```sql
-- Location Table
CREATE TABLE Location (
postal_code VARCHAR(10) NOT NULL,
city VARCHAR(250) NOT NULL,
state VARCHAR(3) NOT NULL,
latitude DECIMAL(9, 6) NOT NULL,
longitude DECIMAL(9, 6) NOT NULL,
PRIMARY KEY (postal_code));


-- Household Table
CREATE TABLE Household (
email VARCHAR(100) NOT NULL,
square_footage INT NOT NULL,
thermostat_cooling INT DEFAULT NULL,
thermostat_heating INT DEFAULT NULL,
postal_code VARCHAR(10) NOT NULL,
type VARCHAR(100) NOT NULL,
PRIMARY KEY (email),
FOREIGN KEY (postal_code)
      REFERENCES Location(postal_code));



-- Public Utility Table
CREATE TABLE PublicUtility (
household_email VARCHAR(90) NOT NULL,
name VARCHAR(90) NOT NULL,
PRIMARY KEY (household_email, name),
FOREIGN KEY (household_email)
      REFERENCES Household(email));



-- Appliance Manufacturer Table
CREATE TABLE ApplianceManufacturer (
name VARCHAR(90) NOT NULL,
PRIMARY KEY (name));
```

```sql
-- Water Heater Table
CREATE TABLE WaterHeater (
appliance_number INT NOT NULL,
household_email VARCHAR(90) NOT NULL,
model_name VARCHAR(90) DEFAULT NULL,
btu_rating INT NOT NULL,
tank_size FLOAT(5,1) NOT NULL,
energy_source VARCHAR(90) NOT NULL,
temperature_setting INT DEFAULT NULL,
manufacturer_name VARCHAR(90) NOT NULL,
PRIMARY KEY (appliance_number, household_email),
FOREIGN KEY (household_email)
    REFERENCES Household(email),
FOREIGN KEY (manufacturer_name)
    REFERENCES ApplianceManufacturer(name));


-- Air Handler Table
CREATE TABLE AirHandler (
appliance_number INT NOT NULL,
household_email VARCHAR(90) NOT NULL,
model_name VARCHAR(90) DEFAULT NULL,
btu_rating INT NOT NULL,
fan_rotation INT NOT NULL,
manufacturer_name VARCHAR(90) NOT NULL,
PRIMARY KEY (appliance_number, household_email),
FOREIGN KEY (household_email)
    REFERENCES Household(email),
FOREIGN KEY (manufacturer_name)
    REFERENCES ApplianceManufacturer(name));


-- Air Conditioner Table
CREATE TABLE AirConditioner (
appliance_number INT NOT NULL,
```

```sql
household_email VARCHAR(90) NOT NULL,
energy_efficiency_ratio FLOAT(5,1) NOT NULL,
PRIMARY KEY (appliance_number, household_email),
FOREIGN KEY (household_email)
      REFERENCES Household(email));


-- Heater Table
CREATE TABLE Heater (
appliance_number INT NOT NULL,
household_email VARCHAR(90) NOT NULL,
energy_source VARCHAR(15) NOT NULL,
PRIMARY KEY (appliance_number, household_email),
FOREIGN KEY (household_email)
      REFERENCES Household(email));


-- Heat Pump Table
CREATE TABLE HeatPump (
appliance_number INT NOT NULL,
household_email VARCHAR(90) NOT NULL,
seasonal_energy_efficiency_ratio FLOAT(5,1) NOT NULL,
heating_seasonal_performance_factor FLOAT(5,1) NOT NULL,
PRIMARY KEY (appliance_number, household_email),
FOREIGN KEY (household_email)
      REFERENCES Household(email));


-- Power Generator Table
CREATE TABLE PowerGenerator (
power_generator_number INT NOT NULL,
household_email VARCHAR(90) NOT NULL,
avg_monthly_kwh INT NOT NULL,
battery_storage_capacity INT DEFAULT NULL,
type VARCHAR(125) NOT NULL,
PRIMARY KEY (power_generator_number, household_email),
FOREIGN KEY (household_email)
      REFERENCES Household(email));
```