

# **Visible Energy**

## Marketing Plan

# Table of Contents

- Company and Product Analysis
- Market Definition, Potential ad Demand
  - Market Size and Growth
- Technology Adoption Lifecycle Curve
- Competitor Analysis
- Customer Analysis
  - Residential Market
  - Commercial Market
  - Customer Interviews
    - Interview One
    - Interview Two
    - Interview Three
- SWOT Analysis
- Marketing Objectives and Goals
- Marketing Strategy
- Target Market and Positioning
  - Residential Persona
  - Commercial Persona
- Product and Brand Management
- Promotion
  - Residential Target Market
  - Commercial Target Market
- Distribution

## Company and Product Analysis

The subject of this marketing research and strategy document is Visible Energy, an established residential and commercial solar window provider in Phoenix, Arizona.

Solar windows convert sunlight into renewable energy through photovoltaic glazing that contains solar cells. Solar windows are transparent which means they're aesthetically acceptable to homeowners, architects and designers.

Light can still pass through solar windows, resulting in a functional look and application with sustainable energy generation. Tiny wires transmit the energy through to the building's main wiring and all the way to the relevant inverter / battery.

## Market Definition, Potential and Demand

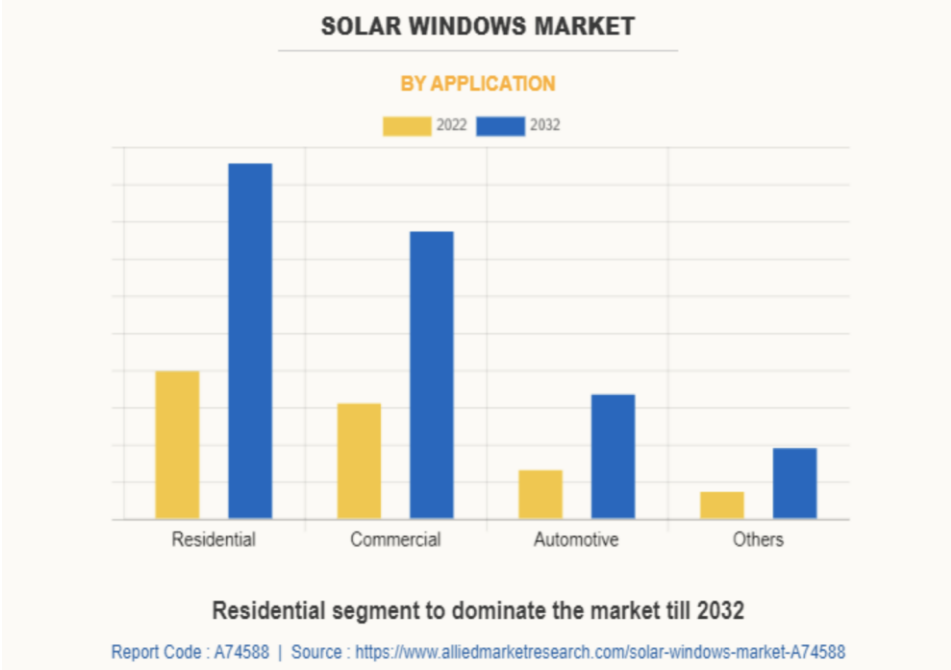
### **Market Size and Growth**

The global solar windows market size was valued at \$9.0 million in 2022, and the solar windows industry is projected to reach \$22.5 million by 2032, growing at a CAGR of 9.6% from 2023 to 2032.

The solar windows market has experienced a growth surge driven by the demand for renewable energy, technological advances in transparent solar cells, and government policies and incentives.

When compared to conventional solar panels, transparent solar cells are more expensive as the production costs are higher. Producing transparent solar cells requires specialized manufacturing processes and materials, such as transparent conductive oxides and transparent electrodes. Higher production costs do translate to higher retail costs which could prevent transparent solar cells from becoming widely adopted, especially in markets where the price is a major deciding factor.

While a higher purchase price could impede the growth of solar windows in the short term, long term the cost of transparent solar cells are expected to be more aligned with the cost of conventional solar panels as production costs reduce and technology evolves.



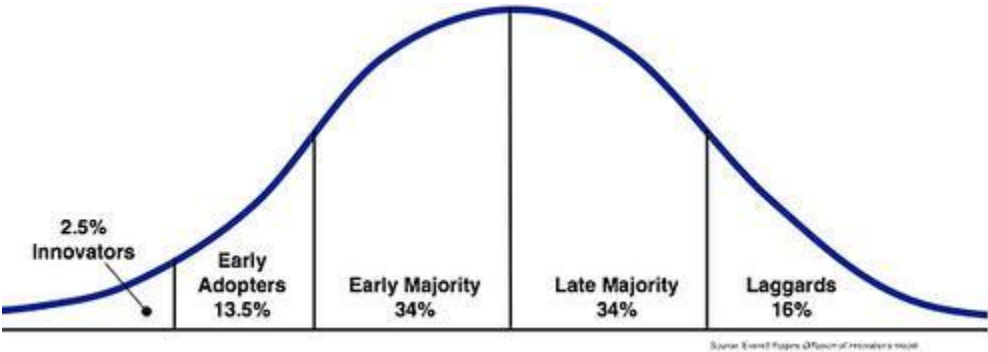
# Competitive Strength

Key players in the solar windows industry include PHYSEE, Heliatek, Brite Solar and Ubiquitous Energy.

While there are a number of competitors in the space, none have established themselves as market leader and because mass adoption hasn't been achieved, there is still room for a strong brand who delivers a seamless to its buyers.

## Technology Adoption Lifecycle Curve

We're still very early in the adoption of solar windows. In fact, we're still relatively early in the adoption of solar panels and solar electricity generally. The market size, the keyword search volume and sentiment from customers in interviews, all suggest that solar windows aren't a common consideration in homes or buildings yet. We are for all intents and purposes, in the innovation phase of the product and adoption.



# Competitor Analysis

<p>Threat of New Entrants</p> <ul style="list-style-type: none"> <li>- High R&amp;D expenses for novel solar window solutions.</li> <li>- Non-existent customer loyalty. Customers do not have a favorite solar window brand.</li> <li>- Once installed, it is difficult for customers to switch.</li> <li>- Customers could use multiple brands on one building. (i.e. test each vendor)</li> </ul>	<p style="text-align: center;"><b>Threat of New Entrants</b></p>	<p>Competitive Rivalry</p> <ul style="list-style-type: none"> <li>- High competition. Players are racing to become frontrunner.</li> <li>- Large advertising expense to educate masses means established players need to be well-funded.</li> <li>- Low brand loyalty (i.e. no Tesla in the space yet).</li> </ul>
<p style="text-align: center;"><b>Bargaining Power of</b></p>	<p style="text-align: center;"><b>Competitive</b></p>	<p style="text-align: center;"><b>Bargaining Power of</b></p>

Suppliers	Rivalry	Buyers
<p>Supplier Power</p> <ul style="list-style-type: none"> <li>- Each product is novel with similar but different technology.</li> </ul> <p>Threat of Substitution</p> <ul style="list-style-type: none"> <li>- There are multiple substitute services in the market and some of them are cheaper.</li> </ul>	<p><b>Threat of Substitutes</b></p>	<p>Buyer Power</p> <ul style="list-style-type: none"> <li>- Buyers are not price sensitive. It's expensive already and consumers are choosing sustainability and lower long term energy costs (i.e. an investment).</li> <li>- Buyers can compare different alternatives easily, but jargon exists.</li> </ul>

## Customer Analysis

The market size for both residential and commercial consumers is enormous. Most houses and most commercial buildings can benefit from solar window technology to reduce their energy costs and contribute to a more sustainable future.

However, capturing the available market isn't simple.. In addition to competing against a number of competitors, there is still so much educational work to be done to prepare the target audience for a purchase. We've tentatively suggested 5% and 3% of the markets are in the buying journey.

## Residential Market

TAM: Total residential buildings in the Phoenix Arizona area.

- 2.2 million x \$5,000 (annual spend per customer) = \$11,000,000,000

SAM: Total residential buildings that are owner-occupied (65%) in the Phoenix, Arizona area.

- 1.32 million x \$5000 = \$6,600,000,000

SOM: (Assuming we can capture 5% of the market).

- \$6,600,000,000 x 5% = \$330m



## Commercial Market

TAM: Total commercial buildings in the Phoenix Arizona area.

- $1,035,315 \times \$50,000$  (annual spend per commercial customer) = \$51b

SAM: Total commercial buildings that fit the profile for solar windows in the Phoenix, Arizona area (30%).

- $310,594 \times \$50,000 = \$15b$

SOM: (Assuming we can capture 3% of the market).

- $\$6,600,000,000 \times 3\% = \$465m$

## Customer Interviews

### Interview One

Interviewer: Thank you for taking the time to speak with us today. We're interested in learning more about your experience as a homeowner and your thoughts on solar window products. To start, can you tell us a little about your current energy costs and any efforts you've made to reduce them?

Homeowner: Sure, happy to help. Well, our energy bills have been steadily increasing, especially during the hot summer months. We've tried to reduce our

energy consumption by sealing gaps and adding insulation, but it only helped so much.

Interviewer: That's understandable. Energy costs can be a concern for many homeowners. Have you considered renewable energy options like solar panels or solar window products to help mitigate these costs?

Homeowner: We've looked into solar panels, but the aesthetics of those big panels on our roof didn't quite fit with the look of our home. Solar windows are intriguing, though, as they might be a more subtle option.

Interviewer: Great, aesthetics is an important factor for many homeowners. How important is the overall look and design of your home to you? Do you think solar window products could be integrated seamlessly into your home's design?

Homeowner: The look of our home is very important to us. We've put a lot of effort into its design and landscaping. It would be ideal if any new technology, like solar windows, could blend in without being too noticeable. We wouldn't want our home to look like a science experiment.

Interviewer: I completely understand your concern about aesthetics. Now, moving to sustainability, how important is environmental sustainability to you and your family?

Homeowner: It's becoming increasingly important to us. We want to do our part to reduce our carbon footprint and live more sustainably. So, finding eco-friendly solutions for our energy needs is definitely a priority.

Interviewer: That's wonderful to hear. Solar windows are known for their sustainability benefits. Have you ever considered how they might contribute to your sustainability goals?

Homeowner: To be honest, we didn't know much about solar windows until now. We knew about solar panels, but the idea of integrating solar energy into our windows is intriguing. It could be a great way to contribute to sustainability without compromising the aesthetics of our home.

Interviewer: Thank you for sharing your thoughts. One last question: Are there any specific concerns or questions you have regarding solar window products or anything else you'd like to know?

Homeowner: I would like to learn more about the cost, maintenance, and the efficiency of solar window products. Also, are there any incentives or rebates available for installing them? That would be a key factor in our decision.

## Interview Two

Interviewer: Thank you for taking the time to speak with us today. We're interested in learning more about your experience as a homeowner and your thoughts on

solar window products. To start, can you tell us a little about your current energy costs and any efforts you've made to reduce them?

Homeowner: Well, our energy costs are definitely on the rise, and we've tried some basic energy-saving measures, but nothing substantial. I'm not really convinced that any of these high-tech solutions would be worth the investment.

Interviewer: I understand your skepticism. Have you ever considered renewable energy options like solar panels or solar window products to help reduce your energy bills?

Homeowner: Solar panels? Yeah, I've heard about them, but I'm not sold on the idea of having these big, clunky things on my roof. And honestly, I've never even heard of solar windows.

Interviewer: I see. Aesthetics can be a concern for many homeowners. How important is the overall look and design of your home to you? Do you think solar window products could be integrated seamlessly into your home's design?

Homeowner: The appearance of my home is crucial to me. I've put a lot of effort into making it look just right. I doubt that any solar technology would fit in with the style I've created. It's probably going to be an eyesore.

Interviewer: That's a valid concern. Now, how do you feel about environmental sustainability? Is it an important factor for you and your family?

Homeowner: I'm not against sustainability, but it's not a top priority. I've got other things to worry about, and I'm not convinced that these solar things are the answer.

Interviewer: I understand your hesitation. Have you ever considered how solar window products might align with sustainability goals, even if they're not your top priority?

Homeowner: To be honest, I haven't really given it much thought. It sounds nice in theory, but I don't know if it's worth the trouble, and I'm sure it's going to be expensive.

Interviewer: Thank you for sharing your honest thoughts. Is there anything specific that concerns you or any questions you have regarding solar window products or anything else you'd like to know?

Homeowner: I guess I'm concerned about the cost, the maintenance, and whether these solar windows are really efficient. Plus, are there any incentives or rebates? But honestly, I doubt it's worth the hassle.

### Interview Three

Interviewer: Thank you for taking the time to speak with us today. We're interested in learning more about your experience as a commercial property owner who manages multiple office buildings. To begin, can you tell us about your current energy costs and any efforts you've made to reduce them in your properties?

Commercial Property Owner: Certainly. Energy costs are a significant concern for us, given the number of office buildings we manage. We've already invested in various energy-efficient technologies, such as LED lighting and HVAC upgrades, to minimize energy expenses.

Interviewer: That's great to hear that you're already taking steps to reduce energy costs. Have you considered renewable energy solutions like solar panels or solar window products for any of your office buildings?

Commercial Property Owner: We've explored solar panels for some of our larger properties, but the maintenance and visual impact have been deterrents. Solar window products, on the other hand, are new to me, and I'm not sure how they'd fit in our commercial properties.

Interviewer: Aesthetics and maintenance can indeed be crucial considerations for commercial properties. How important is the overall appearance and functionality of your office buildings, and do you think solar window products could seamlessly integrate into your buildings' designs?

Commercial Property Owner: The look and functionality of our properties are paramount, especially in the competitive world of commercial real estate. We would need any new technology to blend in seamlessly with the existing design. If solar window products can provide both aesthetics and energy efficiency, it's something we might consider.

Interviewer: Thank you for sharing your perspective. Sustainability is increasingly important in the commercial real estate sector. How does sustainability factor into

your property management strategy, and have you considered how solar window products align with sustainability goals?

Commercial Property Owner: Sustainability is a growing concern, and it's something we're looking to incorporate into our properties. If solar window products can help us reduce our carbon footprint and contribute to sustainability without disrupting our operations, it could be a selling point for potential tenants.

Interviewer: That's a positive outlook. Is there anything specific you would like to know or any concerns you have regarding solar window products, especially when considering them for commercial office buildings?

Commercial Property Owner: I'm interested in understanding the return on investment, any tax incentives, and how these products would affect our tenants. Additionally, I'd like to know if there are any successful case studies or real-world examples of similar commercial properties using solar window products.

## SWOT Analysis

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"><li>- innovative product that is on the right side of renewable energy history.</li></ul>	<ul style="list-style-type: none"><li>- Disconnect between consumers values and purchasing habits (i.e. say they support sustainability but don't act on it).</li></ul>

<ul style="list-style-type: none"> <li>- Use case is in the majority of buildings worldwide.</li> <li>- Easy application without disrupting the aesthetics of a building.</li> </ul>	<ul style="list-style-type: none"> <li>- Distributed installation market with independent contractors and installers.</li> </ul>
<p><b>Opportunities</b></p>	<p><b>Threats</b></p>
<ul style="list-style-type: none"> <li>- Partner with governments and sustainability funds to increase awareness and adoption.</li> <li>- Test case buildings could provide quantifiable benefits that help our marketing efforts (e.g. this building saved / generated etc.)</li> </ul>	<ul style="list-style-type: none"> <li>- Government incentives (i.e. grants) are removed from solar products and installations.</li> <li>- Other renewable energy sources are found and popularized or their adoption incentivised.</li> <li>- New windows or solar technology could disrupt the market.</li> </ul>



## Marketing Objectives and Goals

It's important that we set goals for each stage of the funnel with clear funnel conversion metrics. If we do that, we can assess the quality of our marketing efforts (reach), the quality of our offers (leads) and the quality of our sales execution (sales).

We've broken down our goals as follows:

1. Reach Goal: Reach 150,000 potential customers through digital ads and social media in the first quarter.
2. Website Visits: Attract 50,000 website visitors in the first quarter (CTR = 30%)
3. Marketing Goal: Generate 3,000 leads in the first quarter (6%)
4. Sales Goal: Achieve 700 solar window unit sales in the first quarter (25% conversion rate)

## Marketing Strategy

Product adoption is paramount to the success of Visible Energy, therefore our marketing strategy needs to address each stage of the buyer's journey. For example:

1. Awareness: Our target audience needs to be solution-aware (i.e. educated about the benefits of glass solar windows) before they'll become product-aware (i.e. know that Visible Energy is a leading provider in the industry).

Therefore, we'll focus a lot of our energy on education through content marketing at the top of the funnel.

2. Consideration: Once customers become aware of the cost-saving benefits of solar, we need to get them to consider solar windows over solar panels. At the consideration phase the customer is sufficiently educated and actively considering the best option for them (be it a competitive substitute or an adjacent product substitute) therefore our content needs to address common objections, show the quantifiable savings of the solution and
3. Decision: At the decision stage of the buyer's journey, our target audience is ready to make a decision and they're just deciding which vendor to choose. Therefore, we need lots of social proof, testimonial and case study content that helps convince the prospects that Visible Energy is the best solution.

## Target Market and Positioning

We're targeting both residential homeowners and commercial property owners with our marketing strategy. The dual focus means we have two distinct personas with different buying habits, motivations, pain points and more.

# Residential Persona

Name	Demographics	Pain Points
Sarah Green	Age: 45-60 Gender: Female Marital Status: Married Occupation: Homemaker or part-time employment Education: College degree  Location: Suburban or rural areas in the United States Income: Middle to upper-middle class Family: Likely to have children, possibly empty nesters	<ul style="list-style-type: none"><li>- High Energy Bills: Concerned about rising electricity costs and seeking ways to reduce them.</li> <li>- Environmental Consciousness: Interested in sustainable living and reducing their carbon footprint.</li> <li>- Home Improvement: Enjoys enhancing the aesthetics and value of their home.</li></ul>

		<ul style="list-style-type: none"> <li>- Privacy and Comfort: Wants to maintain a comfortable and private living space.</li> </ul>
<b>Motivations</b>	<b>Buying Behaviour</b>	<b>How We Market to Sarah</b>
<ul style="list-style-type: none"> <li>- Energy Savings: Looking to reduce energy bills and become more self-sufficient by harnessing renewable energy.</li> <li>- Sustainability: Wants to make eco-friendly choices and contribute to a greener environment.</li> </ul>	<ul style="list-style-type: none"> <li>- Online Research: Sarah is likely to research online, read reviews, and visit the company's website.</li> <li>- Community Events: Participating in local sustainability and home improvement events or workshops.</li> <li>- Word-of-Mouth: Recommendations from friends or neighbors who have already installed solar windows.</li> </ul>	<ul style="list-style-type: none"> <li>- Energy Savings: Highlight how solar windows can significantly reduce energy bills and increase energy efficiency.</li> <li>- Eco-Friendly: Emphasize the environmental benefits of reducing carbon emissions and contributing to sustainable living.</li> </ul>

<ul style="list-style-type: none"> <li>- Home Enhancement: Values home aesthetics and is willing to invest in improvements.</li> <li>- Property Value: Interested in increasing the resale value of their home.</li> </ul>	<ul style="list-style-type: none"> <li>- Social Media: Engaging through platforms like Facebook, where she can find eco-conscious communities.</li> </ul>	<ul style="list-style-type: none"> <li>- Home Enhancement: Showcase how solar windows can enhance the aesthetics and value of her home.</li> <li>- Customized Solutions: Offer personalized consultations and solutions tailored to her specific needs.</li> </ul>
--	---	--

**Commercial Persona**

Name	Demographics	Pain Points
John Anderson	<ul style="list-style-type: none"> <li>- Age: 40-60</li> <li>- Gender: Male</li> </ul>	<ul style="list-style-type: none"> <li>- Operational Costs: Concerned with minimizing</li> </ul>

	<ul style="list-style-type: none"> <li>- Marital Status: Varies (could be single, married, or divorced)</li> <li>- Occupation: Commercial Property Landlord</li> <li>- Education: Typically a college degree or higher, especially in business or real estate-related fields</li> <li>- Location: Urban or suburban areas with a focus on commercial properties</li> <li>- Income: Varied, typically high due to property ownership</li> <li>- Property Portfolio: Manages multiple commercial properties</li> </ul>	<ul style="list-style-type: none"> <li>operational expenses to increase profit margins.</li> <li>- Tenant Retention: Focused on retaining and attracting long-term, reliable tenants.</li> <li>- Sustainability: Increasingly interested in sustainable and energy-efficient solutions to reduce utility costs.</li> <li>- Property Value: Wants to maintain or increase the value of their commercial properties.</li> </ul>
<b>Motivations</b>	<b>Buying Behaviour</b>	<b>How We Market to</b>

		<b>Sarah</b>
<ul style="list-style-type: none"> <li>- Profit Maximization: Seeking to maximize the profitability of their commercial property investments.</li> <li>- Efficient Property Management: Aims to streamline property management processes for higher efficiency.</li> <li>- Sustainability: Interested in adopting green</li> </ul>	<ul style="list-style-type: none"> <li>- Industry Conferences: John may attend real estate and property management conferences and trade shows.</li> <li>- Professional Networks: Engaging through property management associations, LinkedIn, and industry-specific online forums.</li> <li>- Consultations: He appreciates expert consultations and personalized solutions.</li> <li>- Newsletters and Reports: Receiving industry news, market reports, and case studies via email or physical mail.</li> </ul>	<ul style="list-style-type: none"> <li>- Energy Savings: Highlight how solar windows can significantly reduce utility costs and increase energy efficiency for commercial properties.</li> <li>- Tenant Attraction: Emphasize the appeal of eco-friendly and energy-efficient features to attract and retain environmentally conscious tenants.</li> <li>- ROI and Profitability: Showcase the potential return on</li> </ul>

<p>technologies to reduce energy costs and attract environmentally conscious tenants.</p> <ul style="list-style-type: none"> <li>- Market Expansion: May be looking to expand their property portfolio.</li> </ul>		<p>investment and long-term cost savings for commercial property owners.</p> <ul style="list-style-type: none"> <li>- Custom Solutions: Offer tailored solutions that address the unique needs and layout of each commercial property.</li> </ul>
--	--	---

## Product and Brand Management

Brand Positioning: Visible Energy positions itself as a forward-thinking, eco-conscious brand that seamlessly integrates solar technology into everyday life. Our solar windows not only harness the power of the sun but also promote energy efficiency, reducing our carbon footprint one window at a time.

Unique Selling Proposition (USP): Visible Energy's solar windows offer a unique blend of aesthetics, energy efficiency, and sustainable living. Our USP includes:



- Cutting-edge solar technology that seamlessly integrates into windows.
- High energy efficiency and reduced utility costs.
- Custom designs unlike anything else in the market.
- Technology first peripherals including remote control access and companion app
- Aesthetically pleasing, transparent design that complements any architectural style.

## Promotion

### **Residential Target Market**

Our integrated marketing strategy needs to encompass all of our owned marketing channels and some earned marketing channels. We see the below promotional steps as our most important:

1. Educational Content: Create blog posts, videos, and infographics that explain the benefits of solar windows, how they work, and their impact on energy savings and environmental sustainability.
2. Online Advertising: Run targeted online ads on social media platforms like Facebook and Instagram, as well as through Google Ads, to reach homeowners in specific geographic areas with ads tailored to their interests and concerns.

3. Content Marketing: Develop case studies or customer success stories showcasing how solar windows have benefited homeowners. Highlight the savings and improvements in home comfort and aesthetics.
4. Local Workshops and Events: Host or participate in local sustainability events, home improvement fairs, or workshops to interact with potential customers and demonstrate the product's benefits.
5. Social Media Engagement: Regularly engage with eco-conscious and home improvement communities on social media platforms to build brand awareness and share valuable information.
6. Referral Programs: Establish a referral program where existing customers can refer friends and neighbors in exchange for incentives or discounts.
7. PR: Showcasing the technology to local media agencies, publications and influencers to attain broad awareness and backlinks.

## **Commercial Target Market**

We need to pivot slightly for the commercial market because commercial owners are unlikely to be looking for our product (i.e. there's no demand for solar windows). Our tactics need to be more push marketing (going to the audience) through outreach, events and relationships.

Here's how we'll target the commercial segment:

1. B2B Networking: Attend real estate and property management conferences and trade shows to network with potential clients and industry professionals.
2. Industry Publications: Advertise in or contribute articles to real estate industry publications, emphasizing the ROI and benefits of solar windows for commercial properties.
3. LinkedIn and Professional Networks: Create a strong online presence on LinkedIn and other professional platforms, sharing case studies and success stories to attract potential clients.
4. Energy Audits: Offer free energy audits to assess potential energy savings for commercial properties. Use these audits as a way to introduce your solar window solutions.
5. Custom Solutions: Provide personalized consultations and custom solutions for commercial properties, showcasing how solar windows can enhance energy efficiency and tenant attraction.
6. Partnerships: Collaborate with energy efficiency consultants, real estate agents, or property management associations to gain referrals and endorsements.

7. ROI Calculators: Develop online ROI calculators or tools that allow commercial landlords to estimate potential energy savings and ROI when using solar windows.
8. Webinars and Seminars: Host webinars or seminars on energy-efficient building solutions, including solar windows, to educate and engage potential clients.

## Distribution

1. Direct to Consumer

Admittedly there isn't a huge market of consumers that will buy direct and install themselves or find a local installer, but we need to acknowledge that eCommerce is the buying preference of modern discerning customers and there is an option for low-touch sales conversions with a direct-to-consumer experience.

2. Installer Network

The installer Network of independent glaziers and glass fitters works in two ways. One, we can use them whenever we get a lead on our website that is looking for local installers. And secondly, the installers themselves can recommend our solar windows to their new and existing clients.

The Installer Network will act as a road sales team, helping us reach areas we can't reach on our own and helping us build awareness for the novel solar solution.

3. Architecture, Property Management and Engineering Firms

Although they won't sell the product per se, companies involved in designing and building new developments can influence decision makers in our target audience. Therefore, we'll ensure that we educate this type of partner, provide them with up to date collateral and brochures, and even consider commissioning them for any referrals they make or projects they work on that use our products.