This document contains a template form jurisdictions can adapt for use by building owners and code enforcement and verification officials for Zero Code Framework compliance, with accompanying form completion instructions.

The form is intended to be completed by building owners seeking Zero Code Framework compliance, for submittal to their jurisdiction’s code enforcement and verification officials.

**Template Form**

**Form Instructions**
### Submittal Requirements

#### Renewable Energy Procurement Policy

#### Project Information

<table>
<thead>
<tr>
<th>Applicant Name:</th>
<th>Project Application No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicant Phone:</th>
<th>Project Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicant Email:</th>
<th>Primary Building Use:</th>
<th>No. Floors:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicant Address:</th>
<th>Project Address:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

#### Building Energy

*See Instructions: Building Energy Calculation* to determine the Building Energy. Indicate method used and provide results here. If using the performance method, attach the energy model report with submission.

Method used:
- ☐ Prescriptive Method: \( \frac{\text{Building Energy}}{\text{(Mbtu/yr)}} \)
- ☐ Performance Method: \( \frac{\text{Building Energy}}{\text{(Mbtu/yr)}} \)
- ☐ Energy Model Report Attached

#### On-Site Renewable Energy System Projected Production & Remaining Energy Demand

*See Instructions: On-Site Renewable Energy System Projected Production & Remaining Energy Demand* to determine the potential and projected production of an on-site RE system. Indicate methods used and provide results here. Attach report with submission.

Method used:
- On-site PV Projected Production: \( \frac{\text{(Mbtu/yr)}}{\text{(On-site Prod.)}} \)
- Other On-site Renewable Energy System: \( \frac{\text{(Mbtu/yr)}}{\text{(On-site Prod.)}} \)
- Remaining Energy Demand: \( \frac{\text{(Mbtu/yr)}}{\text{(Building Energy)} - \left( \sum \text{On-Site Prod.)} \right)} \)
- ☐ Report(s) Attached

#### Off-Site Renewable Energy Procurement


<table>
<thead>
<tr>
<th>Procurement Method</th>
<th>Annual Production (RE\text{offsite})</th>
<th>Procurement Factor (PF\text{f})</th>
<th>Adjusted Procurement</th>
<th>Contract Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Ownership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Retail Pricing</td>
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<td></td>
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<tr>
<td>FPPA</td>
<td></td>
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</tr>
<tr>
<td>Community Renewables</td>
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<tr>
<td>REIF</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Utility Renewable Contract</td>
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</tr>
<tr>
<td>RECs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (RE_{\text{offsite}}):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Architecture 2030 provides this form as a template only. Adoption of this form includes adopting all risks and responsibilities by the adopting jurisdiction.
Procurement Contracts Requirements

By checking the boxes and signing below I, ____________________, verify that all off-site procurement contracts comply with the requirements.

☐ The building owner shall sign a legally binding contract to procure qualifying off-site renewable energy.

☐ The procurement contract shall have a duration of not less than 15 years and shall be structured to survive a partial or full transfer of ownership of the property.

☐ RECs and other environmental attributes associated with the procured off-site renewable energy shall be assigned to the building project for the duration of the contract.

☐ The renewable energy generating source shall include one or more of the following: photovoltaic systems, solar thermal power plants, geothermal power plants, and wind turbines.

☐ The generation source shall be located where the energy can be delivered to the building site by the same utility or distribution entity, the same independent system operator (ISO) or regional transmission organization (RTO), or within integrated ISO’s (electric coordination council).

☐ The off-site renewable energy producer shall maintain transparent accounting that clearly assigns production to the building. Records on power sent to or purchased by the building shall be retained by the building owner and made available for inspection by the code official upon request.

Prepared by: ___________________________  print   sign   date

Approved by: ___________________________  print   sign   date
INSTRUCTIONS:
Building Energy Calculation

There are two options for establishing total Building Energy: PRESCRIPTIVE METHOD or PERFORMANCE METHOD, choose one.

Building Energy is defined as “All energy consumed at the building site as measured at the site boundary. Contributions from on-site or off-site renewable energy systems shall not be considered when determining the building energy.”

I. PRESCRIPTIVE METHOD

A. When the prescriptive method is used for compliance with the ________________________________

(Enter policy name here.)

Building Energy shall be determined by multiplying the gross conditioned floor area plus the gross semiheated floor area of the proposed building by the prescriptive renewable energy requirement from Table 1 (below). Use a weighted average for mixed-use buildings. See the example on the next page.

B. Using the table:

1. Find your site’s Climate Zone
2. Using Table 1 below, identify your square footage multiplier by following your Climate Zone column and Building Use row.
3. Multiply the conditioned and semi-conditioned square footage with the multiplier from Table 1.
4. Sum the products of your calculations and convert units as necessary.
5. Write the result on the Enforcement and Verification Guide

II. PERFORMANCE METHOD

A. When the performance method is used for compliance with the ________________________________

(Enter policy name here.)

the building energy shall be determined from energy simulations.

B. Provide a report of the energy simulations. Ensure the units of building energy match the units on Enforcement and Verification Form.

C. Fill in the value in the Building Energy field next to “Performance Method.”

1 IECC Code Section C401.2.1(1)
2 IECC Code Section C401.2.1, Item 2 or Section C401.2.2
III. EXAMPLE

A new mixed-use project at 1012 Cherry St., Kansas City, MO with areas as follows:

- 100,000 ft² Office (B)
- 15,000 ft² Restaurant (A-2)
- 30,000 ft² Retail (M)

1. **Find Climate Zone**
   a) 6a

2. **Find multiplier for each use in the given climate zone (6a) via Table 1**
   a) Office = 33 kBtu/ft²-yr
   b) Restaurant = 589 kBtu/ft²-yr
   c) Retail = 60 kBtu/ft²-yr

3. **Multiply each use area by the multiplier, find the sum, and convert units.**
   a) Office:
      \[ 100,000 \text{ sq ft} \times 33 \frac{\text{kBtu}}{\text{ft}^2\text{-yr}} = 3,300,000 \text{ kBtu/yr} \]
   b) Restaurant:
      \[ 15,000 \text{ sq ft} \times 531 \frac{\text{kBtu}}{\text{ft}^2\text{-yr}} = 7,965,000 \text{ kBtu/yr} \]
   c) Retail:
      \[ 30,000 \text{ sq ft} \times 60 \frac{\text{kBtu}}{\text{ft}^2\text{-yr}} = 1,800,000 \text{ kBtu/yr} \]

4. **Sum:**
   \[ 1,800,000 \text{ kBtu/yr} \]
   \[ + 7,965,000 \text{ kBtu/yr} \]
   \[ + 3,300,000 \text{ kBtu/yr} \]
   \[ = 13,065,000 \text{ kBtu/yr} \]
   Convert kBtu/yr to mBtu/yr (1,000 : 1) = **13,065 mBtu/yr**

5. **Fill in the value in the Building Energy field by “Prescriptive Method.”**
INSTRUCTIONS:
Building Energy Calculation

Table 1.
(kBtu/ft²/yr)

<table>
<thead>
<tr>
<th>BUILDING AREA TYPE</th>
<th>CLIMATE ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0A/1A</td>
</tr>
<tr>
<td>Hotel/motel (R-1)</td>
<td>73</td>
</tr>
<tr>
<td>Multiple-family (R-2)</td>
<td>43</td>
</tr>
<tr>
<td>Office (B)</td>
<td>31</td>
</tr>
<tr>
<td>Restaurant (A-2)</td>
<td>389</td>
</tr>
<tr>
<td>Retail (M)</td>
<td>46</td>
</tr>
<tr>
<td>School (E)</td>
<td>42</td>
</tr>
<tr>
<td>Warehouse (S)</td>
<td>9</td>
</tr>
<tr>
<td>All others</td>
<td>55</td>
</tr>
</tbody>
</table>

Source: Table CC 103.1 IECC 2021
INSTRUCTIONS:
On-Site Renewable Energy System Projected Production
& Remaining Energy Demand

Determine the on-site renewable energy system’s projected production with software approved by the code official, an energy model, or other means. Attach the report and record the projected production.

If using another or additional method of on-site renewable energy system production, provide the system type and projected production.

To determine the remaining energy demand ($E_{demand}$), subtract the total on-site projected production ($RE_{onsite}$) from the building energy ($E_{building}$). Calculate remaining energy demand ($E_{demand}$) and write this total in the remaining energy demand box.

$$E_{demand} = RE_{onsite} - E_{building}$$

Approved software may include: PV Watts (https://pvwatts.nrel.gov/), The Zero Code 2.0 Calculator (https://zero-code.org/energy-calculator/), or...
INSTRUCTIONS:
Off-site Renewable Energy Procurement

Adjusted off-site renewable energy procurement (RE_{offsite}) shall be equal to or greater than the remaining energy demand (E_{demand}).

\[ RE_{offsite} \geq E_{demand} \]

Use the off-site renewable energy procurement table on the submittal requirements form to calculate the total adjusted procurement (RE_{offsite}). Total adjusted procurement must be equal to or greater than the remaining energy demand (E_{demand}). Be sure to consult this table during contract negotiation of renewable energy procurement sources. For more detailed information on off-site procurement methods, see the Renewable Energy Procurement Guide Document to ensure the correct amount of renewable energy is procured.

To calculate the adjusted off-site renewable energy procurement (RE_{offsite}):

- List the annual production (RE_i) quantities for each type of off-site renewable energy system procurement used.
- Multiply the annual production quantities by their procurement factor (PF_i) and record the adjusted procurement.\(^4\)
- Calculate the sum of the adjusted procurement and record the total adjusted off-site renewable energy procurement (RE_{offsite}) in the space provided. This number must be equal to or greater than the remaining energy demand (E_{demand}).

\[ RE_{offsite} = \sum_{i=1}^{n} (RE_i \times PF_i) = RE_1 \times PF_1 + RE_2 \times PF_2 + \ldots + RE_n \times PF_n \]

\(^4\) Each jurisdiction provides their own procurement factors. After doing so, remove this footnote.
EXAMPLE CONTRACTS

Here are some example contracts you can use as a guide:

• Community Renewables
  > “Community Solar PPA”
  > “Community Solar Subscription Agreement”
  > Community Solar Subscription Contract

• Power Purchase Agreements
  > PPA Option 2

• Green Retail Tariffs

• RECs Purchase