

new products for solar architecture

NYSERDA research grant projects



As an integral aspect of our mission to expand the potential of building-integrated photovoltaic (BIPV) architectural design, Kiss + Cathcart is actively involved in developing new solar energy building products. To date, the office has received three grants from the New York State Energy Research and Development Agency (NYSERDA) to enhance the appearance and flexibility of BIPV, with the goal of making it more appealing to – and more widely used by – the architectural community. Research into the following areas has been undertaken in association with Energy Photovoltaics (EPV), one of the world's foremost innovators in PV technology.

Custom Sizes In the past, BIPV products have been made in a small range of typical sizes, limiting their application to architectural projects. Kiss + Cathcart and EPV have developed procedures and equipment that allow for economical production of custom-size PV modules to fit into many different construction and curtain-wall modules. This research was instrumental in realizing the ground-breaking PV installation at the 4 Times Square tower.

Patterns and Light Transmission Thin-film PV modules require transparent scorings in their conductive film to function. Kiss + Cathcart and EPV have taken advantage of this necessity to produce both patterns (grids, lines, dot matrices, and even images) and various degrees of translucency. This advance has allowed PV modules to be used as filtered daylight sources, which works especially well for skylights and clerestory windows.

Custom Color Probably the greatest resistance to PV use in the design community stems from the limited range of colors available. While black is optimum for absorbing solar radiation, Kiss + Cathcart and EPV are developing modules which maximize the efficiency of other colors, as well as using colored glass media to tint light passing through translucent PVs.

Kiss + Cathcart, Architects

150 Nassau Street
New York, NY 10038
tel 212 513 1711
fax 212 513 7267
www.kisscathcart.com