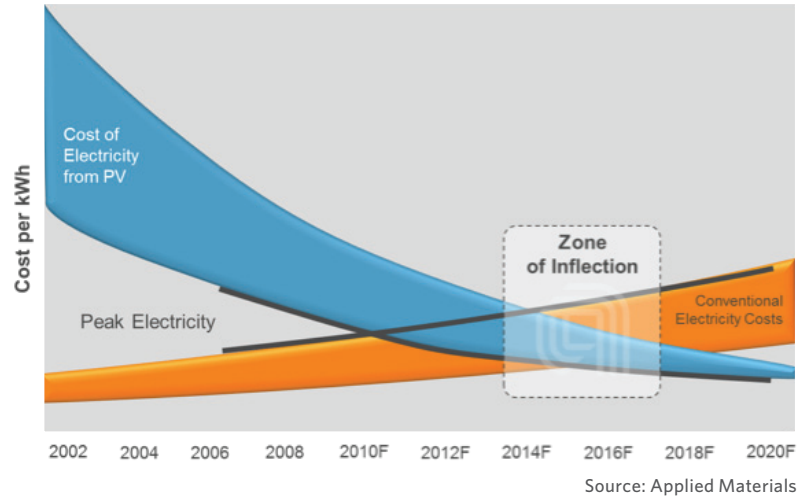


POWERING THE c-Si ROADMAP

Accelerating PV Cost Reduction to Global Grid Parity

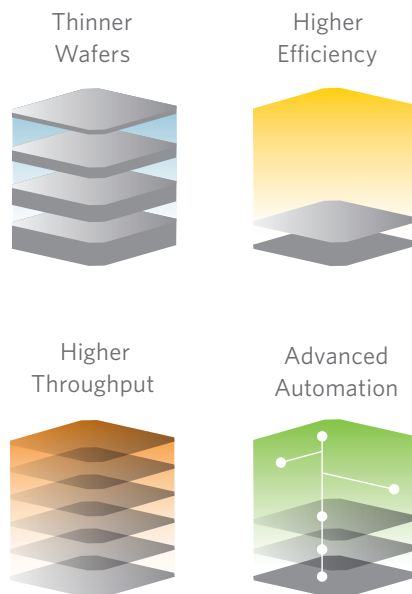
The ever increasing need for cleaner, more sustainable forms of energy is fuelling the expansion of the solar industry. As solar PV strives to become competitive with the more traditional forms of energy, it is critical to drive down cost per watt. Applied Materials is uniquely positioned to meet this goal by delivering technological advancements to increase cell efficiency and manufacturing scale to boost factory productivity.



#1 in Solar PV Manufacturing Solutions

Applied Materials is the world's #1 provider of solar PV manufacturing equipment offering a holistic solutions approach focused on state of the art equipment, qualified consumables, process know-how and advanced automation.

As PV manufacturers push for aggressive cost reduction, the need of the hour is higher throughput, higher efficiency, thinner wafers and advanced automation. Delivering equipment solutions that advance all these four critical elements in parallel requires competency across the entire PV manufacturing value chain. It also warrants that PV equipment manufacturers understand process-tool interaction and offer complete, multi-dimensional solutions that include qualified consumables and process consulting. This enables PV manufacturers to get the most out of their investments, reduce risk, lower cost and get to market faster in an increasingly competitive market place.



The Four Key Levers of PV Cost Reduction

Applied Materials offers solutions that cover almost all the key steps in c-Si PV manufacturing from wafering to cell manufacturing. We also understand process dynamics better than any other company in the solar space today thanks to 40 years of technology and market leadership in the semiconductor and flat panel display industries. And we are continually working with leading edge suppliers from around the world to develop consumables that are designed to fit our customers' needs, optimized to deliver best results and fully qualified on our equipment.

Our expertise and experience in commercializing technology, global reach and R&D infrastructure makes us truly distinct in being able to deliver both scale and technology differentiation.

POWERING THE c-Si ROADMAP

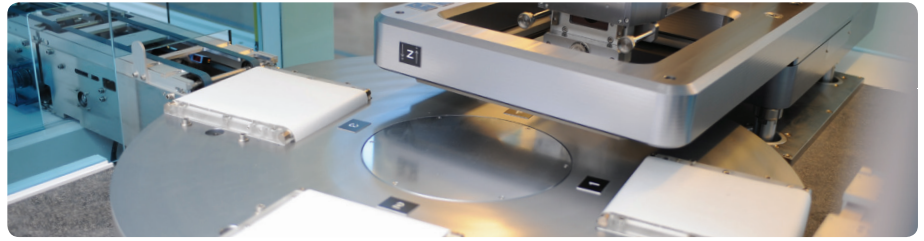
APPLIED HCT WAFERING SYSTEMS

Driving Down Wafering Cost

Advances in wafering technology are paramount to meeting the industry's cost objectives as silicon and wafering represent over 50% of total module cost. Applied HCT Wafering Systems is the market leader for solar PV wafering offering squarers, croppers and wafering systems based on wire saw technology. Applied HCT systems' provide the industry's highest productivity with best-in-class yield for lowest total cost. In addition, advancements in wire technologies and related processing techniques are accelerating customer roadmaps towards lower cost.



Applied HCT B5:
Over 1000 Systems in Production



Applied Baccini Cell Systems - Over 20 GW in Production

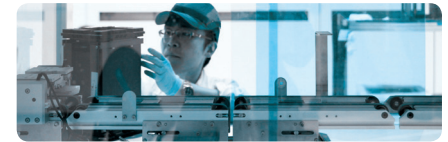
APPLIED BACCINI CELL SYSTEMS

Increasing Cell Efficiency

Boosting cell efficiency at reduced cost remains one of the foremost goals of PV manufacturing today. Meeting this goal requires advancements in existing cell manufacturing methods so that customers can effectively leverage technology innovations like advanced cell structures to commercial success. Applied Baccini Cell Systems has a 40-year legacy of continuous innovation on screen printing based PV cell manufacturing systems with several industry firsts. Baccini's fully integrated, cell metallization platforms are the cornerstone of almost every solar factory across the world. Applied Baccini continues to lead the industry by introducing innovations on existing platforms that help customers transition to the next level and newer platforms that mark a strategic shift in thinking. Further, cutting edge work with leading paste and screen manufacturers also gives Baccini customers access to high quality, low cost, fully qualified consumables.

APPLIED SOFTWARE

Automation at the equipment, process and factory is becoming increasingly important as solar factories increase in scale and complexity. As the leading supplier of factory automation and control software to the semiconductor and flat panel industries, Applied Materials is uniquely positioned to help solar factories improve production efficiency while reducing costs.



Industry's Largest Support Infrastructure

SERVICE AND SUPPORT

Applied Materials serves solar customers with the industry's largest support infrastructure, including over 3,000 expert field engineers worldwide. From specialized hardware and process knowledge to innovative parts and service solutions, we help keep systems running at peak performance and maximize the return on solar equipment investments.

Global Research and Development

Applied Materials' global R&D network is a tightly integrated web of the solar industry's top technologists. With facilities in North America (Santa Clara), Europe (Treviso, Italy and Cheseaux, Switzerland) and China (Xi'an), our aim is to continuously innovate and bring new advancements to the market that are geared towards driving down cost per watt. In addition, we focus on our customers' top efficiency and productivity challenges and collaborate with leading suppliers to develop high performance consumables.



Product Support and Applications Lab - Xi'an, China



Wafering Center of Excellence - Cheseaux, Switzerland



Cell Manufacturing Center of Excellence - Treviso, Italy

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