



# COMMERCIAL CAPABILITY STATEMENT

## COMPANY OVERVIEW

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PiSquareKu LLC is a solar panel recycling company that was founded with the goal of creating sustainable solutions for the renewable energy industry. The company's innovative technology enables it to recycle 100% of solar panels and transform the materials into valuable resources for the lithium-ion electric vehicle battery industry. As the demand for renewable energy and electric vehicles continues to rise, the production of lithium-ion batteries will require significant resources, including silicon, which is a crucial component of the battery's anode. PiSquareKu LLC has a proprietary process to extract and refine silicon from recycled solar panels and convert it into silicon nanowires, nanoparticles, and nanopowders, which have significant applications in lithium-ion battery manufacturing, improving the battery's performance, durability, and overall efficiency.

## CORE COMPETENCIES

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- **Technical expertise:** We have an extensive understanding of the technical aspects of solar panel recycling. Our scope includes knowledge of the materials used in solar panels, the manufacturing processes, and the potential for hazardous waste. We have expertise in handling, processing, and separating the different materials found in solar panels to ensure that all materials are recycled and reused effectively.
- **Research and Development:** Any company that can recycle 100% of solar panels must continuously research and develop new processes, equipment, and techniques to stay at the forefront of the industry. We will test and evaluate new recycling methods and technologies, including those that have yet to be widely adopted.
- **Sustainability:** Sustainability is an essential competency for any solar panel recycling company. We are deeply committed to minimizing our operations' environmental impact and aim to achieve a net-zero carbon footprint. This endeavor can be achieved by adopting renewable energy, reducing waste and emissions, and implementing environmentally sustainable practices.



## CORE COMPETENCIES CONT.

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- Compliance: Compliance with relevant environmental, health, and safety regulations is essential for PiSquareKu. We stay current with all government regulations to ensure our business complies with all relevant laws and policies.
- Marketing and Customer Service: We have a strong marketing and customer service strategy to educate potential clients about the benefits of solar panel recycling and offer top-notch customer service to build and maintain lasting relationships.
- Financial management: PiSquareKu will manage the costs associated with operations, research and development to ensure it can operate sustainably over the long term.
- Teaming and subcontracting: PiSquareKu will identify potential teaming partners and subcontractors and will develop effective strategies for working with them.

## WHAT SETS US APART FROM THE COMPETITION?

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Currently, there are several companies that recycle solar panels. Most of these companies use traditional methods to recover materials such as glass, aluminum, and silicon. Recycling solar panels into nano silicon with applications for EV batteries is a relatively new process, and only a few companies specialize in this process. We have the innovative technology to recover nano silicon and a zero landfill approach to our recycling strategy. That means we can recover the remaining commodities and have the technology to produce silicon nanoparticles, nanowires, and nanopowders. Using newly developed technology, our carbon footprint to produce nano silicon is less than 1/5th of the traditional nano silicon production methods.

# OUR APPROACH

PiSquareKu understands that designing a safe, efficient, and environmentally-friendly process for recycling solar panels involves several steps:

1. Conduct a materials analysis: Solar panels contain a variety of materials, including glass, plastic, metals, and electronics. When designing an efficient recycling process, it is important to understand the composition of the panels and the best methods for recovering and processing each material.
2. Establish safety protocols: Solar panels can contain hazardous materials, such as lead and cadmium, which can pose health and environmental risks if improperly handled. It is essential to establish strict safety protocols for handling and processing solar panels to ensure the safety of workers and the environment.
3. Choose appropriate recycling methods: Several methods for recycling solar panels, including mechanical and chemical processes. The most appropriate method will depend on the composition of the panels and the desired end products. Mechanical processes are an option to recover metals. In contrast, safe chemical processes are leveraged to extract valuable elements such as nano silicon to produce electric car batteries and other semiconductor applications.
4. Optimize the process: With the appropriate recycling method, we will optimize the process to maximize efficiency and minimize waste. This method will involve using state-of-the-art equipment and technology and developing efficient logistics and material flow systems.
5. Monitor and measure environmental impact: Recycling solar panels can significantly impact the environment, so it is crucial to monitor and measure the environmental impact of the recycling process. This oversight process will involve tracking greenhouse gas emissions, waste generation, water use, and other factors.
6. Compliance with regulations: PiSquareKu knows it is critical to comply with all relevant regulations and standards related to waste management, environmental protection, and renewable energy. Compliance enforcement includes local, state, and federal regulations and industry-specific standards.

## ENERGY SOLUTIONS

We provide a comprehensive approach to achieving sustainable and efficient energy use. Our solar panel recycling service extracts valuable commodities like silver, copper, and silicon efficiently and sustainably. Also, it uses innovative technology to produce high-quality nano silicon to help develop lithium-ion and EV batteries. Contact us today to learn more about our energy solution services.

## ENVIRONMENTAL SOLUTIONS

PiSquareKu is committed to driving the growth of the solar panel recycling market and contributing to the circular economy through our sustainable approach. Our technology will play a critical role in meeting the increasing demand for high-performance batteries in the electric vehicle and renewable energy markets while reducing waste and minimizing environmental impact. Contact us to learn more about our tailored solutions and achieve a more sustainable future.

## NANOTECHNOLOGY SOLUTIONS

The demand for lithium-ion batteries, used in electric vehicles and renewable energy storage systems, is increasing rapidly, driving the demand for nano silicon, a crucial component of the battery's anode. PiSquareKu proprietary process for extracting and refining silicon from recycled solar panels presents a sustainable and cost-effective solution for producing high-quality nano-silicon materials for lithium-ion battery manufacturing. Contact us today to learn how we implement 100% landfill-free recycling and ensure you promote and achieve a more sustainable future.