Energizing Food Systems

**Electricity (Solar Photovoltaic)**
1. Pumps for irrigation, water distribution, lifting and oxygenation of fish ponds.
2. Power machines for crop processing, milling, grinding, de-husking, pressing, canning, sealing and packaging.
3. Refrigeration for fresh produce and milk to preserve and improve post harvest handling of produce.
4. Charging and Powering of electronic equipment (mobile phones, radios and TV) for agronomic information, forecasts, trading and mobile banking.
5. Sludge as by-product of biodigestion applied as fertilizer for agriculture.
6. Biogas from chicken manure powers incubators and lights for poultry farms.

**Thermal Systems**
6. Thermal Energy (biogas, solar thermal) to pasteurize milk, and biogas for refrigeration to preserve vegetables, meats, eggs and milk.
7. Solar thermal provides heat and improved combustion for curing leaves, canning beans, drying fruits & grains, smoking fish & meats, firing bricks.
8. Collecting organic waste that improves sanitation for communities and provides biogas for cooking.

**Biomass Production**
10. Agroforestry and intercropping with trees for firewood produces wild foods, seasonal crops and improves soil on degraded lands.
11. Agri-residuals, waste from timber industry and improved charcoal production provide alternative sources of cooking fuel.
12. Monitoring biomass growth from satellite to pay smallholder farmers for improved forest and fuelwood management.

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