2825
Tons of In-Roof Mounting Systems Sold*

zero
Negative Market Feedback*

68666
Installations*

* Based on IRFTS - EASY ROOF EVOLUTION™ installations done internationally and counting. EASY ROOF EVOLUTION™ is a patented IRFTS product with Canadian Exclusivity Rights held by CHE Power Structures Corp. 2018
CHE develops architecturally beautiful, fully integrated, SOLAR GARAGES and IN-ROOF SOLAR KITS

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Replace electric utility payments with home equity investments
At the core of CHE’s mission is to use Building Integrated solar-PV (BIPV) for enabling mortgage financed, economically viable home ownership of an architecturally beautiful solar generation asset.

When mortgage financing residential solar you are replacing electric utility payments with investments into the equity of your home and will increase the total value of your property by up to 9% while decreasing significantly its cost of ownership.

### SCENARIO

**Purchasing a CHE Solar Garage, CHE In-Roof Solar Kit or Custom CHE Power Structure for a new property**

- **5% minimum**
- **FINANCING TYPE**
  - Mortgage and/or Home Equity Line of Credit (HELOC)
  - Purchase + Improvements Mortgage

### FINANCING TYPE

<table>
<thead>
<tr>
<th>SCENARIO</th>
<th>DOWNPAYMENT / EQUITY REQUIREMENT</th>
<th>FINANCING TYPE</th>
</tr>
</thead>
</table>
| Purchasing a CHE Solar Garage, CHE In-Roof Solar Kit or Custom CHE Power Structure for an Existing Property | **Home Equity is > 20%** | - Refinance + Improvements
- Add a mortgage segment
- Add a HELOC
- Equity Take Out
- Refinance |
| Purchasing a CHE Solar Garage, CHE In-Roof Solar Kit or Custom CHE Power Structure for an Existing Property | **Home Equity is < 20%** | - Unsecured Line of Credit (ULOC)
- Interim Financing
- Unsecured Instalment Loan |

### CHE Building Integrated solar-PV products empower ownership.

Mortgage financed solar allows home owners and home buyers to choose high powered, beautiful solar roofs and garages at little to no extra cost vs. conventional non-solar roofing or garage choices.

Whether an addition to your existing home or a part of a new-build home purchase CHE’s products empower you for owning the electrical generating capacity needed in your life.
**CHE solar garage with electric vehicle**

**SPECIFICATIONS:**

**CHE SG-24-24-10850P Solar Garage**

with a power rating of **10.85 kWp**

- **DIMENSIONS:**
  - Footprint 23.5’ X 24’ (7,163 X 7,315 mm)
  - Front height 8’-4 5/8” (2,554 mm)
  - Back height 15’ (4,572 mm)
  - Roof surface 23.86’ X 28.11’ (7,273 X 8,568 mm)
  - Roof pitch 14°

- **STRUCTURE:**
  - Concrete pad and apron (supplied by others)
  - Walls: stick-frame with 2” X 6” studs and ½” plywood
  - Roof: RL-24 trusses and 5/8” OSB

- **FINISHES:**
  - Exterior walls: PVC siding (Hardie Board optional)
  - Interior walls: uninsulated/unfinished

- **DOORS AND WINDOWS:**
  - 16’ X 8’ garage door and remote control door opener
  - 8’ X 3’-6” access door (back wall)
  - 4’ X 3” window (back wall)

- **SOLAR PV ROOFTOP ASSEMBLY:**
  - Titanium PSU underlayment
  - 35 X 1685 X 1001 mm IRFTS EASY ROOF EVOLUTION polypropylene frames and installation hardware (portrait configuration)
  - 35 X BLACK 310W solar - PV panel (or similar) portrait configuration
  - CHE perimeter cable management system

- **ELECTRICAL:**
  - All power electronics (inverters and optimizers)
  - All required wiring, surge protection, grounding, lighting arrestors and circuit breakers
  - PV power meter
  - 100A distribution panel interconnected to main home distribution panel
  - Electric vehicle power receptacle (Level 2 - 240V)
  - Garage LED lights and light switch
  - Garage power receptacles (120V)

- **INCLUDED:**
  - Building/electrical permitting
  - Processing of Alberta Solar Rebate
  - Processing of micro-generation and grid interconnection permits with electric utility

- **EXCLUDED:**
  - Concrete pad and apron
  - Power storage system (battery)
  - Insulation and interior finishes

- **WARRANTIES:**
  - Garage structure (frame): 10 years
  - PV panels (parts and labour): 10 years
  - PV panels (linear performance warranty): 25 years
  - Inverter: 12 years (option to extend to 25 years)
  - Power optimizers: 25 years
  - IRFTS PV support frames: 10 years
  - Titanium PSU Peel & Stick underlayment: Lifetime limited warranty
  - Roofing warranty: 5 years

**CHE solar garage with electric vehicle**

**SPECIFICATIONS:**

**CHE SG-20-20-7440P Solar Garage**

with a power rating of **7.44 kWp**

- **DIMENSIONS:**
  - Footprint 20’ X 20’ (6,096 X 6,096 mm)
  - Front height 8’-4 5/8” (2,554 mm)
  - Back height 15’ (4,572 mm)
  - Roof surface 20.59’ X 22.68’ (6,276 X 6,913 mm)
  - Roof pitch 17°

- **STRUCTURE:**
  - Concrete pad and apron (supplied by others)
  - Walls: stick-frame with 2” X 6” studs and ½” plywood
  - Roof: RL-24 trusses and 5/8” OSB

- **FINISHES:**
  - Exterior walls: PVC siding (Hardie Board optional)
  - Interior walls: uninsulated/unfinished

- **DOORS AND WINDOWS:**
  - 16’ X 8’ garage door and remote control door opener
  - 8’ X 3’-6” access door (back wall)
  - 4’ X 3” window (back wall)

- **SOLAR PV ROOFTOP ASSEMBLY:**
  - Titanium PSU underlayment
  - 24 X 1685 X 1001 mm IRFTS EASY ROOF EVOLUTION polypropylene frames and installation hardware (portrait configuration)
  - 24 X BLACK 310W solar - PV panel (or similar) portrait configuration
  - CHE perimeter cable management system

- **ELECTRICAL:**
  - All power electronics (inverters and optimizers)
  - All required wiring, surge protection, grounding, lighting arrestors and circuit breakers
  - PV power meter
  - 100A distribution panel interconnected to main home distribution panel
  - Electric vehicle power receptacle (Level 2 - 240V)
  - Garage LED lights and light switch
  - Garage power receptacles (120V)

- **INCLUDED:**
  - Building/electrical permitting
  - Processing of Alberta Solar Rebate
  - Processing of micro-generation and grid interconnection permits with electric utility

- **EXCLUDED:**
  - Concrete pad and apron
  - Power storage system (battery)
  - Insulation and interior finishes

- **WARRANTIES:**
  - Garage structure (frame): 10 years
  - PV panels (parts and labour): 10 years
  - PV panels (linear performance warranty): 25 years
  - Inverter: 12 years (option to extend to 25 years)
  - Power optimizers: 25 years
  - IRFTS PV support frames: 10 years
  - Titanium PSU Peel & Stick underlayment: Lifetime limited warranty
  - Roofing warranty: 5 years
CHE Power Structures' platform is easily adaptable to multiple applications. CHE’s award winning architectural talent, solar technology and deep experience in economic and carbon modeling can enable your power structure vision to become a reality.

**Example applications include:**
- Custom Garages
- Lane-Way Houses
- Retreats
- Barns
- Green Houses
- Shops

**Intelligent energy storage**
Include an advanced residential battery system as a part of your CHE Solar Garage or In-Roof Solar System and become power independent. Adding an intelligent storage system will enable your home to become virtually free of electric utility costs and CO2 as well as protect you from energy price hikes.

**Power your own mobility**
A CHE Solar Garage will power your home and provide you with solar powered Electric Vehicle (EV) charging for up to 50 km / day of range.

Economically, 1 x CHE Solar Garage + 1 x EV will save you over $100 / month compared to a life with a conventional garage and gas vehicle.

**CHE will provide all conceptual design and engineering for your custom power structure, including:**
- Architectural
- Sustainability modeling
- Structural engineering
- Electrical engineering
- Mechanical engineering

**10.85 kW 24’x 24’ Custom CHE Solar Garage with EV**

**Economically, 1 x CHE Solar Garage + 1 x EV will save you over $100 / month compared to a life with a conventional garage and gas vehicle.**
in-roof solar kits

CHE has developed a complete line of pre-designed, architecturally beautiful, building integrated IN-ROOF SOLAR KITS from 4.65 kWp – 10.85 kWp

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>MODEL</th>
<th>POWER RATING</th>
<th>PV MODULE CONFIGURATION</th>
<th>ROOF DIMENSION¹</th>
<th>ROOF PITCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-17-17-4650P(15)</td>
<td>4.65 kWp</td>
<td>Portrait</td>
<td>17.32 X 17.25</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-17-17-4650L(15)</td>
<td>4.65 kWp</td>
<td>Landscape</td>
<td>17.25 X 17.32</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-14-23-4960P(16)</td>
<td>4.96 kWp</td>
<td>Portrait</td>
<td>14.05 X 22.68</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-23-14-4960L(16)</td>
<td>4.96 kWp</td>
<td>Landscape</td>
<td>22.68 X 14.05</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-21-17-5580P(18)</td>
<td>5.58 kWp</td>
<td>Portrait</td>
<td>20.59 X 17.25</td>
<td>10-50°</td>
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<tr>
<td>In-Roof Solar PV System</td>
<td>IR-17-21-5580L(18)</td>
<td>5.58 kWp</td>
<td>Landscape</td>
<td>17.25 X 20.59</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-17-23-6200P(20)</td>
<td>6.20 kWp</td>
<td>Portrait</td>
<td>17.32 X 22.68</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-23-17-6200L(20)</td>
<td>6.20 kWp</td>
<td>Landscape</td>
<td>22.68 X 17.32</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-21-23-7440P(24)</td>
<td>7.44 kWp</td>
<td>Portrait</td>
<td>20.59 X 22.68</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-23-21-7440L(24)</td>
<td>7.44 kWp</td>
<td>Landscape</td>
<td>22.68 X 20.59</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-17-28-7750P(25)</td>
<td>7.75 kWp</td>
<td>Portrait</td>
<td>17.32 X 28.11</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-28-17-7770L(25)</td>
<td>7.75 kWp</td>
<td>Landscape</td>
<td>28.11 X 17.32</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-28-21-9300L(30)</td>
<td>9.30 kWp</td>
<td>Landscape</td>
<td>28.11 X 20.59</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-23-27-9920P(32)</td>
<td>9.92 kWp</td>
<td>Portrait</td>
<td>22.68 X 27.13</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-27-23-9920L(32)</td>
<td>9.92 kWp</td>
<td>Landscape</td>
<td>27.13 X 22.68</td>
<td>10-50°</td>
</tr>
<tr>
<td>In-Roof Solar PV System</td>
<td>IR-28-24-10850L(35)</td>
<td>10.85 kWp</td>
<td>Landscape</td>
<td>28.11 X 23.86</td>
<td>10-50°</td>
</tr>
</tbody>
</table>

CUSTOMIZED SIZES ARE AVAILABLE UPON REQUEST

¹The roof surface dimensions will vary in accordance with the selected roof pitch

• REQUIREMENTS (DELIVERED BY OTHERS):
  - Roof support surface (plywood/OSB) dimensions in accordance with the table above
  - Roof support surface rated for the CHE In-Roof Solar PV System weight: 4lb. / Ft² (191.5 Pa)
  - Roof support surface rated to comply with local code requirements for snow and wind loads

• CHE SOLAR PV ROOFTOP ASSEMBLY:
  - Titanium PSU underlayment
  - 1”X4” treated lumber strapping
  - 1685X1001 mm CHE - IRFTS EasyRoof Evolution polypropylene frames and installation hardware (portrait/landscape configuration)
  - Black 310W solar panels (or similar) portrait/landscape configuration
  - CHE integration/cable management perimeter component as required or 1-ft. band of roof shingles around the perimeter of the CHE In-Roof solar system

• ELECTRICAL:
  - Power Electronics (inverter, power optimizers) and all required wiring, surge protection, grounding, lightning arrestors and circuit breakers
  - Digital PV power meter
  - Interconnection with main home electrical panel

• INCLUDED:
  - Electrical permitting
  - Processing of Alberta Solar Rebate
  - Processing of Micro-generation and grid interconnection permits with electric utility

• EXCLUDED:
  - Power storage system (battery)

• WARRANTIES:
  - PV panels (parts and labour): 10 years
  - PV panels (linear performance warranty): 25 years
  - Inverter: 12 years (extendable to 25 years)
  - Power optimizers: 25 years
  - IRFTS PV support frames: 10 years
  - Titanium PSU Peel & Stick underlayment: Lifetime limited warranty
  - Roofing warranty: 5 years

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  - Roofing warranty: 5 years

CHE pre-designed IN-ROOF SOLAR KITS will save up to 50% on installation costs vs. conventional, custom designed, retrofitted systems
CHE Power Structures Corp. is the exclusive Canadian partner of L’Institut de Recherche Fondamentale en Technologies Solaires (IRFTS), Europe’s leading Building Integrated Solar-PV (BIPV) provider. IRFTS has developed ingenious solar-PV integration technology which has been deployed in over 68,666 projects in 15 countries.

IRFTS EASY ROOF EVOLUTION integration technology elegantly and seamlessly transforms ‘off-the-shelf’ solar-PV modules into residential rooftiles providing the highest possible power density at the lowest possible cost.

All CHE SOLAR GARAGES and CHE IN-ROOF SOLAR KITS are empowered by IRFTS EASY ROOF EVOLUTION integration technology for offering Canada Building Integrated solar-PV products that can be installed quickly and easily by basic trades for low cost, mortgage financeable, architecturally beautiful residential solar.
durability

A highly resistant material

-50 °C - 20 °C + 80 °C + 132 °C

Temperature variation of a roof

Operative range of the material

Optimised ventilation

EASY ROOF EVOLUTION is fully ventilated to maximise the efficiency of the solar-PV field

reliability

Reliability

Rain water management

Walls and water channels provide perfect water drainage for highest levels of rain water

Unequalled interlocking and overlapping frameworks provide 100% watertightness

Ease of maintenance

Each solar-PV module is interchangeable throughout the life of the installation without upsetting or removing the strong aluminium brackets
Alberta incentives + rebates

<table>
<thead>
<tr>
<th>INCENTIVE PROGRAM</th>
<th>IMPORTANT DETAILS OF PROGRAM</th>
<th>INCENTIVE AMOUNT (APPROXIMATE)</th>
<th>PROGRAM ADMINISTRATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency Alberta Residential Solar Rebate</td>
<td>- System Complete and interconnected within 6 months of Application Part 1</td>
<td>Up to $10,000</td>
<td>CHE or Applicant</td>
</tr>
<tr>
<td></td>
<td>- Submit Part 1 to get into funding queue.</td>
<td>- Dependent on Load Requirements ($0.75/Watt)</td>
<td></td>
</tr>
<tr>
<td>NRCan Mortgage Insurance Refund - CMHC / Genworth / Canada Guaranty</td>
<td>- Available only when a mortgage insurance (credit default) premium is added to mortgage.</td>
<td>Upto 25% of the total mortgage insurance premium.</td>
<td>CHE, Applicant or qualified mortgage professional.</td>
</tr>
<tr>
<td></td>
<td>- Available to all residential property types that meet the Energy Efficiency Guidelines.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Must be completed within 24 months of mortgage advance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAT SMART (City of Medicine Hat)</td>
<td>- Must have electricity Utility Account with the City of Medicine Hat.</td>
<td>$0.75/Watt up to $5,000.</td>
<td>CHE or Applicant</td>
</tr>
<tr>
<td></td>
<td>- MicroGeneration Application.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Submit Part 1 to get into funding queue.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HOME PURCHASE EXAMPLE

<table>
<thead>
<tr>
<th>Home Purchase Price + CHE Garage:</th>
<th>$425,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Down Payment (5%):</td>
<td>$21,250</td>
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<tr>
<td>Basic Loan Amount:</td>
<td>$403,750</td>
</tr>
<tr>
<td>Mortgage Insurance Premium (4%):</td>
<td>$16,150</td>
</tr>
<tr>
<td>Total Loan Amount:</td>
<td>$419,900</td>
</tr>
</tbody>
</table>

Energy Efficiency Alberta Rebate (Alberta): $10,000 (max)
Mortgage Insurance Refund (Canada): $16,150 x 25% = $4,037.50
Total Refunds and Rebates (Alberta) = $14,037.50
*available as cash rebate.

Total Refunds and Rebates (Medicine Hat, AB) = $19,037.50
*available as cash rebate.

solarize your life