

South Bay Cities Building Energy Benchmarking

**Energy Management Working Group
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Presented by:

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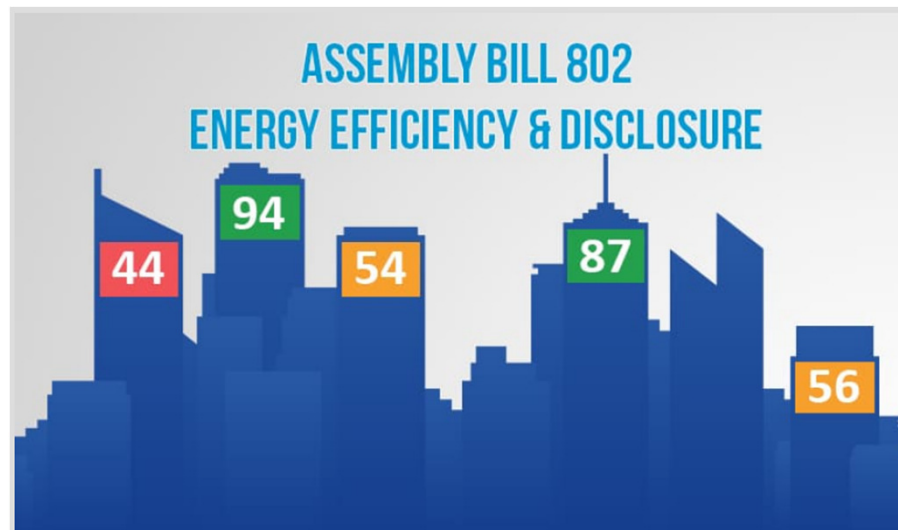
Contract Energy Engineer
GSE Solutions



This work is funded by California utility customers and administered by Southern California Edison and Southern California Gas under the auspices of the California Public Utilities Commission.

What is Energy Benchmarking?

- Process of comparing energy performance of similar buildings.



- CA AB-802 mandates all commercial buildings >50k sq-ft energy benchmark annually and report to state.
 - Requires utilities to provide owners with whole-building data

How to Energy Benchmark?

- EPA Energy Star Portfolio Manager - <https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>

Data Collected for All Properties

- Property Name
- Property Address
- Total [Gross Floor Area](#) of Property
- [Irrigated Area](#)
- [Year Built/Planned for Construction Completion](#)
- [Occupancy](#)
- Number of Buildings
- 12 consecutive months of energy data

Additional Data Collected for **Office**

The following information is **required** to get an ENERGY STAR score ([if eligible](#)):

- [Gross Floor Area](#)
- [Weekly Operating Hours](#)
- [Number of Workers on Main Shift](#)
- [Number of Computers](#)
- [Percent That Can Be Cooled](#)

The following information is **optional** and not used to calculate a score; it may inform future analysis and score revisions by EPA and/or may help you manage and compare your properties:

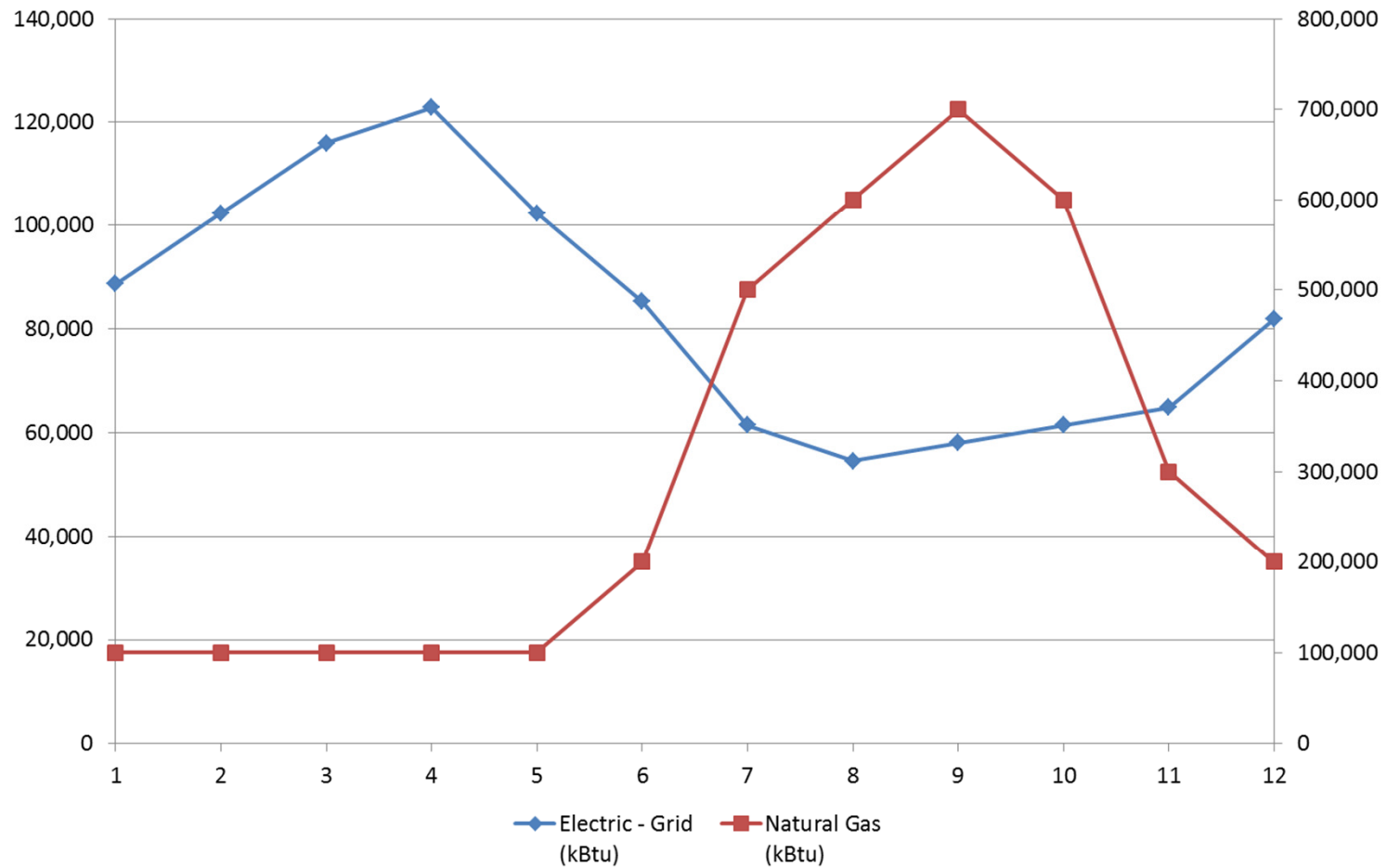
- [Percent That Can Be Heated](#)

Energy Benchmark Scoring

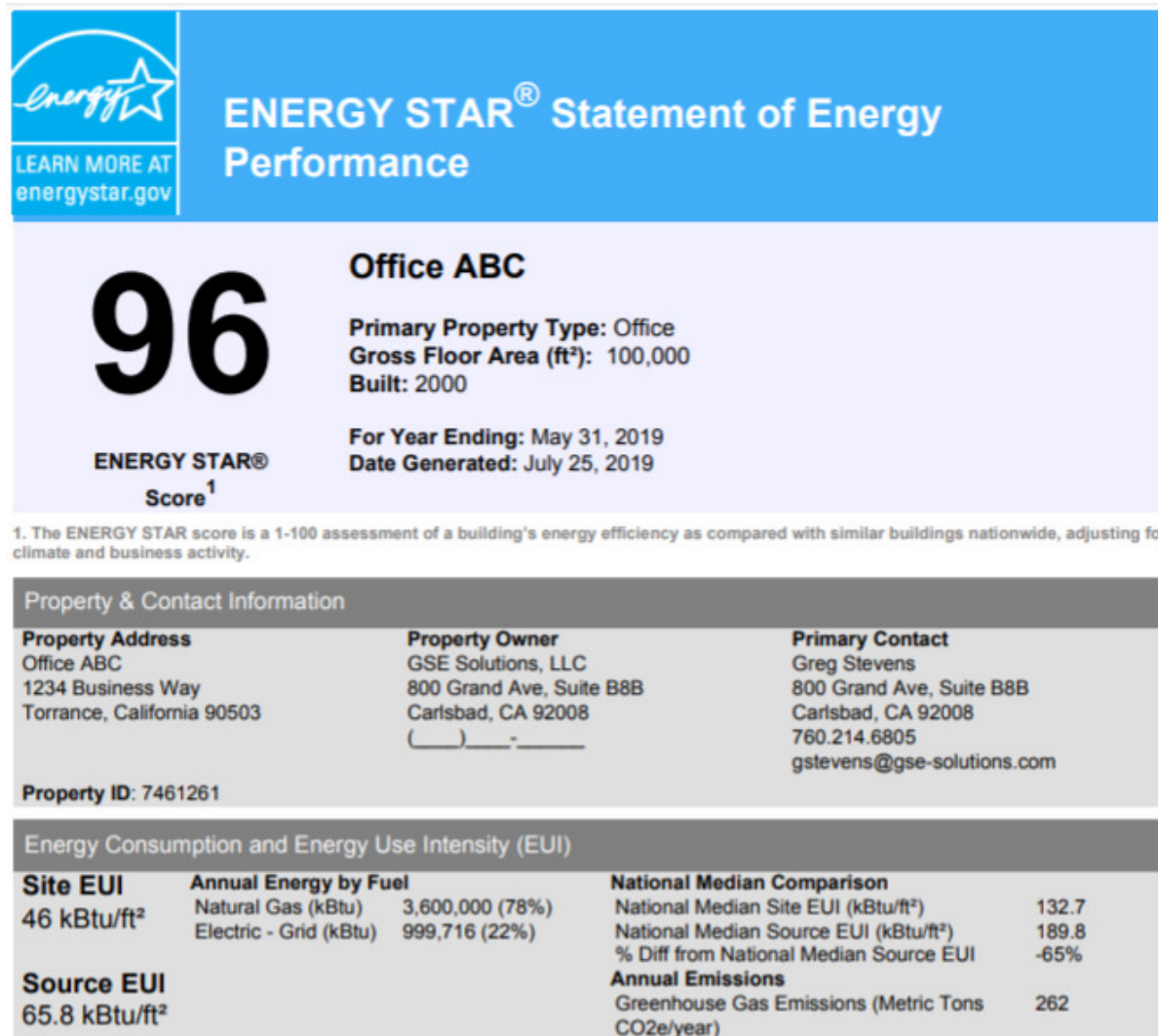
- Benchmark score is a high level indicator of how your building is performing.
- 1-100 scale
 - **1** represents worst performing
 - **100** represents best performing
 - **50** indicates average performing
 - **75** may be eligible for ENERGY STAR Certification
- On average, ENERGY STAR certified buildings use 35% less energy than typical buildings nationwide.

Energy Benchmark Results

Office ABC
Electric and Natural Gas Consumption



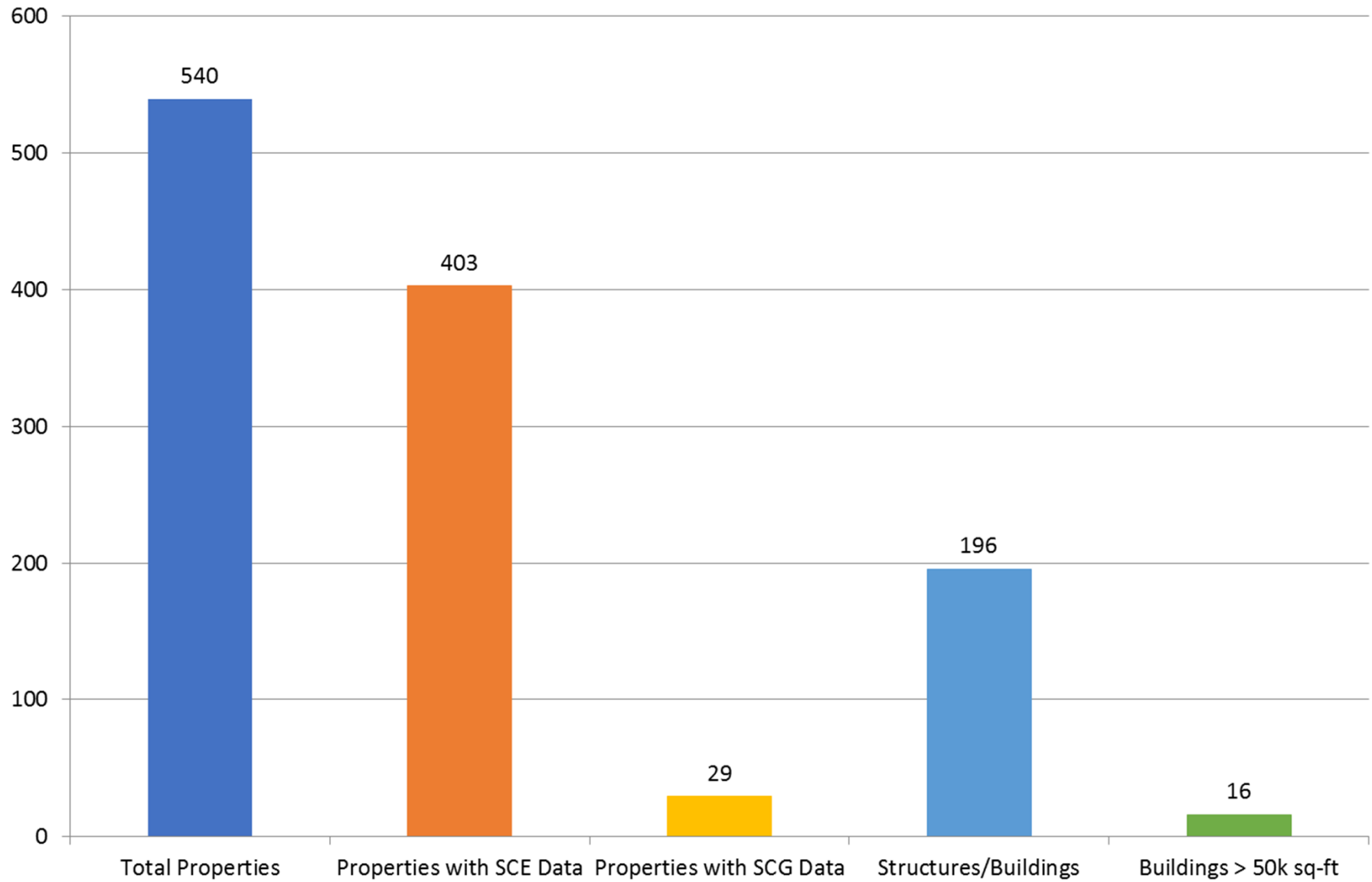
Energy Benchmark Results



SBCCOG Benchmarking Support

- 2019 Benchmarked (6) buildings
 - Carson (2)
 - Torrance (4)
- Over 500 accounts built out in EPA ESPM
- Monthly utility data flowing 400+ accounts
- Next reporting deadline June 1, 2020.

South Bay Cities Property Stats



Buildings > 50k sq-ft

Large Properties	Address	City	SF
Carson - Community Center	801 E CARSON ST	Carson	74,987
Carson - Corporate Yard	DOMINGUEZ ST	Carson	104,970
El Segundo - City Hall, Fire, PD	350 MAIN ST	El Segundo	71,586
Gardena - City Hall, Fire, PD	1700 W 162ND ST	Gardena	56,900
Gardena - New Transit Building	13999 S WESTERN AVE	Gardena	218,000
Hawthorne - Police Department	12501 HAWTHORNE BLVD	Hawthorne	106,000
Hermosa Beach - Parking Structure	1301 HERMOSA AVE	Hermosa Beach	121,000
Inglewood - Civic Center Library	101 W Manchester Blvd	Inglewood	74,600
Inglewood - Civic Center Offices	1 W Manchester Blvd	Inglewood	222,760
Inglewood - City Services Parking Structure	227 W Ivy Ave	Inglewood	86,983
Manhattan Beach - Police and Fire Station	400 15th St	Manhattan Beach	60,000
Redondo Beach - Civic Center PD & City Hall	401 DIAMOND ST	Redondo Beach	55,650
Torrance - City Hall	3031 Torrance Blvd	Torrance	110,973
Torrance - Civic Center Library	3301 Torrance Blvd	Torrance	54,200
Torrance - Fleet Bldg	20500 Madrona Ave	Torrance	126,100
Torrance - Police Department HQ	3300 CIVIC CENTER DR N	Torrance	74,183

QUESTIONS?

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Visit our SBCCOG energy management website at:
<http://www.southbaycities.org/programs/energy-management>