



BUILD

Building Initiative for Low-Emissions Development Program

BUILD Launch Webinar
June 21st, 2022

Presented by:
BUILD Technical Assistance (TA) Team

Introducing: BUILD



Virtual Housekeeping

- Webinar recording will be shared
- Q&A will be conducted at the end of the presentation



Agenda

Introductions

BUILD Overview

BUILD Incentives

Example BUILD Projects

Program Co-Leveraging

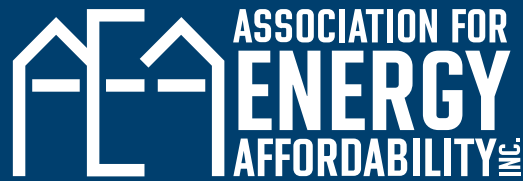
Get Started Today

Resources

Questions

Introductions

BUILD Technical Assistance Team



Presenters



Brandon Faris

Project Manager
TRC Companies



Brianna Moncada

Sustainable Housing
Program Manager
California Housing
Partnership


BUILD

Overview

A modern, multi-story apartment building with a mix of grey, white, and orange accents. The building features large windows with dark frames and several balconies with glass railings. The foreground shows a paved walkway, green shrubs, and a dark metal fence.

BUILD

The Building Initiative
for Low-Emissions
Development (BUILD) Program



BUILD is a residential building decarbonization program that provides incentives and technical assistance to support the adoption of advanced building design and **all-electric** technologies in new, low-income homes.

BUILD makes **clean energy technologies** accessible to affordable housing developments to benefit low-income Californians.

Why Participate in BUILD?



BUILD
Building Initiative for Low Emissions Development Program
Program Fact Sheet

The Building Initiative for Low-Emissions Development (BUILD) Program is a residential building decarbonization program that provides incentives and technical assistance to support the adoption of advanced building design and all-electric technologies in new, low-income all-electric homes.

BUILD encourages adoption of clean energy technologies in affordable housing developments, thereby improving access to clean energy for low-income Californians.

Why Participate in BUILD?

- Receive up to \$2,000,000 in incentives to reduce construction costs
- Reduce long-term utility costs for both you and your residents
- Build your in-house capacity for all-electric building
- Prepare for current and future state and local building electrification policies
- Layer funds with other programs and incentives
- Eliminate costs for gas infrastructure

• Receive up to 300 hours of no-cost technical assistance to overcome design or construction barriers, and to complete an incentive application

\$1,700 Per Bedroom average minimum greenhouse gas incentive

New Adopter Design Award
BUILD provides eligible applicants constructing their first all-electric, low-income multi-family building (15+ units) with up to \$100,000 design award to offset direct design costs.

Incentives
BUILD provides robust incentives consisting of four components:

BASE GHG INCENTIVE Based on GHG emissions avoided	BUILDING EFFICIENCY Based on a percentage above Code
INCREMENTAL PV Offset Tenant Utility Costs	KICKER INCENTIVE For additional GHG reduction technologies
TOTAL INCENTIVE	

\$2,000,000 Program Cap per applicant

FOR QUESTIONS, EMAIL BUILD AT:
BUILD@energy.ca.gov

FOR MORE INFORMATION, VISIT:
www.energy.ca.gov/programs-and-topical-projects/building-reliability-low-emissions-development-program

BUILD Program Fact Sheet

- Receive up to \$2,000,000 in incentives to reduce construction costs
- Receive up to 300 hours of no-cost technical assistance to overcome design or construction barriers, and to complete an incentive application
- Reduce long-term utility costs for both you and your residents
- Build your in-house capacity for all-electric design and construction
- Prepare for current and future state and local building electrification policies
- Layer funds with other programs and incentives
- Eliminate costs for gas infrastructure

Who Is Eligible?

Building owners or developers of low-income housing with:

5

YEARS

of development
experience

+

≥ 1

COMPLETED

low-income
project

What Projects Are Eligible?

- Low-income residential housing (single-family and multifamily) with income restrictions varying depending on project location and type of housing
- All-electric and no hookups to the gas distribution grid
- Demonstrate modeled resident utility cost savings
- Project located in one of four IOU gas service territories:
 - Southern California Gas
 - Pacific Gas & Electric
 - San Diego Gas & Electric
 - Southwest Gas Corporation

All energy models submitted for BUILD must be completed by a Certified Energy Analyst

Low-Income Residential Housing Income Limit Requirements



SINGLE-FAMILY LOW-INCOME REQUIREMENTS

- Low-income residence, sold at an affordable housing cost to a lower-income household that is subject to a resale restriction or equity-sharing agreement for which the homeowner does not receive a greater share of equity.



MULTIFAMILY LOW-INCOME REQUIREMENTS

Must meet one or more of the following conditions:

- The property is in a disadvantaged community(DAC) and is consistent with the income requirements of the affordable multifamily financing source.
- The property is in a low-income community in which at least 50 percent of households have an income less than 60 percent of the area median income and is consistent with the income requirements of the affordable multifamily financing source.
- At least 80 percent of the households living in the building have incomes at or below 60 percent of the area median income.

What Building Types Are Eligible?

ELIGIBLE RESIDENTIAL BUILDINGS

- Newly constructed buildings
- Existing buildings repurposed for housing
- Building additions or renovations where 50% or more of the exterior weight bearing walls are removed or demolished

ELIGIBLE BUILDING TYPES

- Single-family homes
- Duplexes/triplexes/quadplexes
- Multifamily apartments
- Condominiums
- Dormitories
- Residence hotels
- Assisted living facilities
- Homeless/transitional housing
- Farmworker housing
- Mixed-use buildings

New Adopter Design Award

The BUILD program provides a design award up to \$100,000 to defray direct design costs to eligible applicants who are constructing their first:

- all-electric,
- low-income, and
- multifamily building (10+ units)

\$100,000

Design Award
per applicant
to defray direct design costs

Free Technical Assistance Services

- Educational resources on all-electric building design and technologies
- Support throughout all development phases (including building design, construction, installing near-zero emission technologies) and information on local building permits
- Assistance with submission of BUILD Incentive Application package and participation support

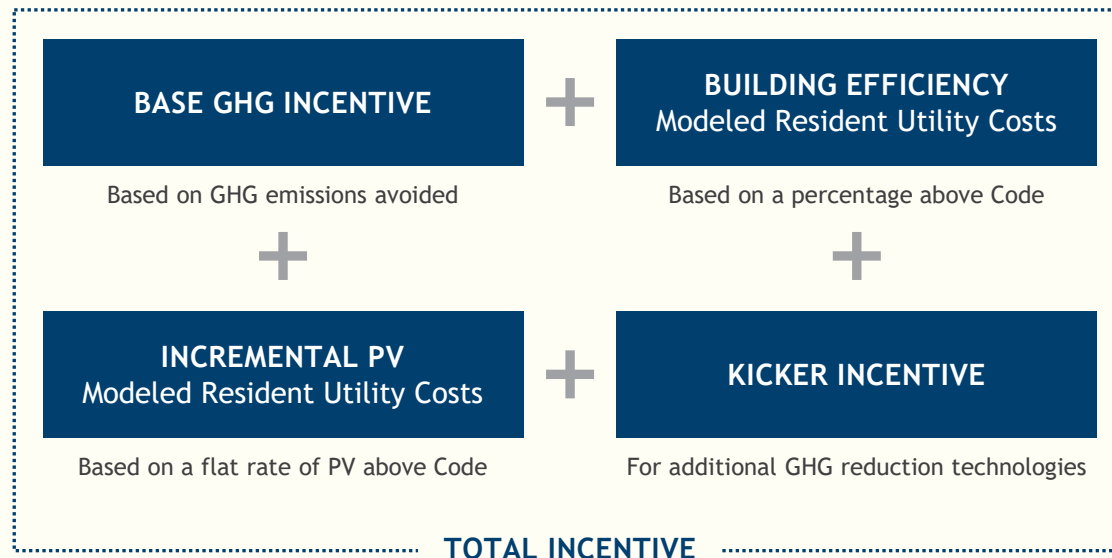


BUILD

Incentives

Incentives

BUILD provides robust incentives consisting of four components:



\$1,700

Per Bedroom

average minimum greenhouse gas incentive

\$2,000,000

Program Cap

per applicant

How Incentives are Calculated

BASE GHG INCENTIVE

— A flat rate of \$150/metric ton (MT) of total annual avoided GHG emissions, multiplied by the 30-year effective life of the building.

BUILDING EFFICIENCY Modeled Resident Utility Costs

— Eligible for up to \$1,000 per bedroom. Based on a sliding scale of the compliance margin from 0% to 10%.

INCREMENTAL PV Modeled Resident Utility Costs

— \$1.30/watt (W) for single-family and low-rise multifamily*
— \$3.00/watt (W) for mid-rise and high-rise multifamily*

*The program will not offer incentives for PV required by the Energy Code, or for PV installation beyond what is needed to address the modeled resident utility costs requirement for the project.

Kicker Incentives



GRID FLEXIBILITY

\$50/ smart thermostat and \$500/JA13-compliant HPWH



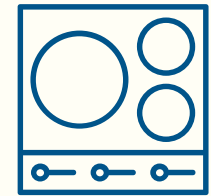
GWP REFRIGERANTS <750

\$500/lb of refrigerant



GWP REFRIGERANTS <150

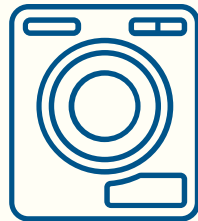
\$1,500/lb of refrigerant



INDUCTION COOKTOP

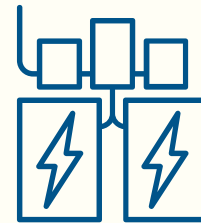
\$300/ induction cooktop unit

**KICKER
INCENTIVES**



HEAT PUMP CLOTHES DRYER

\$150/ heat pump clothes dryer



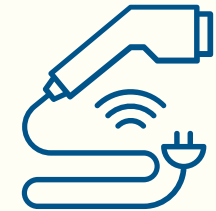
ON-SITE ENERGY STORAGE

\$250/kWh storage capacity



ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE)

\$200/ EVSE (single family) and \$300/ EVSE (multifamily) or \$1000/ EVSE (Bi-Directional)



SMART ELECTRIC VEHICLE SUPPLY EQUIPMENT

\$500/ EVSE (single family) and \$600/ EVSE (multifamily)

Modeled Utility Cost Savings

BUILD requires the design must result in a 5% modeled resident utility cost savings

- Utility cost savings will vary by climate and utility territory

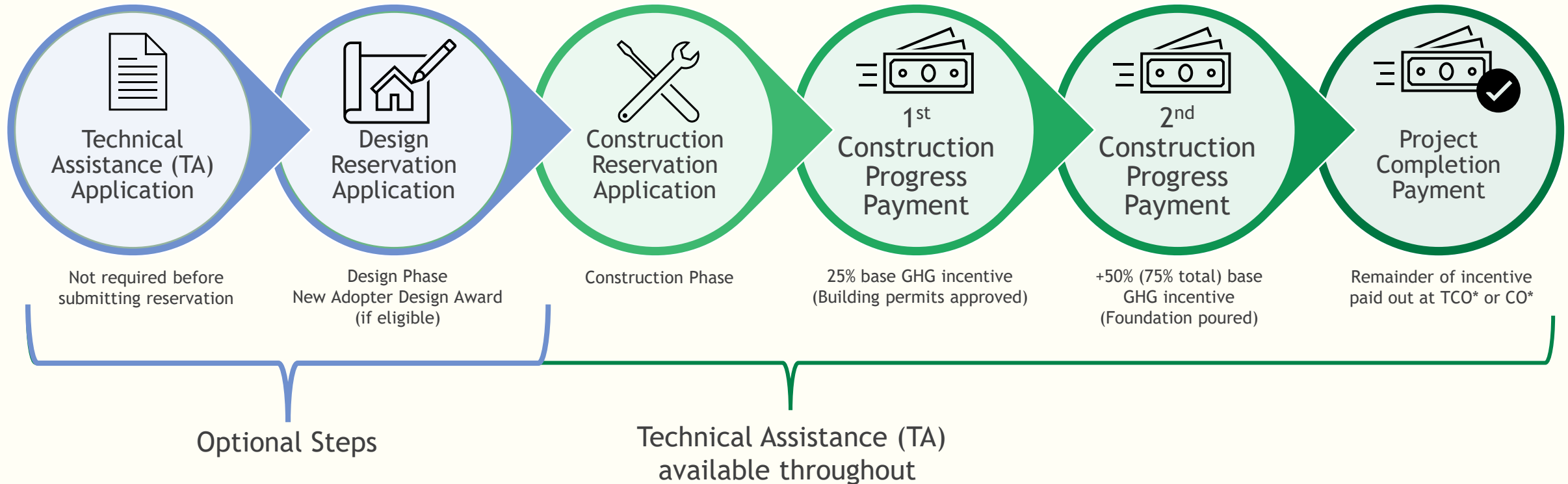
Considerations:

- Improving building envelope
- High-performance equipment efficiencies
- Allocating additional solar PV to the residents



The Technical Assistance team is here to support your development in meeting this requirement.

Program Participation Roadmap



Example BUILD Projects

Example High-rise Multifamily

PROJECT DESCRIPTION

Total sqft: 68,525

of buildings: 1

of stories: 4

of units: 100

of bedrooms: 119

% above code: 8.7%

KICKERS

of Smart Thermostats: 119



GHG Base Incentive (Over 30 Years):

$71 \text{ MT} * \$150/\text{MT} = \$10,650/\text{Year} * 30/\text{Years} = \$319,500$



Increased Building Efficiency Incentive (up to \$1,000/bedroom):

$8.7\% = \$870 * 119 \text{ bedrooms} = \$103,530$



Incremental PV Incentive (\$3 per watt)*:

$5.75 \text{ kW DC} * \$3.00/\text{W} = \$17,250$



Total Kicker Incentive:

$119 \text{ Smart Thermostats} * \$50/\text{unit} = \$5,950$

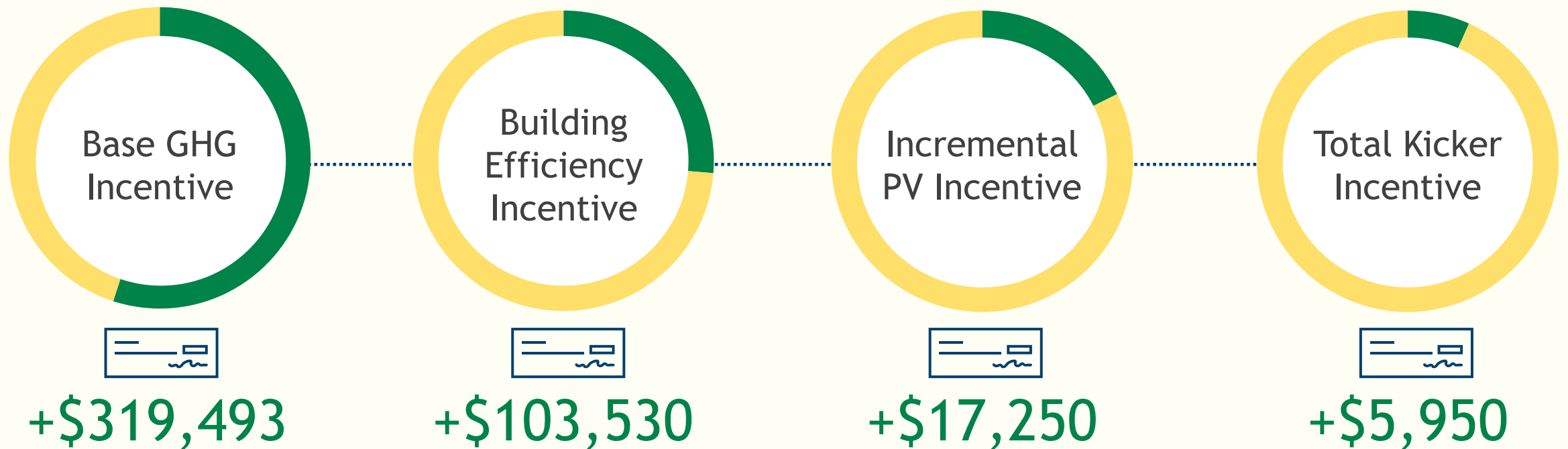


Total BUILD Incentive:

$\$446,230 / \$3,750 \text{ per bedroom}$



Example High-rise Multifamily Incentives



Example Low-rise Multifamily

PROJECT DESCRIPTION

Total sqft: 51,802
Total # of buildings: 7
Total # of stories: 2/3
Total # of units: 72
Total # of bedrooms: 106
Average % above code: 8.3%

KICKERS

None



Total GHG Base Incentive (Over 30 Years):
 $42.22 \text{ MT} * \$150/\text{MT} = \$6,333/\text{Year} * 30/\text{Years} = \$189,990$



Increased Building Efficiency Incentive (up to \$1,000/bedroom):
 $\sim 8.3\% = \$830 * 106 \text{ bedrooms} = \$87,980$



Incremental PV Incentive (\$1.30 per watt)*:
 $1.29 \text{ kW DC} * \$1.30/\text{W} = \$1,676$



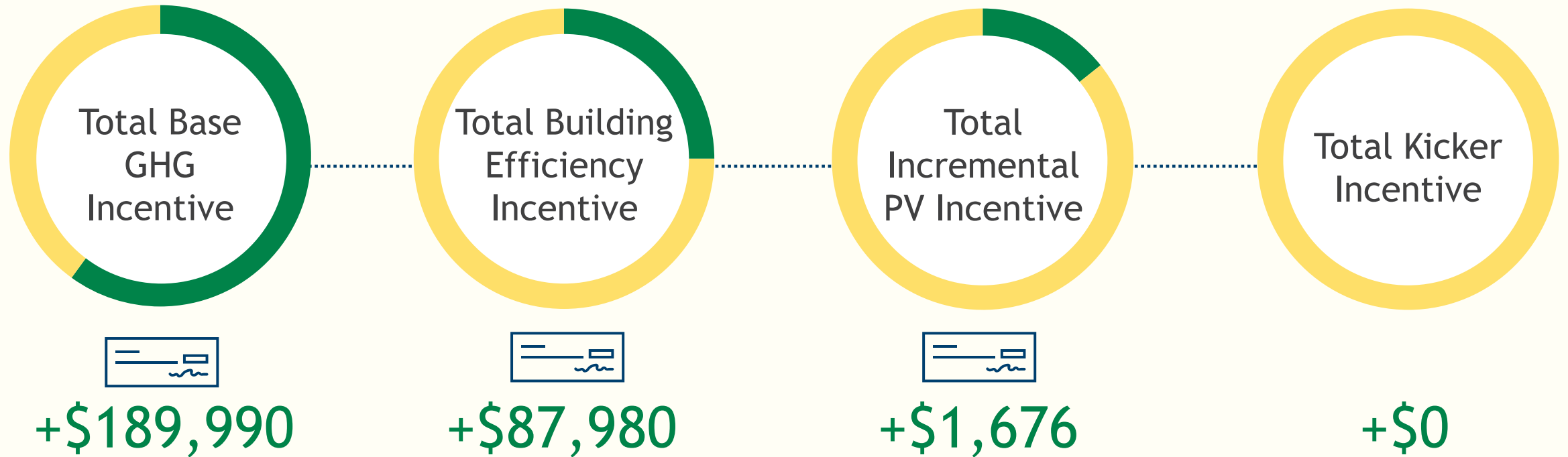
Total Kicker Incentive:
No Kicker elected = \$0



Total BUILD Incentive:
\$279,646 for all buildings / \$2,638 per bedroom



Example Low-rise Multifamily Incentives



Total Incentive (All Buildings)*: \$279,646 / \$2,638 per bedroom

*Incentives presented based on an average of all buildings

Program Co-Leveraging

Co-leveraging Opportunities

RESIDENTIAL BUILDINGS	AFFORDABLE HOUSING, PUBLIC FUNDING PROGRAMS	CLEAN ENERGY PROGRAMS BY STATE AND UTILITIES
Single-family to quadplex homes	TBD	CAEATFA, CA Energy-Smart Homes, and other programs where eligible
Multifamily Apartments	TCAC, CDLAC, HCD, CalHFA, HUD, USDA, and local programs	CEDA, CA Energy-Smart Homes, and other programs where eligible

- For some co-leveraging opportunities program eligibility will depend on the residential building type, whether the BUILD project is a new construction, substantial renovation, reuse development, and where the project is located.
- BUILD cannot layer with any cap-and-trade programs for the same equipment /design elements (e.g., Solar PV).

Layering Example (Low-rise Multifamily)



BUILD

Building Initiative for Low-Emissions Development Program



Total GHG Base Incentive = \$189,990

Increased Building Efficiency Incentive = \$87,980

Incremental PV Incentive = \$1,676

Total Kicker Incentive = \$0

Total BUILD Incentive = \$279,646

Total Unit Incentive* = \$129,600

Average Efficiency EDR Incentive = \$5,480.00

Total Energy Smart Homes Incentive = \$135,080.00

Total Layered Incentives: **\$414,726.00**

Get Started Today

BUILD Website

Building Initiative for Low-Emissions Development Program | California Energy Commission

The screenshot shows the website's header with the California Energy Commission logo and navigation menu. The main content area features a large blue banner with the program title. Below the banner is a descriptive paragraph about the program's purpose. On the right side, there are two yellow boxes: 'CONTACT' with a link to the BUILD Program, and 'RELATED LINKS' with a link to the Docket Log (20-DECARB-01). A footer bar at the bottom contains information about technical assistance and incentive applications.

CA CGOV Share: f t in e About Careers Contact Events Newsroom Resources Translate Settings

CALIFORNIA ENERGY COMMISSION

Enter keywords, e.g. Tracking Progress

HOME PROCEEDINGS RULES AND REGULATIONS PROGRAMS AND TOPICS FUNDING DATA AND REPORTS SHOWCASE

California Energy Commission > Programs and Topics > All Programs > Building Initiative for Low-Emissions Development Program

Building Initiative for Low-Emissions Development Program

The Building Initiative for Low-Emissions Development (BUILD) Program is designed to provide technical assistance and incentives for new all-electric low-income residential buildings that reduce GHG emissions.

CONTACT
[BUILD Program](#)

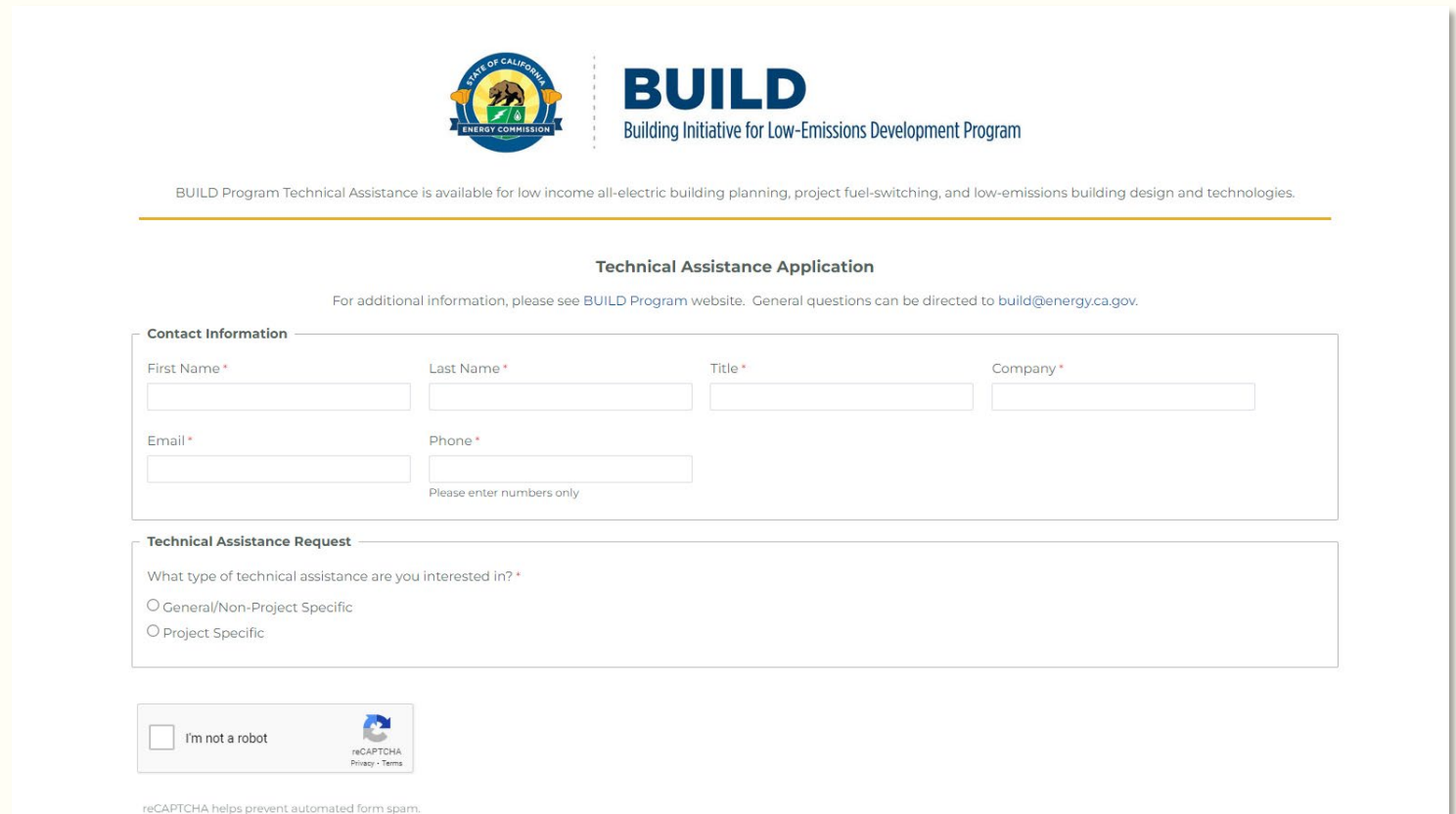
RELATED LINKS
[Docket Log \(20-DECARB-01\)](#)

BUILD technical assistance and incentive applications are now being accepted. See the BUILD fact sheet for a brief

How to Apply for Technical Assistance

Technical Assistance Application

Technical assistance is highly recommended. Application assistance is included!



The screenshot displays the 'BUILD' program website header, including the State of California Energy Commission logo and the 'BUILD' logo. Below the header, a paragraph states: 'BUILD Program Technical Assistance is available for low income all-electric building planning, project fuel-switching, and low-emissions building design and technologies.' The main heading is 'Technical Assistance Application', followed by a note: 'For additional information, please see BUILD Program website. General questions can be directed to build@energy.ca.gov.' The form is divided into two sections: 'Contact Information' and 'Technical Assistance Request'. The 'Contact Information' section contains input fields for First Name, Last Name, Title, Company, Email, and Phone. The 'Technical Assistance Request' section contains a question: 'What type of technical assistance are you interested in?' with two radio button options: 'General/Non-Project Specific' and 'Project Specific'. At the bottom, there is a reCAPTCHA 'I'm not a robot' checkbox and a reCAPTCHA logo with links for 'Privacy' and 'Terms'. A small note at the very bottom reads: 'reCAPTCHA helps prevent automated form spam.'

STATE OF CALIFORNIA
ENERGY COMMISSION

BUILD
Building Initiative for Low-Emissions Development Program

BUILD Program Technical Assistance is available for low income all-electric building planning, project fuel-switching, and low-emissions building design and technologies.

Technical Assistance Application

For additional information, please see BUILD Program website. General questions can be directed to build@energy.ca.gov.

Contact Information

First Name * Last Name * Title * Company *

Email * Phone *

Please enter numbers only

Technical Assistance Request

What type of technical assistance are you interested in? *

General/Non-Project Specific

Project Specific

I'm not a robot

reCAPTCHA
Privacy · Terms

reCAPTCHA helps prevent automated form spam.

BUILD Incentive Documents

Design Application (18-month reservation)

- Attestation
- Supplemental Application Narrative
- Energy Model/Simple Calculator
- CF1R-PRF-01E/NRCC-PRF-01-E
- Payee Data Record (STD204)
- CalEnviroScreen 3.0 Score for DAC
- (If Eligible for New Adopter Design Award) paid invoice also required

Construction Application (36-month reservation)

- (Updated) Attestation
- (Updated) Supplemental Application Narrative
- Energy Model
- CF1R-PRF-01E/NRCC-PRF-01-E
- Payee Data Record (STD204)
- CalEnviroScreen 3.0 Score for DAC
- Approved building permit
- Evidence of affordable housing financing source

Project Completion

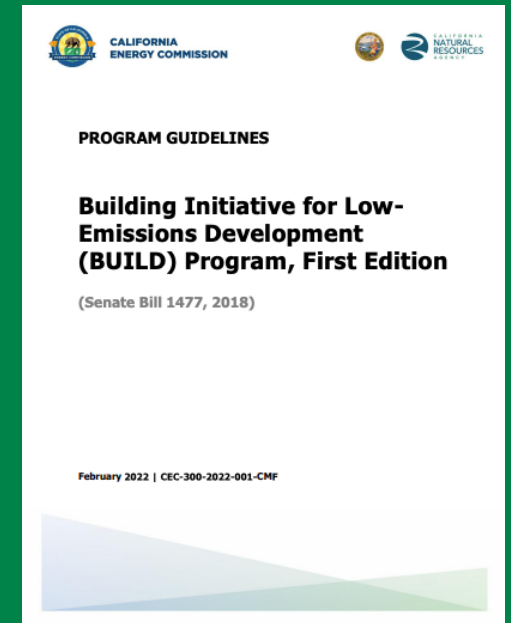
- TCO or CO
- Recorded deed restriction or regulatory agreement
- Demonstration of Modeled Resident Utility Cost Savings.
- Final Energy Model
- Completed CF2R, CF3R or NRCI, and NRCV
- Additional project-specific documentation

Resources

Program Guidelines

Visit www.energy.ca.gov/programs-and-topics/programs/building-initiative-low-emissions-development-program to review BUILD Program Guidelines for full details on program eligibility and requirements.

BUILD is administered by the California Energy Commission in collaboration with the California Public Utilities Commission. It is authorized by Senate Bill 1477 (2018, Stern) and funded by the four California gas corporations apportioned according to each gas corporation's percentage share of allocated Cap-and-Trade Program allowances. Reservations are approved on a first come, first served basis, and regional funding availability is based on the utilities' contribution to the program.



BUILD Program Guidelines

>Apply Today

FREE TECHNICAL ASSISTANCE:

<https://www.tfaforms.com/4945354>

FOR MORE INFORMATION, VISIT:

<http://www.energy.ca.gov/programs-and-topics/programs/building-initiative-low-emissions-development-program>

Thank you.

Any questions?



BUILD

Building Initiative for Low-Emissions Development Program