The background of the slide is a close-up photograph of a large number of orange fish, likely tilapia, swimming in a tank. The fish are densely packed, and their bright orange color is the dominant visual element. The water appears slightly murky, and there are some white, fibrous-looking structures visible, possibly part of the aquaponics system's filtration or growing media.

The Future of Commercial Scale Aquaponics

Mari's Gardens

Fred Lau

Commercial Scale Aquaculture Farm in Ecuador



asc Aquaculture
Sewardship
Council

**INTERNATIONAL STANDARDS FOR
RESPONSIBLE TILAPIA AQUACULTURE (ISRTA)**

Mainland Corporate Farming



Cascadian Farms



Sugarland Farms



Hamakua Springs



Hamakua Springs



Hamakua Springs Refrigeration Unit



Hamakua Springs Hydro Electric Plant



Papaya Farm



Papaya Packing



Mari's Gardens



Mari's Gardens Hydroponic Tomatoes



Mari's Gardens Hydroponic Green House



Mari's Gardens Pond Construction



Mari's Gardens Stocked Pond



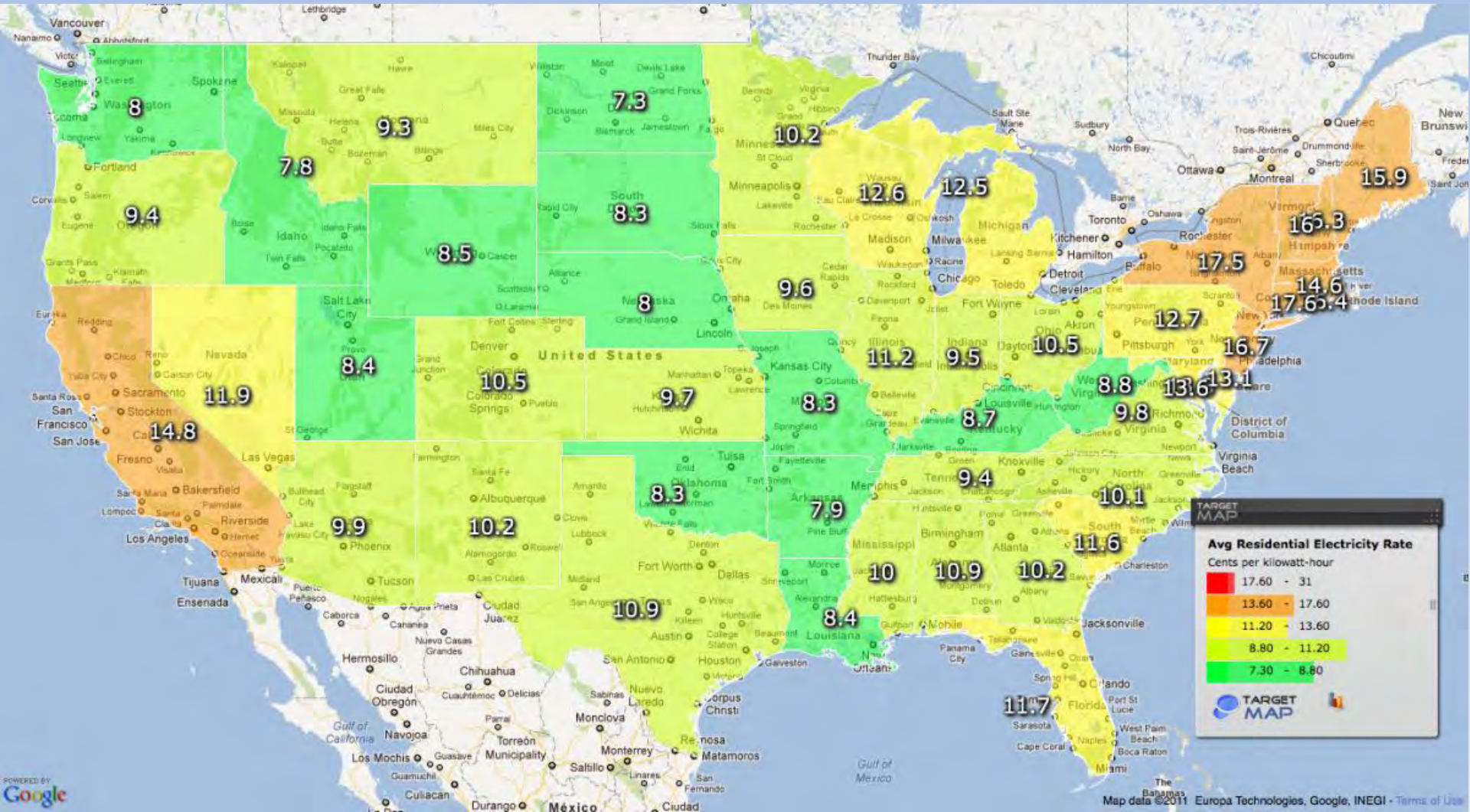
Labor Intensive, Low Mechanization



Labor Intensive, Low Mechanization



Hawaii Costs Highest in the Nation



123 PV Cells Supplementing Power



Wind Mill Supplementing Aeration



High Cost of Inputs



Making Aquaponics Commercially Viable

- Determining Economy of Scale
- Mechanization to reduce labor cost
- Controlling electrical costs using efficient equipment
- Maximizing use of renewable energy resources
- Controlling feed costs by promoting the creation of a feed-mill in Hawaii