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# CASE STUDY KOHNOOR TEXTILE MILLS LIMITED

**Kohinoor Textile Mills Ltd.** Raiwind, a state of the art weaving mills of a leading and dynamic group of veteran Textiles Experts i.e. Kohinoor Group, always being striving hard to use every mean for energy conservation and finding alternate energy resources to reduce their electric load. Kohinoor in 2006 had power consumption of 4.8 Megawatt when they were running 252 weaving looms. It was the time when Mr. Farooq Saqib (General Manager – Kohinoor Textile Mills) planned to reduce this load and save the energy. By the time, using energy efficient equipment and reducing the electric load to a gigantic level Kohinoor now have added 48 looms more along with HVAC and other weaving shed items but the total power consumption is lowered to 4.5 Megawatt. This amazing saving has been achieved by making the new weaving shed most energy efficient.



Mr. Farooq Saqib when planned to construct a new building for additional weaving looms, utilized the previously area available within the same bounds. They got the existing spare building smashed down because the building would be reclassified from standard industrial building to environmentally sound as much as possible. This means, improved energy efficiency where it was most achievable, as in the building's thermal properties and in its lighting system. Specifically, they wanted green lighting solution, lowered indoor temperature, lowest HVAC energy consumption and improved energy efficiency with daylighting solutions for lighting as part of those goals. All these goals had to be achieved in low budget in order to minimize the total cost of this stunning project. **Above all, he saved lighting cost during the day time completely by using Sunoptics Prismatic Skylights in his weaving shed installed and supplied by Shan Associates.**

**Shan Associates** being a one stop shop for any of Textile Weaving Machinery, Weaving Accessories and Spares, Yarn and Fabrics, HVAC, Garments Machinery, Garments Trims & Accessories started its journey in 2008 by entering into Textile market with World's leading manufacturers of Weft accumulators called IROJ. By the time Shan Associates established its name while dealing Weaving Accessories and Spare parts as well as Garments sector in collaboration with Principals from Europe and Asia who are specialized in Textile sector including Groz-Beckert from Germany (Weaving Division), PRYM FASHION from Germany (Garments Accessories), CCI from Taiwan (Sample Weaving Machines), Ramallumin from Italy (Sizing and Warping machine), Vaupel from Germany (Labels Machines) and for general industry solutions Canalair from Italy (HVAC systems) and Storax from UK providing efficient automatic storage

racking systems . Then started to excel into the Alternate Energy solutions and services since 2012 by dealing in Solar Solutions for industries. Later on in 2013, Shan Associates introduced Daylight harvesting through Sunoptics High Prismatic Skylights for industries to save major portion of energy consumption that is Electric lighting costs at the day time, while at the same time pushing the boundaries of innovation in building systems. For the first time in Pakistan High Prismatic Skylights are introduced for Industrial as well as Office use for lighting purpose.



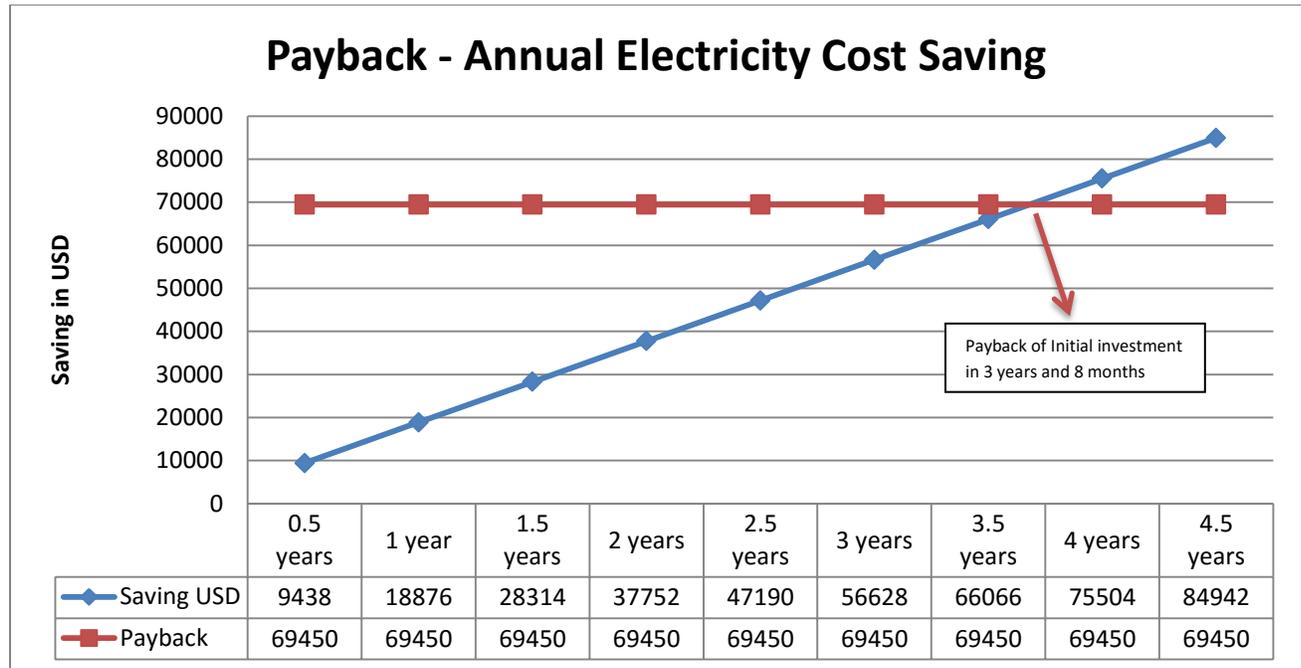
At the time of Kohinoor new building planning stage, High Prismatic Skylights were considered to be installed in the new weaving shed to illuminate the building upto 300 average lux level. After presenting the idea, Mr. Farooq Saqib and their technical team analyzed the product, project design and the enormous savings that could be done by using the Sunoptics High Prismatic Skylights. Finally they all concluded that these High Prismatic Skylights by Shan Associates casts the best overall light patterns and they will provide the best

ambient exposure. Kohinoor having a strong mission towards sustainable practices finalized to execute the project for daylight harvesting at their new weaving shed. In addition, for the evening hours Kohinoor selected LEDs to further reduce the load than standard electric lighting.

For the new building, 54 units of Sunoptics 2' x 4' Double Glazed High Prismatic Skylights were installed to illuminate the building with 300 average lux level without getting any extra heat, UV or light glare. Kohinoor did not need to increase HVAC size due to high temperature resistance and UV resistance of these Skylights. These Skylights are designed and installed to take in maximum light cast by the Sun and redistribute it evenly even at low Sun angles. Careful layout of skylights on the ceiling eliminating dark corners, hotspots and glare also SAVE 36 kW of Energy Per Hour during the daytime to save huge money and the heat from Skylights is 40% less than equivalent electric lights.



Prismatic Skylights at Kohinoor weaving shed not only reduced their building's energy consumption but also bathe their whole space in beautiful, high quality ambient and good for health Daylight that also increased productivity, efficiency and reduced absenteeism.



Shan Associates being a founding member of Pakistan Green Building Council is always enthusiastic to join hands with Industry professionals, investors and consumers to spread Green activities to maintain a positive environment for everyone by providing solutions to become Efficient.