Cost of solar panels is at $2/watt, materials used are costly, we propose a solution to manufacture solar panels from Rice Husk Ash (RHA) with an estimated cost of less than S0.5/wat.

Silicon is the most available element with approximately 25.7% in the Earth's crust after oxygen and possess potential role as an insulator, used in household (e.g., sealants for cooking apparatus), Solar heating of buildings, Solar distillation, Solar pumping, Solar furnaces, Solar cooking, Solar electric power generation. Silicon emerged as one of the most popular and vital semiconductor materials since the emergence of the solid-state electronics. Solar panels (Solar energy to Direct Current) are made using silicon, hence, making it vital in photovoltaic industry.

An alternative and a cheapest way to obtain silicon is from rice husk ash (RHA) which is an end-product of agriculture waste. Agricultural residue is made up of organic compounds (71-87% wt.) and inorganic compounds (13-29% weight). Rice husk is a by-product from milling rice, comes under organic compounds, and it has components like lignin, cellulose, and hemicellulose. It contains about twenty percent of ash which can be retrieved as amorphous, because it naturally absorbs silicon from the soil and transports in the form of silicic acid to its outer surfaces which becomes concentrated due to evaporation and is subsequently polymerized into silica cellulose membrane. This silica (SiO_2) can be thermally reduced further to form Silicon (Si) via use of Microwave ashing Process, Acid Digestion etc. About more than 20 million tons of RHA are produced annually in India. One ton of paddy milled generates 200kg of husk from which 50kg of ash can be generated which in-turn can produce 40kg silica. Therefore, for a ton of paddy, 40kg of silica can be produced, which can be the basis to produce large number of solar panels.

We propose to submit a proposal to manufacture solar panels from the ash of rice husk.