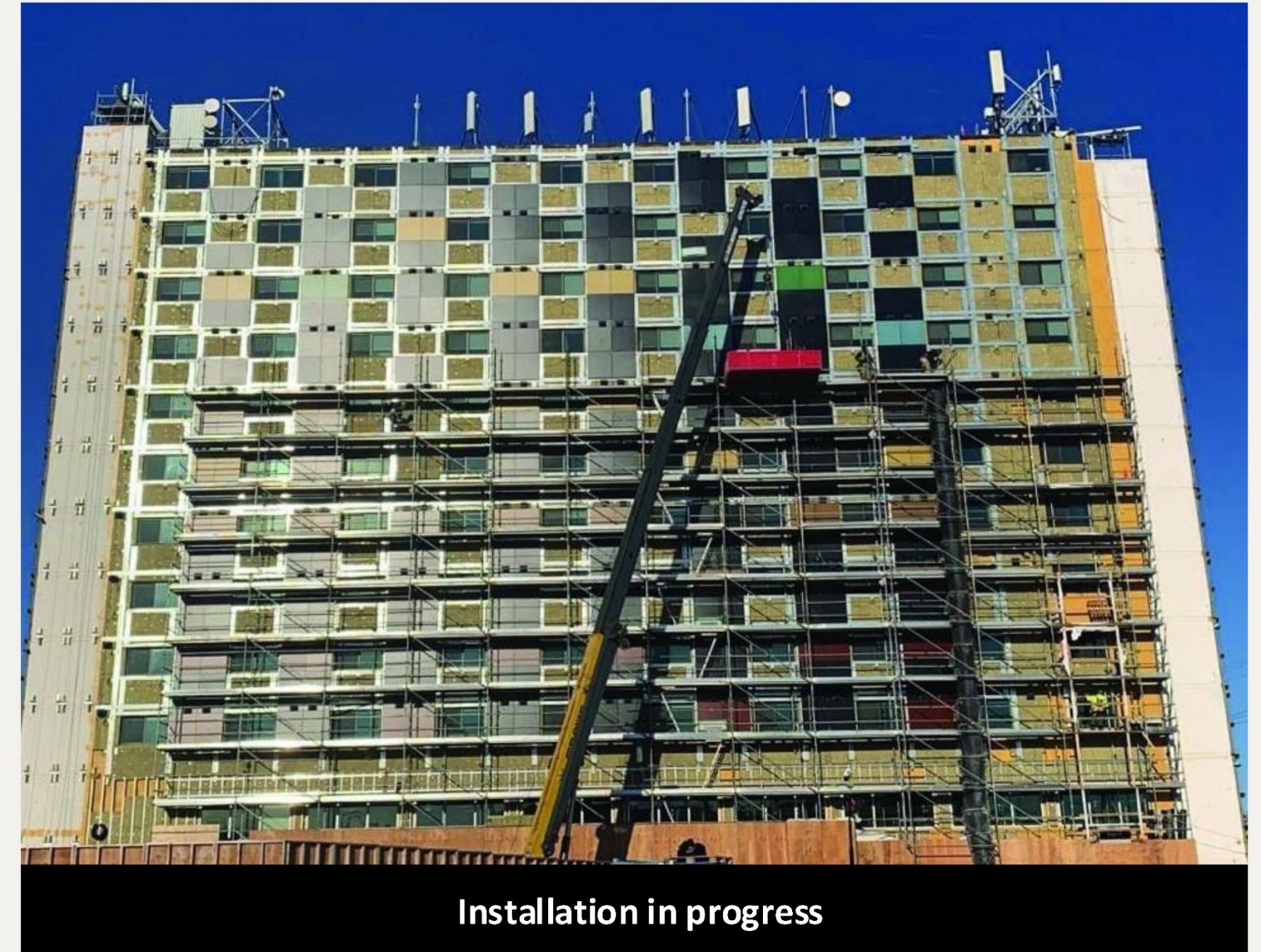
Printed, cured, and laid out to check.

- Every mural panel is a solar module
- Artwork fired into the glass — will not fade or peel
- Whole elevation laid out flat and inspected as one image
- Made in our own plant in Toronto



Installed like cladding, because it is cladding.

- Standard rainscreen — same clips, same rails
- Same facade crew. No tower crane, no second trade
- R-12 exterior insulation added behind the panels
- A deep energy retrofit. Solar was one layer of it



CladiShield rainscreen

Standard clip-and-rail.
No new trade.



**54% against a
50% target.**

system, all four elevations

a year — 23 homes

to full ROI

from year five — the revenue
of seven more rental units



The same facade, in Chicago

267 kW SYSTEM · ANNUAL GENERATION BY CITY (kWh)

Denver, CO	223,067
Los Angeles, CA	214,434
Miami, FL	191,515
Houston, TX	185,732
Chicago, IL	183,823
New York, NY	183,608
Edmonton, AB (as built)	180,000

Chicago outperforms the building's actual Edmonton location.

And beats New York, which every published BIPV pro-forma is modelled on.

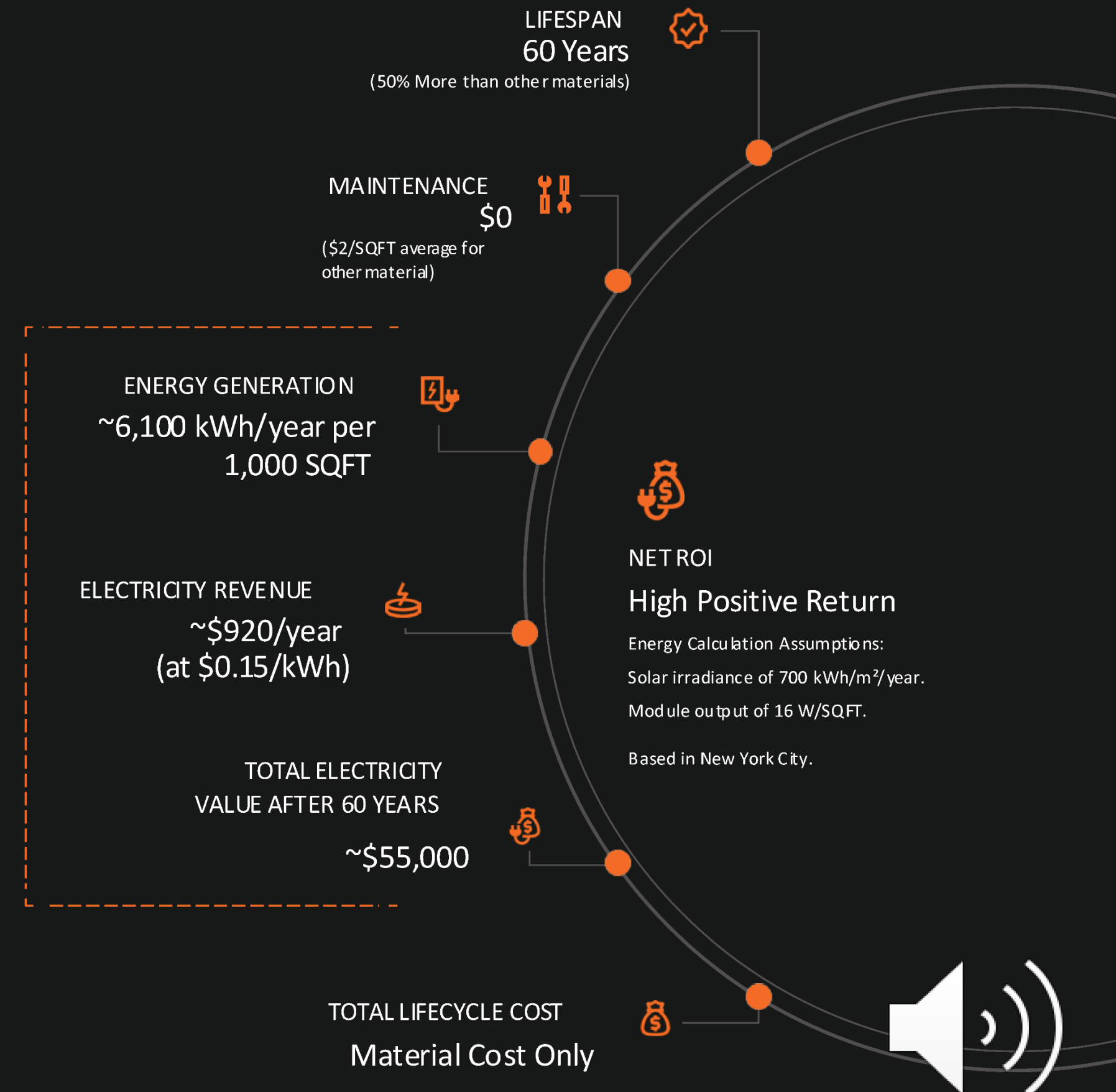
Source: Mitrex SunRise case study, per-location energy modelling



ROI & Payback Benefits

BIPV turns your façade into a long-term asset, one that not only enhances your building but actively pays you back through clean, on-site energy production.

- The facade pays for itself immediately or up to year 5 through electricity revenue from clean energy generation.
- Conventional material such as ACM or GFRC continue to cost you in maintenance, cleaning and replacement (typically after 30 years).
- BIPV facade is maintenance free and has a lifespan of 60 years.



Testing & Certifications

PV Testing



IEC
61730



IEC
61215



UL
61730



UL
61215



SA
61730



SA
61215



FSEC



NEW YORK STATE
NY-Sun



ETL
LISTED US

Building Material Testing



ASTM
C1048



ASTM
E2353



ASTM
E935



ASTM
E1886



ANSI
Z97.1



NFPA
285



EN 13501
(A2-s1,d0)



MIAMI-DADE
COUNTY



UL
S134



UL
S135



UL
S101

Environmental Product Declaration



EPD
INTERNATIONAL EPD SYSTEM



NORTH AMERICA
EPD
INTERNATIONAL EPD SYSTEM

BIPV Aluminum Honeycomb: 40.79 kg CO₂e/m²
BIPV Extruded Aluminum Profile: 30.08 kg CO₂e/m²
Porcelain: 25.70 kg CO₂e/m²
Stone: 30.58 kg CO₂e/m²
Metal Panel: 21.65 kg CO₂e/m²



Thank You!

Let’s work together to shape our cities into models of sustainability and resilience. The journey towards a greener and brighter future begins with each one of us taking proactive steps to embrace innovative solutions like BIPV and drive sustainable development. Together, we can make a difference.

Mitrex and Cladify Projects



<https://youtu.be/9uFctxXQaCo>

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