# Off-grid Cold Storage Business Models

## Cooling as a Service (CaaS)

- Cooling as a Service is a business model whereby the customer pays for cooling on a usage basis rather than purchasing the cooling equipment directly.[1] This model creates incentives that optimize efficiency and maintenance. In off-grid settings this approach to cooling is particularly attractive due to its low capital intensity and minimal technical capacity requirement for the end user. A traditional **unit sale** business model is uncommon outside of donor supported NGOs and governments. In the off-grid cold storage sector we see companies experimenting with two distinct types of service models:

## Pay-as-you-store

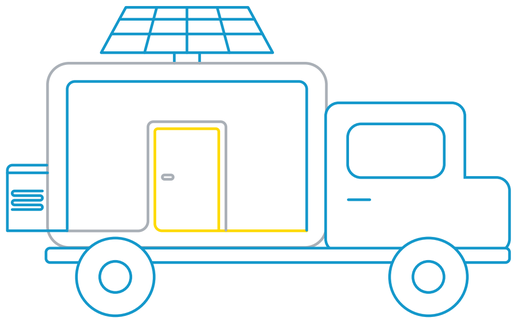
- **Pay-as-you-store models** charge customers per day for an allotted space within the cold storage unit, typically delineated with some type of reusable tray, or crate. This business approach is particularly attractive for small market vendors without access to electricity or safe storage who would like to prolong the shelf life of the perishable goods the sell.

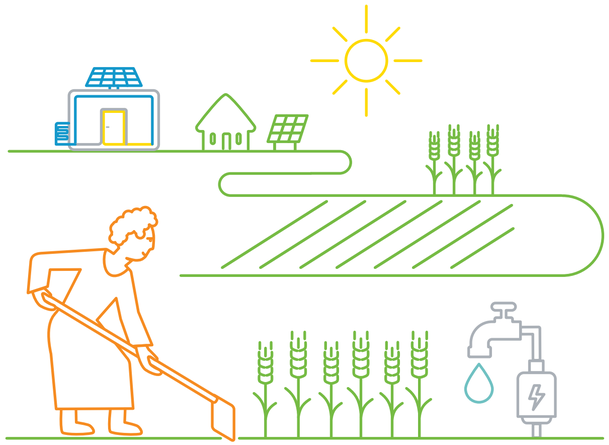
## Leasing models

- **Leasing models** are usually offered to larger farms or farming cooperatives that act as aggregators for their members.

- **IoT and Maintenance** - Advanced sensing and IoT controls allow leasing models to be monitored in real time and controlled remotely. This limits leasing risk for the company allows for preventative maintenance. The user benefits from reduced operational oversight, better unit performance and lower operating costs.

- **Portability shared user base** - Some companies build their unit's so they are easily transported. This allows the owner of the unit to take advantage of multiple growing seasons in different geographies, reducing the time it takes to pay off the unit. Users benefit by only paying for cooling during the time of year they need it.





1. KCEP. 2018. Cooling as a Service (Caas). https://www.k-cep.org/wp-content/uploads/2018/07/Cooling-as-a-service-Knowledge-brief-6.7.2018_Final_online_v1.pdf