



US 20220360210A1

(19) **United States**(12) **Patent Application Publication**
Lyford et al.(10) **Pub. No.: US 2022/0360210 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **SELF POWERED BUILDING UNIT****Publication Classification**(71) Applicant: **Clearvue Technologies Ltd**, West
Perth, Western Australia (AU)(72) Inventors: **Jamie Lyford**, West Perth, Western
Australia (AU); **Victor Rosenberg**,
West Perth, Western Australia (AU);
Christopher Cole, West Perth, Western
Australia (AU)(51) **Int. Cl.****H02S 20/26** (2006.01)**H02S 40/38** (2006.01)**H02S 40/22** (2006.01)(52) **U.S. Cl.**CPC **H02S 20/26** (2014.12); **H02S 40/38**
(2014.12); **H02S 40/22** (2014.12)

(57)

ABSTRACT

The present disclosure provides a building unit comprising first and second light transmissive panels. The first panel defines a light receiving surface. The building unit also comprises a structure supporting the panels in a spaced apart relationship to form a cavity therebetween. In addition, the building unit comprises one or more photovoltaic cells disposed within the cavity adjacent the structure. The building unit also comprises an arrangement supported by the structure for re-directing non-visible wavelengths of sunlight incident on or passing through the light receiving surface in a direction generally transverse to a plane of the unit toward the structure for collection by the one or more photovoltaic elements. Further, the building unit comprises one or more electrically powered devices within the cavity and arranged to receive electrical power generated by the one or more photovoltaic cells.

(21) Appl. No.: **17/633,252**(22) PCT Filed: **May 21, 2020**(86) PCT No.: **PCT/AU2020/050501**

§ 371 (c)(1),

(2) Date: **Feb. 7, 2022**(30) **Foreign Application Priority Data**

Aug. 8, 2019 (AU) 2019902843

Oct. 1, 2019 (AU) 2019903697

