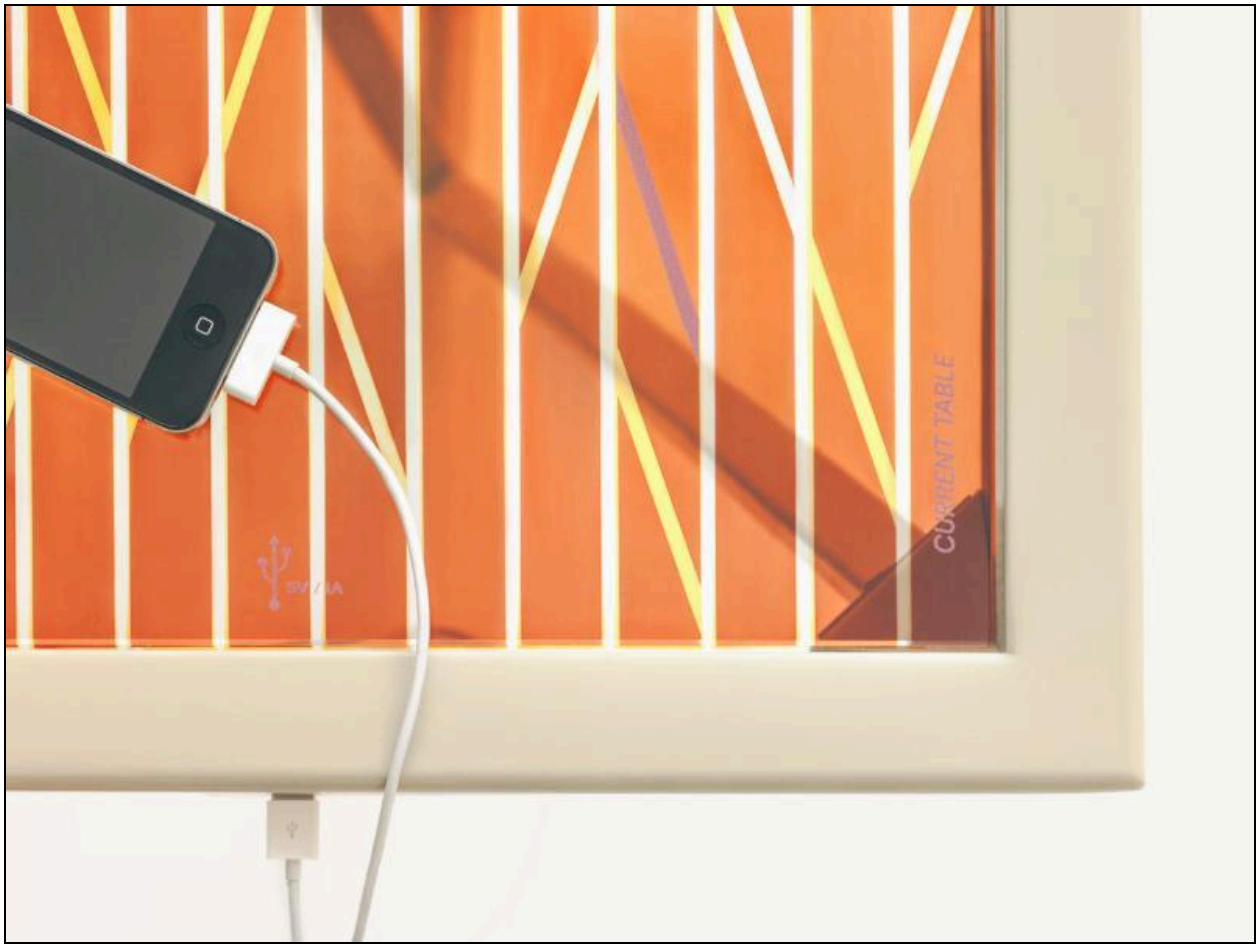
Designer Marjan van Aubel describes her interest in solar energy as an obsession, "Every surface is potential." She radiates excitement as she points out prospective solar collecting sites, imagining a house where not only the roof but also the paint and all the furniture generate enough energy to meet all of our household needs. This solar harvesting home is not some far-off future or idealistic utopia but an actual house that Marjan is hoping to design.

Marjan pulls out a delicately wrapped iridescent blue tile with a white motif that glows as it catches the sun: a precious artifact; a solar panel that at first glance looks like a tile from the walls of the Blue Mosque in Istanbul. Wafer-thin, with a metallic sheen, the solar tile is infused with potential energy. It makes the heavy blue and black photovoltaic panels traditionally

associated with solar energy suddenly seem completely archaic and clunky in comparison. It is just a piece of a project she is working on, but on its own, it is already covetable. Her other solar pieces also highlight the beauty of dye-sensitized solar cells; they seem more like fine stones or rare gems than pieces of highly engineered technology. Having worked with Swarovski to create the crystalline-structured solar panels behind *Cyanometer*, Marjan likened these products to jewels.

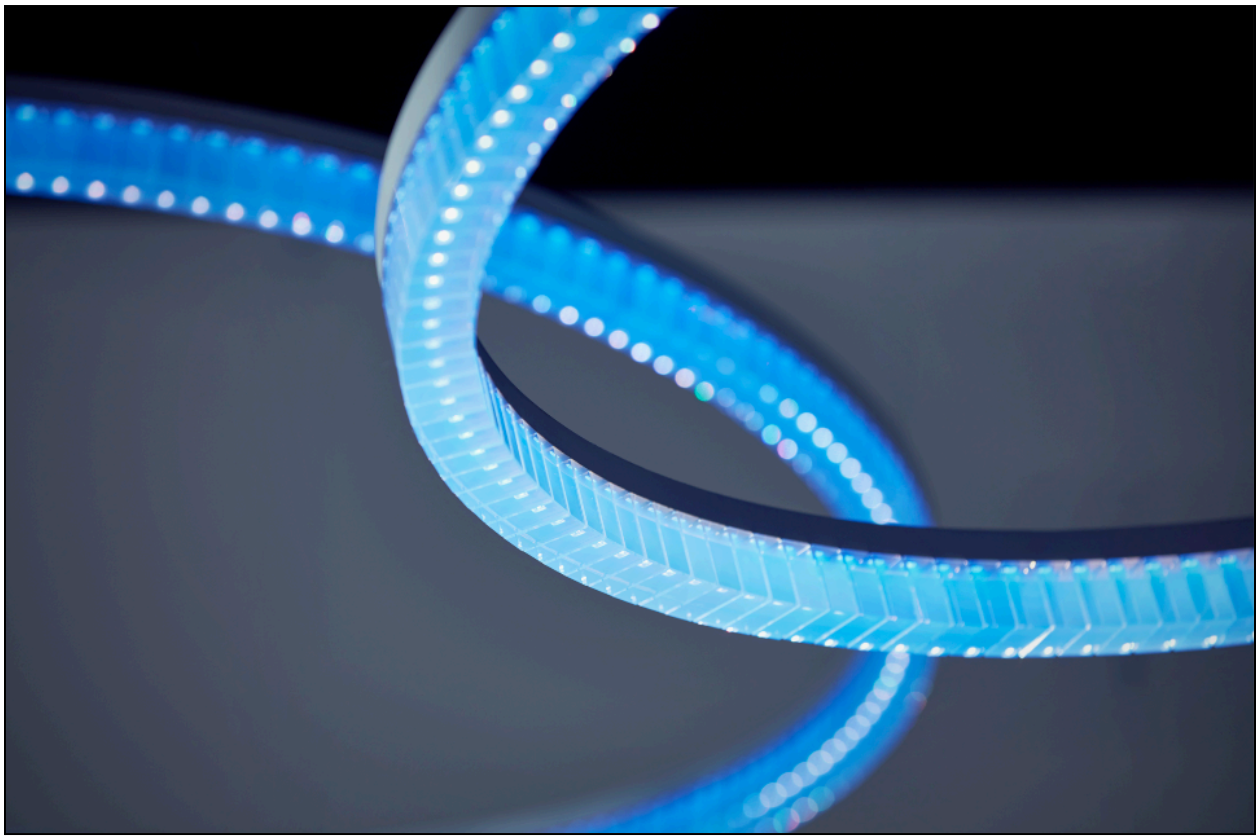
“Change needs to come from lots of angles, government, engineers, science, teachers. I am a designer so this is my way of talking about it. You can’t wait for the government to do it. You need to come up with a design solution. Giving power to the consumer. Literally.”



Although Marjan transforms the solar cells into precious objects, most of her aesthetic decisions are actually informed by physics and the requirements of the technology; she likes "to work from extreme efficiency." Her project *Current Table*, a solar table that generates energy and provides a place for people to gather, is orange because it is the most stable color for collecting solar rays in an interior setting. The roof of her recent solar greenhouses, *Power Plant*, is set at a 39˚ angle because it's the most efficient angle for solar cells to capture sunlight.

Entering such a traditionally techy field as a designer was difficult at first. Initially, the engineers she approached were skeptical and resistant to her ideas. "I got no's the whole time," Marjan says. In the five years since she began working with photovoltaics, the solar field has changed. There have been multiple projects, including the production of the *Current Table,* which prove the value of design as a tool to apply new technologies and engage the public. "Change needs to come from lots of angles, government, engineers, science, teachers. I am a designer so this is my way of talking about it." Marjan describes her persistence, "You can't wait for the government to

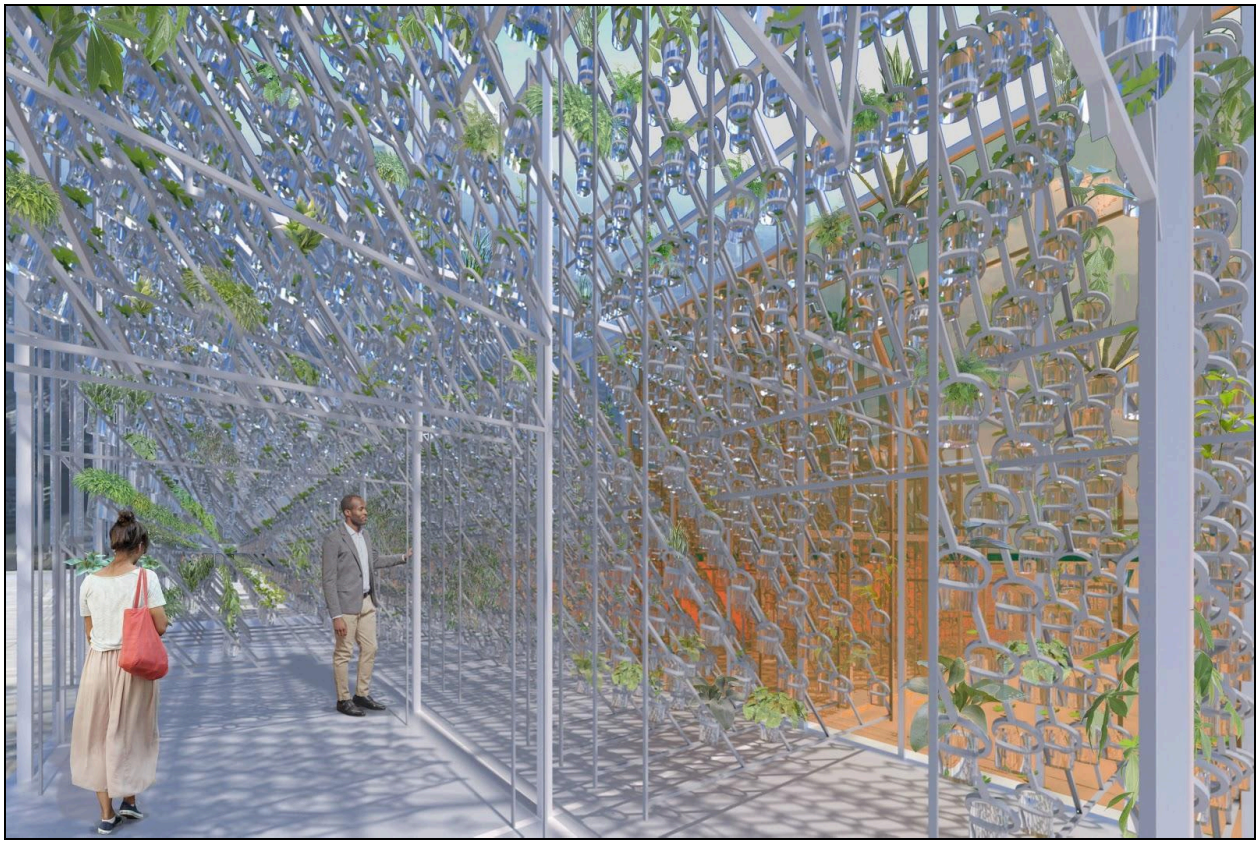
do it. You need to come up with a design solution. Giving power to the consumer. Literally.” Her ultimate goal is to make solar as democratically available and attractive as possible.



“I am working a bit in the future”

Sunlight is a free energy source with no environmental offsets. While electricity seems like a clean stable resource flowing from outlets to charge our phones, lights, and computers, the majority of electricity, 62%, is derived from fossil fuels. “We lost connection with where the energy is coming from,” Marjan describes how far we are from the labor of cutting down a tree in order to produce a couple hours of energy. Our experience of using energy is completely disconnected from its sooty air-polluting origins. With Marjan’s designs, energy is harvested on-site, allowing for the opportunity to witness a complete energy life cycle.

“I am working a bit in the future,” Marjan says of her approach. Her most recent project, *Power Plant*, an urban greenhouse powered by solar cells, addresses both increasing demands for food and the intensive energy needed to grow and transport it. In the built prototype, plants hover in a glowing pink ambiance of technical allure. *Power Plant* is designed to be scalable and in renderings it exits on the top of a skyscraper and in a desert scape. While the design feels hopeful, it hints at a grim future in which energy shortages and pressures on food systems will be felt more acutely.



Bombarded with new information about a deteriorating environment that is steadily becoming more toxic, it is easy to feel overwhelmed. Marjan admits that in her work there is “always this fight against fear.” Fear is both a motivator and an inhibitor. Focusing on energy can leave one with a sense of dread, yet she still describes herself as a positive person. To be a designer tackling these issues is an inherently optimistic act — one recognizes the problem but believes in the possibility of a solution like some giant puzzle in which all the pieces eventually come together. Her mantra is: “[To] not let this fear overtake you. But by taking little steps, you can only do what you can within your realm. It is a change of attitude for everyone.”