

IEc

Benefits to DACs and Low-Income Communities from Building Energy Efficiency

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Background

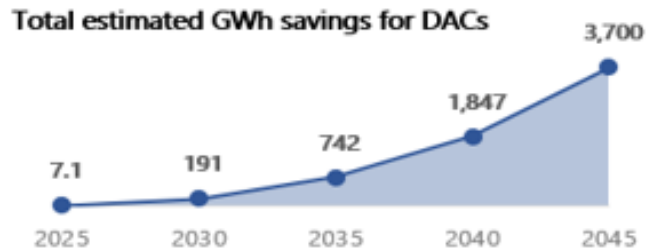
- CEC is required to spend least 25 percent of TD&D funds on projects that are located in and benefit disadvantaged communities (DACs), and 10 percent on projects that benefit low-income communities
- Many of these benefits are particularly important for residents of DACs and low-income communities, who are disproportionately affected by air pollution, and stand to benefit more from reducing electricity and heating costs
- 20% of communities in CA are categorized as both a DAC and low-income community

General Methodology

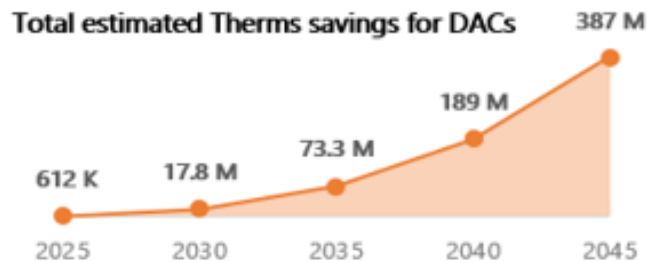
- For energy and on-bill savings, IEc identified three of the 19 technologies that are likely to have market penetration in DACs and low-income communities:
 - EPC-014-010 (Solar Reflective Cool Walls)
 - EPC-16-013 (Smart Ceiling Fans)
 - EPC-18-019 (Low-GWP, High-Efficiency Heat Pump and Air Conditioner)
 - Relevant sectors: Residential and schools
- For health benefits, IEc considered all 19 technologies
- EPIC's contribution to the impacts is not isolated within benefit estimates

Energy Savings

- Energy savings estimates by 2045: 3,700 GWh and 387 Million therms of savings for DACs



GWh	2025	2030	2035	2040	2045
Total	7.1	191	742	1,847	3,700
Residential	7	187	727	1,810	3,625
Schools	0.1	4	15	37	75

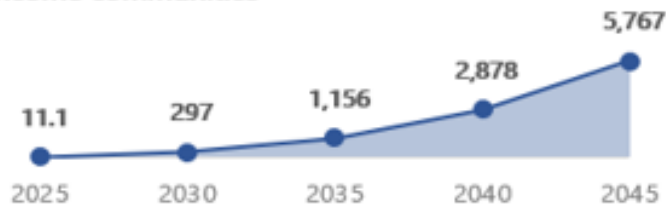


Therms	2025	2030	2035	2040	2045
Total	612 K	17.8 M	73.3 M	189 M	387 M
Residential	606 K	18 M	73 M	188 M	384 M
Schools	5.5 K	163 K	668 K	1.7 M	3.4 M

Energy Savings

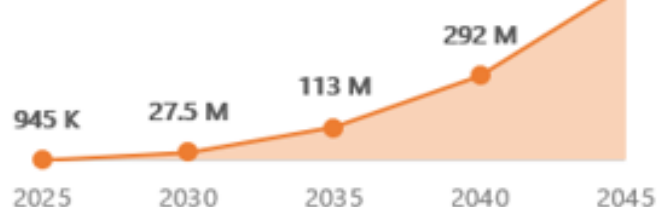
- Energy savings estimates by 2045: 5,767 GWh and 598 Million therms of savings for low-income communities

Total estimated GWh savings for low-income communities



GWh	2025	2030	2035	2040	2045
Total	11.1	297	1,156	2,878	5,767
Residential	11	287	1,114	2,774	5,557
Schools	0.4	11	42	105	210

Total estimated Therms savings for low-income communities

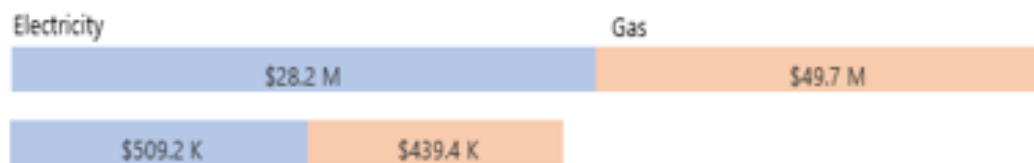


Therms	2025	2030	2035	2040	2045
Total	945 K	27.5 M	113 M	292 M	598 M
Residential	929 K	27 M	111 M	288 M	588 M
Schools	15.4 K	459 K	2 M	4.8 M	9.6 M

On-Bill Savings

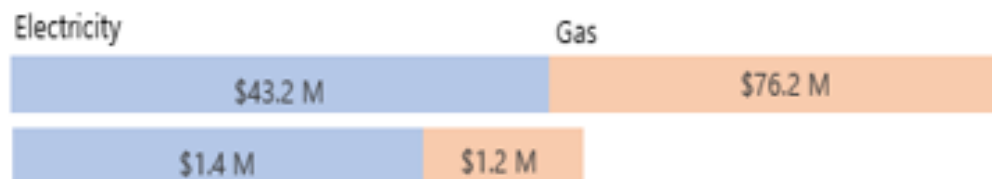
- Total on-bill savings for DACs: **\$78.8 million**

DACs On-bill Savings	Electricity	Gas
Total	\$28.7 M	\$50.1 M
Residential	\$28.2 M	\$49.7 M
Schools	\$509.2 K	\$439.4 K



- Total on-bill savings for low-income communities: **\$122 million**

Low-Income Community On-bill Savings	Electricity	Gas
Total	\$44.6 M	\$77.4 M
Residential	\$43.2 M	\$76.2 M
Schools	\$1.4 M	\$1.2 M



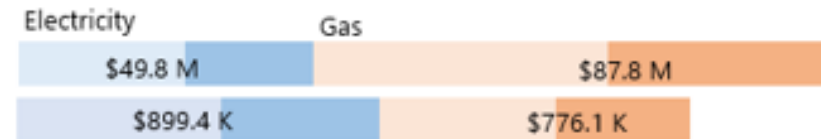
Equity Weighting Background

- Economists have long agreed that the value - **utility** - of a certain amount of money, varies with income
 - i.e., an additional dollar is more “valuable” to someone with less money
- Distributional weights identify the difference in value
 - Can be applied to energy cost savings in low-income households to illustrate the equity effects of energy investments
 - e.g., Savings of \$1 million in Beverly Hills will have an equity value of \$320,000 and savings of \$1 million in Stockton will have an equity value of \$1.9 million
- Weighted benefits are useful as a separate indicator of the societal impact of improving equity

Equity Weighted On-Bill Savings

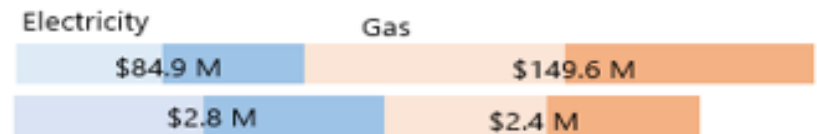
- Total equity weighted on-bill savings for DACs: **\$139 million**

DACs	Electricity: On-bill Savings	Electricity: Equity Weighted On- bill Savings	Gas: On- bill Savings	Gas: Equity Weighted On- bill Savings
Total	\$28.7 M	\$50.7 M	\$50.1 M	\$88.5 M
Residential	\$28.2 M	\$49.8 M	\$49.7 M	\$87.8 M
Schools	\$509.2 K	\$899.4 K	\$439.4 K	\$776.1 K



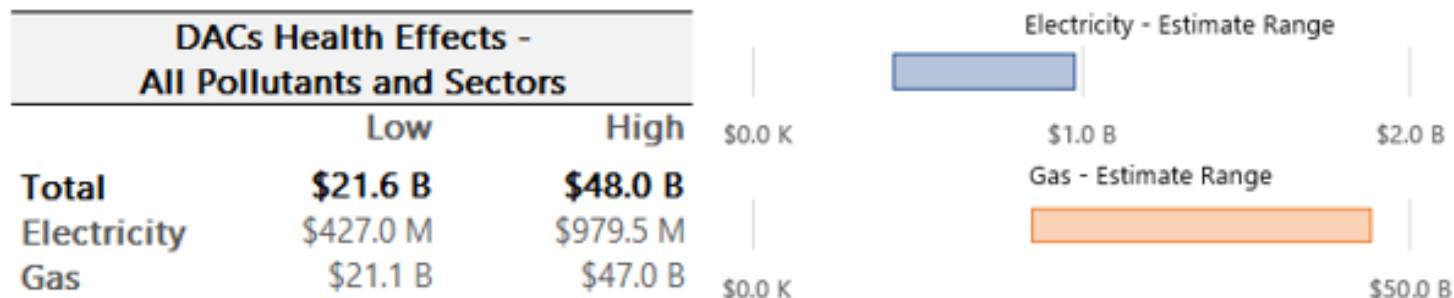
- Total equity weighted on-bill savings for low-income communities: **\$240 million**

Low-Income Communities	Electricity: On-bill Savings	Electricity: Equity Weighted On- bill Savings	Gas: On- bill Savings	Gas: Equity Weighted On- bill Savings
Total	\$44.6 M	\$87.7 M	\$77.4 M	\$152.0 M
Residential	\$43.2 M	\$84.9 M	\$76.2 M	\$149.6 M
Schools	\$1.4 M	\$2.8 M	\$1.2 M	\$2.4 M

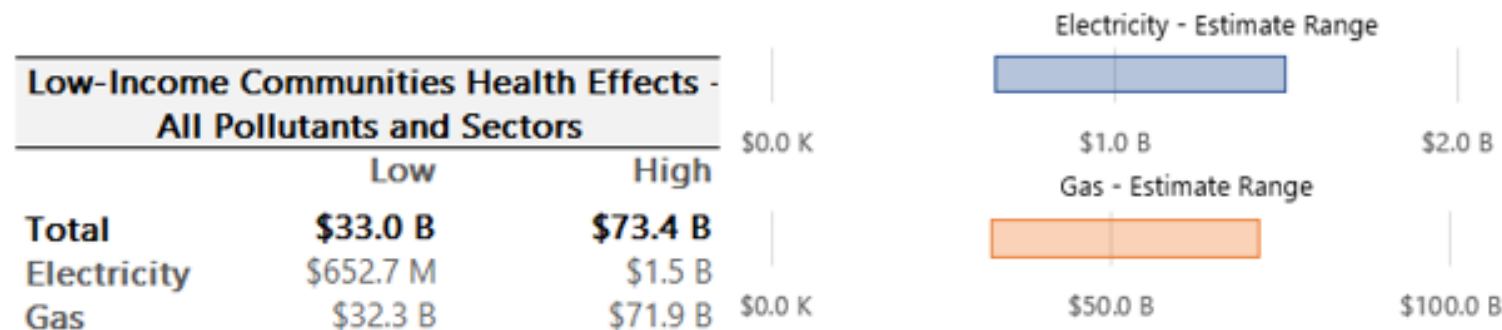


Health Benefits

- Total health benefits for DACs: \$21.6 to \$48 billion



- Total health benefits for low-income communities: \$33 to \$73.4 billion



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