

Green Energy Usage Record Phase -3

Phase 3: Data Modeling & Relationships Goal: Build the data model to support energy monitoring, devices, and personnel-role tracking in Salesforce.

1. Standard & Custom Objects

- Standard Objects:
- Contact (used to represent Customers)
- Case (used to manage service issues)
- Custom Objects:
- Energy Device (represents devices like solar panels, wind turbines)
- Energy Usage Record (tracks energy data over time)
- Personnel (tracks roles including Technician, Solar Agent, Team Lead, etc.)

| LABEL | API NAME | TYPE | DESCRIPTION | LAST MODIFIED | DEPLOYED | |
|---------------------|-----------------------|---------------|--|---------------|----------|---|
| Energy Device | Energy_Device_c | Custom Object | "Tracks solar panels, wind turbines, etc." | 9/19/2025 | ✓ | ▼ |
| Energy Usage Record | Energy_Usage_Record_c | Custom Object | | 9/19/2025 | ✓ | ▼ |

| LABEL | API NAME | TYPE | DESCRIPTION | LAST MODIFIED | DEPLOYED | |
|----------------|---------------|-----------------|-------------|---------------|----------|---|
| Personnel | Personnel_c | Custom Object | | 9/19/2025 | ✓ | ▼ |
| Social Persona | SocialPersona | Standard Object | | | | |

2. Fields

- Energy Device:
- Device ID
- Device Type
- Installation Date
- Status
- Location

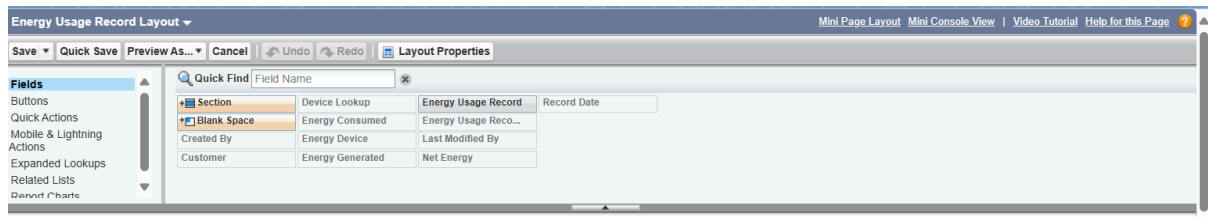
- Energy Usage Record:
 - Record Date
 - Energy Generated (kWh)
 - Energy Consumed (kWh)
 - Net Energy (calculated field)
 - Device Lookup (relationship to Energy Device)
 - Personnel:
 - Role
 - Employee ID
 - Assigned Devices (lookup/junction)
 - Contact Lookup (relationship to Contact)

| Fields & Relationships | | |
|---------------------------------|------------------------|------------------------------|
| 11 Items, Sorted by Field Label | | |
| FIELD LABEL | FIELD NAME | DATA TYPE |
| Created By | CreatedById | Lookup(User) |
| Customer | Customer__c | Lookup(Contact) |
| Device Lookup | Device_Lookup__c | Lookup(Energy Device) |
| Energy Consumed | Energy_Consumed__c | Number(16, 2) |
| Energy Device | Energy_Device__c | Master-Detail(Energy Device) |
| Energy Generated | Energy_Generated__c | Number(16, 2) |
| Energy Usage Record | Energy_Usage_Record__c | Lookup(Contact) |
| Energy Usage Record Name | Name | Text(80) |
| Last Modified By | LastModifiedById | Lookup(User) |

3. Page Layouts

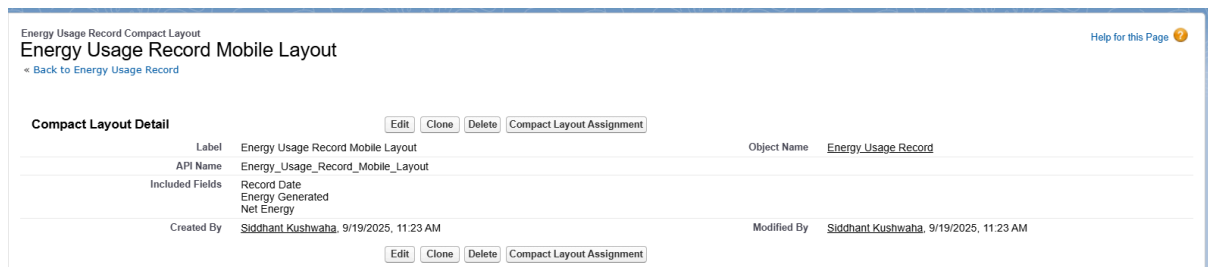
- Energy Device Layout:
 - Shows device details, related usage records, and related personnel assigned to device.
 - Energy Usage Record Layout:
 - Displays energy analytics fields and shows the related energy device details.

- Personnel Layout:
- Shows assigned devices, cases handled, and contact information.



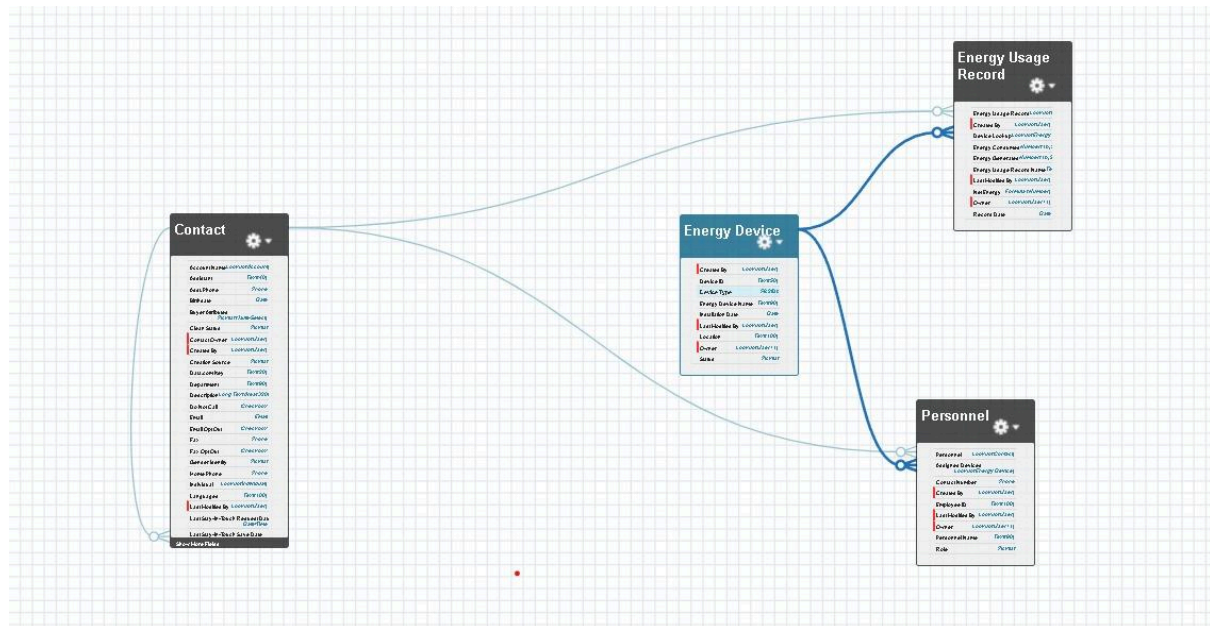
4. Compact Layouts

- Energy Device (Mobile View):
 - Device ID, Device Type, Status
- Energy Usage Record (Mobile View):
 - Record Date, Energy Generated, Net Energy



5. Schema Builder

- Used to visually map and verify relationships for better understanding of data flow between
- Energy Device → Energy Usage Record → Personnel → Customer (Contact)



6.Relationships

- Energy Device → Energy Usage Record: Master-Detail relationship with Energy Device as the parent owning usage records.
- Energy Usage Record → Customer (Contact): Lookup relationship tying usage logs to customer accounts without ownership dependencies.
- Personnel → Energy Device: Lookup relationship linking technicians to devices they maintain or operate.
- Personnel → Personnel (Supervisor/Team Lead): Self-lookup relationship enabling hierarchical supervision within personnel records.

| | | |
|---------------------|------------------------|------------------------------|
| Customer | Customer__c | Lookup(Contact) |
| Device Lookup | Device_Lookup__c | Lookup(Energy Device) |
| Energy Consumed | Energy_Consumed__c | Number(16, 2) |
| Energy Device | Energy_Device__c | Master-Detail(Energy Device) |
| Energy Generated | Energy_Generated__c | Number(16, 2) |
| Energy Usage Record | Energy_Usage_Record__c | Lookup(Contact) |

7. Junction Objects

- Created a Device Assignment junction object to handle many-to-many relationships where:
 - One technician can manage multiple devices.
 - One device can be maintained by multiple technicians.
- Fields include Technician Lookup, Device Lookup, and Assignment Date

In conclusion, choosing the right Salesforce user license depends on the role's access needs:

- The Salesforce license is ideal for managers who require full CRM access and capability to use standard and custom Salesforce apps.
- The Salesforce Platform license fits users needing access mainly to custom apps without full CRM functionalities.

SETUP > OBJECT MANAGER

Energy Usage Record

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Fields & Relationships

11 Items, Sorted by Field Label

- [Customer](#)
- [Device Lookup](#)
- [Energy Consumed](#)
- [Energy Device](#)
- [Energy Generated](#)
- [Energy Usage Record](#)
- [Energy Usage Record Name](#)
- [Last Modified By](#)
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