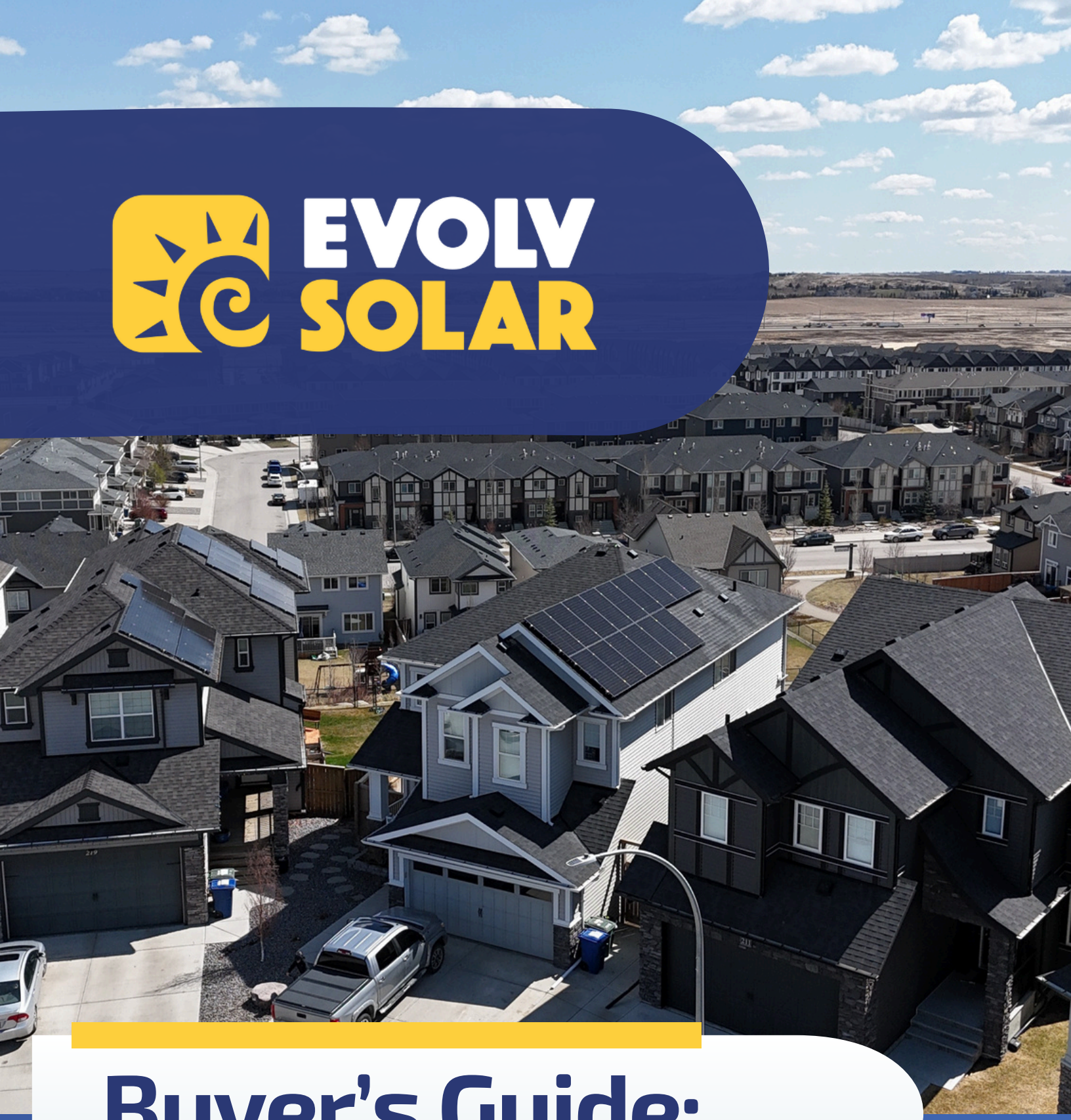
EVOLV SOLAR



Buyer's Guide:

to Solar Energy Systems

Buyer's Guide:

1 System Size Explanation

Making All Quotes Equal

When comparing solar quotes, it's crucial to ensure that all proposals are based on the same criteria. A system's size, measured in kilowatts (kW), is calculated by multiplying the number of solar panels quoted with the wattage per panel.

Key Considerations When Evaluating Quotes:

- **Tool System Capacity (kW) –** Ensure all quotes reflect a similar system size (ex, 6.75 kW vs. 7.10 kW).
- **Expected Annual Production (kWh) –** This accounts for real-world conditions and system efficiency.
- **Component Specifications –** Different panel brands, sizes, and inverter technologies (Micro vs. String inverters) affect cost and overall energy output.

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2 Irradiance & Shading

Audits, Losses & Irradiance Map/Statistics

Solar energy production depends on available sunlight.
A professional solar installer should use industry-leading design software to account for losses due to shading, panel degradation, soiling, snow accumulation, and historical weather data.

Key Factors to Consider:

- **Shading Impact –** Understand the impact of trees, buildings, and roof obstructions on system efficiency. **Verify that your installer has thoroughly assessed shading and accounted for potential losses in their quote.** Many companies overlook this critical step.
- **Panel Orientation –** South-facing panels with a 30-40° tilt are optimal, but East/West orientations may require additional panels to achieve similar results, due to less efficiency. (Example: 20 south-facing panels vs. 23 East/West panels to reach 100% offset.)
- **Irradiance Levels –** Alberta has an average irradiance of **1,250 kWh/kW**, making it one of the most favourable locations in Canada for solar energy.

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3 System Design & Utility Restrictions

System sizing is based on electricity usage, available roof space, and utility restrictions. Utilities typically limit system size to **110% of past annual consumption** to ensure alignment with historical energy needs.

How We Determine System Size:

- Review the past **12 months** of electricity bills.
- Use **solar modeling software** to predict energy output based on site conditions.
- Ensure compliance with **utility interconnection limits** and local regulations.

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4 Choosing the Right Solar Contractor

Selecting a reputable installer is critical to ensuring a high-quality installation and long-term system performance.

Questions to Ask Your Contractor:

1. **Do you subcontract any part of the solar installation?** (Some insurance policies may not cover subcontracted work.)
2. **How long has your company been in business?**
3. **How many solar installations have you completed?**
4. **How diverse is your company's expertise? Do you service sectors beyond residential, such as commercial, agricultural or industrial projects?**
5. **Are you locally based to provide long-term support?**

Verifying these details helps ensure that your installer is experienced, reliable, and capable of supporting your system for years to come.