# Production of single-cell protein from $CO_2$ and electricity

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**Abstract :**

Solar Foods plans to bring to the market in 2021 a new kind of a protein produced from $CO_2$, renewable electricity, water and minerals. This enables food production independently of environmental constraints like climate, weather or availability of fertile land. Food production based on the use of electricity is efficient in terms of land and energy use. The production cost is declining with the steep decline in electricity generation cost from renewables – particularly solar power.

Historically the man has collected for food only those species that it has been able to see, feel and hold between the fingers. Homogenisation of the diets globally has resulted in only some 20 species covering 75% of the calories. Single cells offer a completely new range of natural food harvest available for human consumption at large scale. The technological approach goes around the limitations of the traditional agriculture: low efficiency of the photosynthesis and environmental impacts due to land use.

**Keywords:** food, protein, gas fermentation, single-cell protein, carbon-capture and utilization.