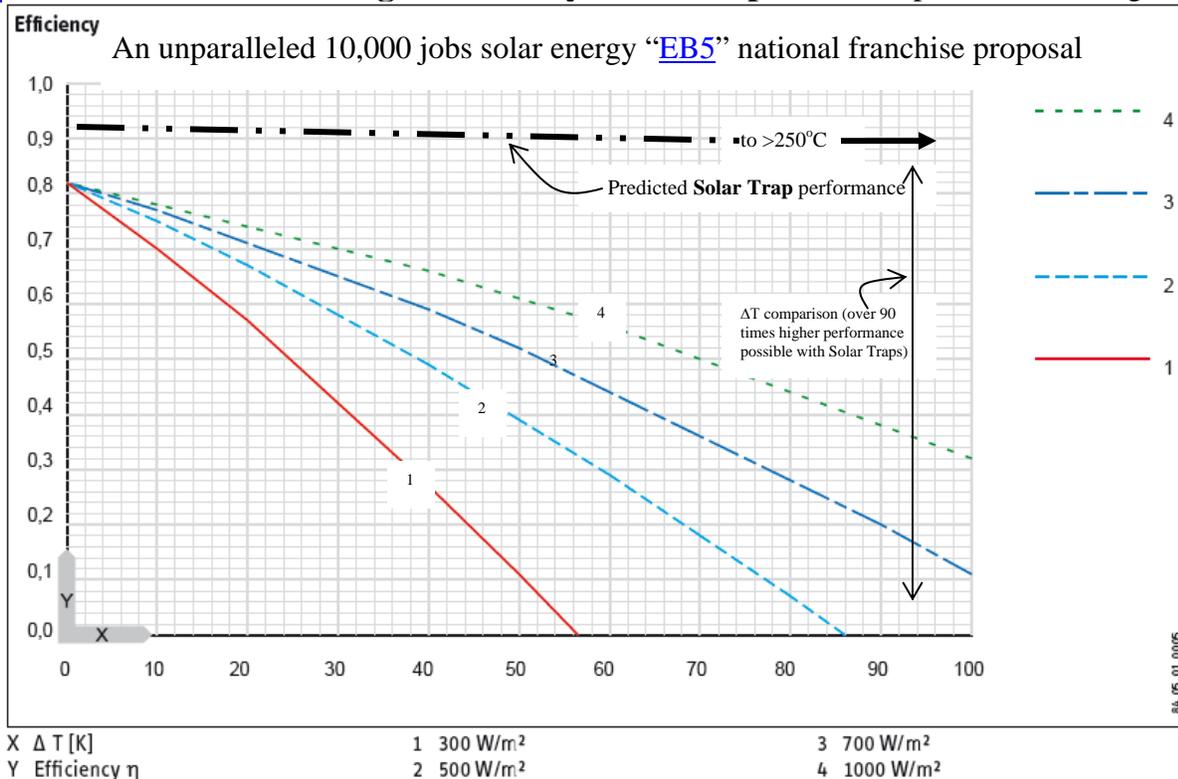


EB5 Candidate: Ultra High Efficiency Solar Traps national space-conditioning



Note that Solar Traps maintain ~90% efficiency even beyond 250C (482F) whereas Stiebel state of the art solar heater collectors achieve only ~1% efficiency at ~200C (392F). Solar Traps are predicted to be over 90 times more efficient at about 200C (392F) and more than 90 times efficiency at 250C. Thus, far fewer Solar Trap collectors can more quickly charge a given storage vessel to six times higher useful stored energy. For the first time, 100% and 24/7 total *space heating* plus hot water can save thousands per home and even hundreds of thousands per year in large commercial structures. Full Solar Trap historic technical details are available at the www.h2ope.us website. [What’s an “EB5”]

Low-cost solid matter (such as sand, not prohibitively expensive high temperature liquid) storage vessels are recommended to very safely store much higher than 250C energy, which, in turn, can be drawn down by usage to ~50°C (122F) from >250C (a delta-T of over 200C) compared to drawing down a mere 11% efficient Stiebel state of the art collector from 100C to 50C (a delta T of only 50C). Thus, a solid state storage vessel can be more quickly charged to many times more useful energy with many times smaller and less expensive Solar Traps.

More than a week of no sun can be cost affordably stored for both 100% space heating and 100% hot water with an adequate number of nearly perfect solar collectors and also if an adequate size solid matter storage vessel is provided for each solar zone. Even large multi-thousand gallon vessels can cost affordably meet almost any size building need in almost every climate.

Storage vessel per volume costs drop with volumetric capacity as a result of decreasing sheet metal surface area demands vs storage volume. (Area is a square mathematical function whereas volume favorably rises as a cubic mathematical function. E.g. a one cubic foot tank requires 6 sq feet of sheet metal, whereas 4 times more sheet metal can store 8 times higher storage).

Finally, federal government sponsored [studies](#) show that people are willing to actually **PAY** \$20 more for a home for every \$1 of energy saved. Thus, if a hypothetical \$10,000 total solar heating installation can indeed save \$2000 per year, the home can supposedly instantly sell for \$40,000 more. Few things offer such an instant high ROI (Return on Investment). Compare that to a similar cost solar-electric roof installation, which can save, at most, only hundreds per year. It is clear that solar heating with many times higher collection efficiency is the superior solar choice.

By extension, a shopping center parking lot solar canopy saving \$100,000 per year should be instantly appraised at 20 x \$100,000 or, \$2,000,000 higher. No prior art can approach these ROIs.

Thousands of Regional Solar Trap USA Installer EB-5 Program Franchises are Possible

Only hundreds of solar hot water installer companies currently exist in the USA today – largely because high-cost prior solar heating technologies offer such poor efficiencies and very low Returns on Investment. As illustrated above, Canopy type Solar Trap technology dramatically changes that with exceptionally high energy savings and instant high ROIs. Solar Traps enable not merely lower cost hot water, but total elimination of annual space heating (or space cooling) expenses as well. No prior solar art can cost effectively achieve that. *Absorption refrigeration* (or, “Einstein refrigeration”) is a well developed cooling technology which uses *heat energy, such as solar heat*, not electricity for space cooling. Thus, canopy Solar Trap technologies open thousands of new residential and commercial installation franchise opportunities to install exceptionally cost-effective 24/7 space conditioning (heating and cooling) in almost 100 million US homes, apartments, and especially parking lot canopies for about 5 million commercial buildings and shopping centers. Considerably physically smaller canopy type installations are highly preferred over prior art large, very low efficiency, rooftop installations for many reasons.

Canopy installations on driveways, patios, and especially parking lots is vastly superior to rooftop installations because roofs typically require 25-year replacement (along with solar re-installation), whereas canopies avoid those high costs. Moreover, Solar Trap canopies do not degrade classical residential appearances. Canopies protect driveways and parking lots from weathering, and can even eliminate snow removal costs.

Prior solar technologies are so inefficient that typical roofs, patios, driveways, and parking lots are simply not big enough to enable total space heating or cooling. Prior solar arts have just been supplemental energy band-aids. Solar Traps technology is so many times more efficient that far fewer/smaller solar collection area is required, thereby making small driveways and parking lot canopies ideal installations.

Think national and international

The targeted environmental and economic impacts are profound. Hypothetically, up to 10,000 Solar Trap installation-franchises could be sustained in the USA, each franchise employing more than 10 employees (100,000 new jobs possible). This first approximation is based on one Solar Trap installation per day per 10-person franchise. Thus, such an idealistic objective would require about 80 years with 10,000 Solar Trap franchises to saturate the U.S. potential solar installation market. Even at saturation, most aging solar installations would likely require replacement and the estimated \$2 trillion U.S. installation cycle would repeat indefinitely. Exporting modular advanced Solar Trap systems from the U.S. represents even larger potential.

In conclusion, super efficient Solar Trap canopy installation franchises - particularly homes and shopping center parking lots - are highly recommended. Clean energy government incentives further enhance solar customers and/or franchisees.

Several major variations on this franchise theme are also possible, including the creation of one or more central Solar Trap manufacturing sites to serve numerous installer franchisers. Please explore the numerous Solar Trap licensing options with us. Keep in mind that Pinnacle Products is only an intellectual property licensing company.

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