

# Integrated Solar Green Roofs - a Swiss Army Knife of Benefits for Building Owners

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## ABSTRACT

Rooftop solar PV systems and green rooftop gardens are two green building technologies that have experienced a rise in popularity in recent years. A common misconception is that they are mutually exclusive concepts, competitors for both rooftop space and photons. In reality, however, not only can they co-exist, but the two technologies actually work together synergistically to boost each other's performance.

Solar green roofs (systems that combines solar electric PV and vegetated green roofs) come packed with a host of benefits - both structural and financial - for building owners. The vegetated green roof system protects roof membranes from UV degradation and weathering, thermally insulates to reduce cooling costs, manages stormwater, and creates a nature-filled amenity space to boost property values. Meanwhile, the solar PV panels not only produce year-round electricity, but receive up to an 8-10% summer time boost in production efficiency from the cooling effect of the plants.

This presentation will introduce the basics of integrated solar green roof technology for building owner-operators. We will show you how to assess to what extent a solar green roof can enhance your building, and teach you how to quantify these various financial benefits to assess their actual value and payback period. Finally, we will discuss the financial incentives available to support owners in getting such a system off the ground...and onto your roof.

## BIOGRAPHY

Principal of the award-winning firm Urbanstrong, Alan is a professional engineer, LEED-AP, and Green Roof Professional. He helps building owners/operators/developers and municipal governments mitigate energy and water management issues to reduce costs and boost property values. Alan has spoken at the United Nations, appeared on MSNBC, and provided technical expert testimony.

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