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## Electrifying Encinitas

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## Electrifying Encinitas

San Diego Regional Climate Collaborative

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Enabling Regional Leadership  
& Science-Based Action



## City of Encinitas Green Building Ordinance

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Reach Codes

## Energy Education & Resource Hub

### Abstract

Advancing the San Diego region’s resilience to climate change impacts within the nexus of social, environmental, and economic prosperity is a top priority for local planning and efforts. As the region continues to face impacts on quality of life from climate change, the City of Encinitas is taking action to respond by leading efforts of energy resilience with their recently passed Green Building Ordinance (Ordinance). The Ordinance requires all new residential and non-residential buildings constructed in Encinitas to be “all-electric” unless an exception applies.<sup>1</sup> As the San Diego region moves towards decarbonizing, Encinitas is the first city to mandate building electrification for virtually all new construction - advancing local climate action planning and setting an example for others.

# What is Building Electrification and Why Does it Matter?

To provide the City with a roadmap for reducing Greenhouse Gas (GHG) emissions, Encinitas adopted and has since updated a Climate Action Plan (CAP) which includes various strategies, goals, and measures. The CAP includes seven overarching strategies and associated goals for the City to reduce its GHG emissions by an ambitious target of 44% below 2012 levels by 2030.<sup>2</sup> One of these strategies focuses on building efficiency as 39% of Encinitas' GHG emissions come from the City's building stock, making it the second-largest contributor to the City's annual greenhouse gas (GHG) emission output.<sup>3</sup> Encinitas's building electrification ordinance (Green Building Ordinance/Ordinance) was successfully passed in 2021 and directly supported the City to reach CAP goals and GHG emission reduction targets.

Building electrification is the process of shifting to the use of electricity exclusively rather than the process of direct fossil fuel combustion, such as natural gas for building operations like heating and cooking.<sup>4</sup> According to the Ordinance, an all-electric building is defined as a [building] "that has no natural gas or propane plumbing installed within the building, there is no gas meter connection, and [one] that uses electricity as the source of energy for its space heating, water heating, cooking appliances, and clothes drying appliances".<sup>5</sup> The Ordinance enables higher standards for Encinitas residents and visitors' public health as natural gas combustion for building operations such as cooking and heating has been proven to be a threat to human health. Natural gas emits harmful pollutants, such as methane gas and carbon dioxide, which both cause an increase in human respiratory disease and negatively affect indoor air quality. Nearly 4-million people globally die prematurely from household pollution.<sup>6</sup> On a regional scale, building electrification signals the future of the built environment as it provides a tangible solution to holistically reach local climate action goals.

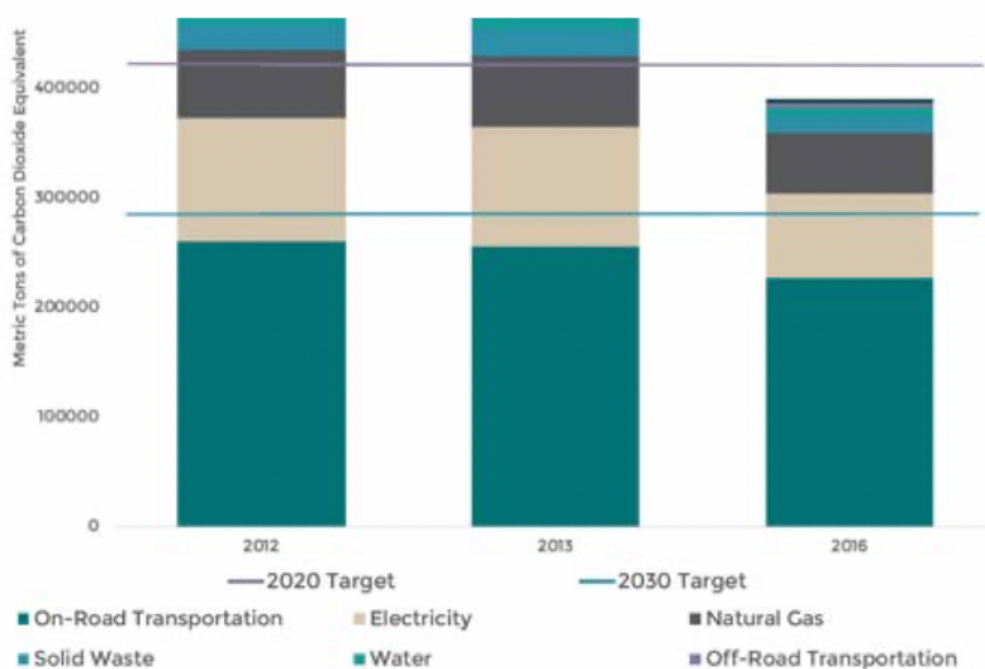


Figure 3. 2016 Greenhouse Gas Emissions Inventories by Year

# The City of Encinitas and All-Electric Buildings

The City's capacity to electrify its building stock expanded when Encinitas adopted the [Sixth Cycle Housing Element \(2021-2029\)](#) in April 2021. As a response to the increase in housing units, the City of Encinitas Environmental Commission formally recommended that City Council include a proposed building electrification requirement as a measure to be added in the 2020 CAP update. Including this measure in the 2020 CAP enabled a clear policy pathway for staff to begin implementing the Ordinance and require all new residential and non-residential buildings constructed in Encinitas to be "all-electric", unless an exception applies. This Ordinance is the first of its kind in the San Diego region to mandate building electrification.

The first-drafted Encinitas Building Electrification Ordinance had numerous exceptions for buildings and businesses to not have to comply with regulations. After extensive technical analysis and a robust engagement process convening developers, nearly all exceptions were eliminated by Council. Just a few exceptions were left in the Ordinance for essential buildings and restaurants that require gas cooking. The final exception left by Council in the Ordinance was to allow a building to be non-compliant with the Ordinance if significant costs on the utility side of the meter were required to do all-electric upgrades, however, Encinitas staff expects none of these will be triggered often.

Overall, the Ordinance was made extremely clear, and ultimately more effective to reduce greenhouse gas emission with these limited exceptions in place – all new construction has to be all electric. With California's climate action agenda pushing cities statewide to develop ordinances that eliminate gas infrastructure in new buildings, this ascension accelerates Encinitas' transition to have all buildings be all electric to meet the City's CAP goals.



# ADVICE & LESSONS LEARNED

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01

**Collaboration** - Encinitas was able to collaborate with Bay Area cities that had already undergone the process of passing an all-electric building ordinance and operationalize these best practices on a local scale. With 40 other cities and counties throughout California implementing energy ordinances that transition a gas-centered electric system to a clean, electric generation of energy, Encinitas is raising the profile of regional leadership in the space of energy resilience and statewide climate action.<sup>7</sup>

02

**Timing** -The timing of a reach code is tough to get right. A reach code adoption should match the triennial year energy code cycle as reach codes need to be readopted in each California Energy Code cycle.

03

**Adoption** - It is necessary for a city to adopt an ordinance to establish a reach code. During this process, it is crucial to have a governing body collaborate closely with city staff to provide direction on how to go about adopting the reach code.

04

**Public Outreach** - To ensure there was effective community input during the process, a Stakeholder Committee was developed to further evaluate the proposed draft Ordinance and provide input. To be inclusive of citywide stakeholder voices, City staff made sure to reach out to those outside the sustainability sector - such as residents, developers, and property owners.

05

**Implementation** - The implementation and enforcement of a reach code are just as important, if not more than the development of a reach code - the work doesn't stop when adoption occurs.

06

**Regenerative Processes** - The second time around when adopting a reach code ordinance it is a more straightforward process. With the City Council needing to approve the reach code's adoption, along with waiting for state approval from the California Energy Commission (CEC), it is better to start early in the code cycle.

07

**Resources** - Use the training, checklists, and factsheets available. These training and supportive materials are available on the Energy Code Ace website and the Local Energy Codes website. The San Diego Regional Climate Collaborative's Energy Hub streamlines the process of reach code adoption by including these resources in a single, one-stop shop to support local jurisdictions reach their target GHG emission reductions.



## Looking Towards the Future

The City of Encinitas is now working on defining new construction. More specifically, when an existing building is substantially remodeled, Encinitas is looking to define when the remodeled building is considered “new” construction based on the percentage of the building’s exterior walls being demolished, or the percentage of the building’s roof being replaced. Once this threshold is defined by the City more buildings will be subject to compliance with the Ordinance.

The City’s priority to advance energy resilience through building electrification is also supported by Encinitas being a member of San Diego Community Power (SDCP). SDCP is a locally run, not-for-profit public agency that is an electric generation service provider through a Community Choice Aggregation (CCA) program. CCAs give residents and businesses an opportunity to choose who will purchase energy on their behalf, an example being either the CCA or a private utility company. A larger factor in this decision for many when approaching climate action goals is the renewable energy content of their electricity portfolio. SDCP purchases renewable power, like solar and wind, and feeds it into the electricity grid, working with SDG&E to deliver it to its member cities.<sup>8</sup> The City of Encinitas' residents are being enlisted in SDCP's 100% renewable energy service beginning in April 2022. Being a member of SDCP creates an opportunity for the City to be a regional leader in the space of building electrification by allowing buildings to reach zero-emission energy output.



**With regional replication and intentional implementation of reach codes like the City of Encinitas's Green Building Ordinance, the future of the built environment provides a tangible solution to holistically reach local and statewide climate action goals.**



# The City of Encinitas Green Building Ordinance Resources, Public Meetings & Workshops:

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## The City of Encinitas Green Building Ordinance Public Meetings & Workshops<sup>9</sup>:

- [Public Meeting for Proposed Ordinance 2020-04 Presentation - June 15, 2020](#)
- [Green Building Public Workshop #1 Draft Ordinance - February 25, 2021](#)
- [Green Building Public Workshop #2 Video - May 11, 2021](#)
- Environmental Commission Meeting recording is available [here](#).

## Cost-Effectiveness Studies included in the Ordinance<sup>10</sup>:

- [Non-Residential Solar PV & Energy Efficiency CES](#)
- [Residential Energy Efficiency CES](#)
- [New Residential All-Electric CES](#)
- [New Non-Residential All-Electric CES](#)

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