

Energy Generation

Comparing the REGA and Developer's plan

Developer's Plan

- Demand of project: 72,000MWh
- Power Generation: 43,000MWh
- Net: -31,000MWh

Alternative Energy Plan:

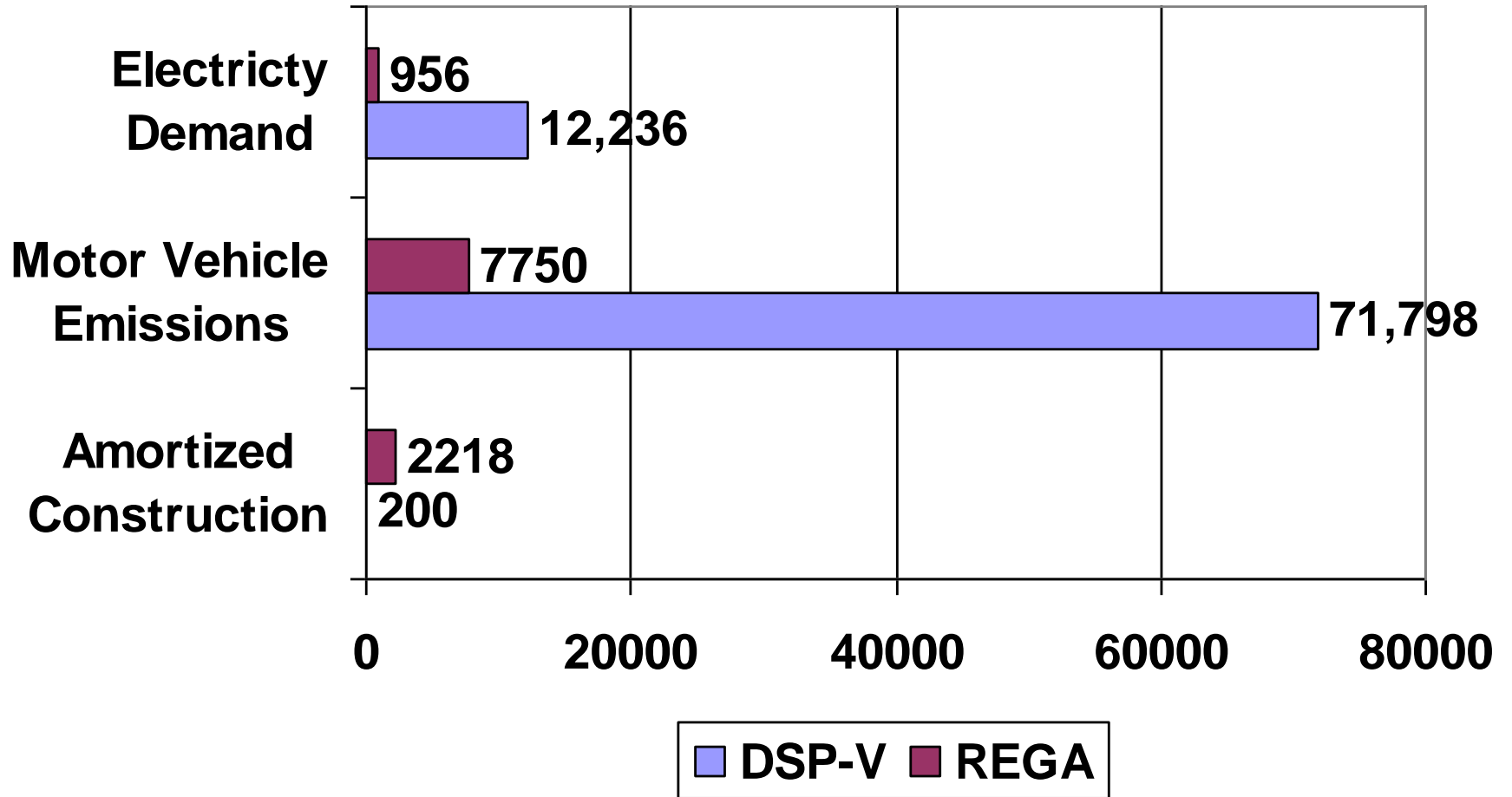
- Demand of Project: 5,800MWh
- Power Generation: 43,000MWh
- Net: +37,00MWh

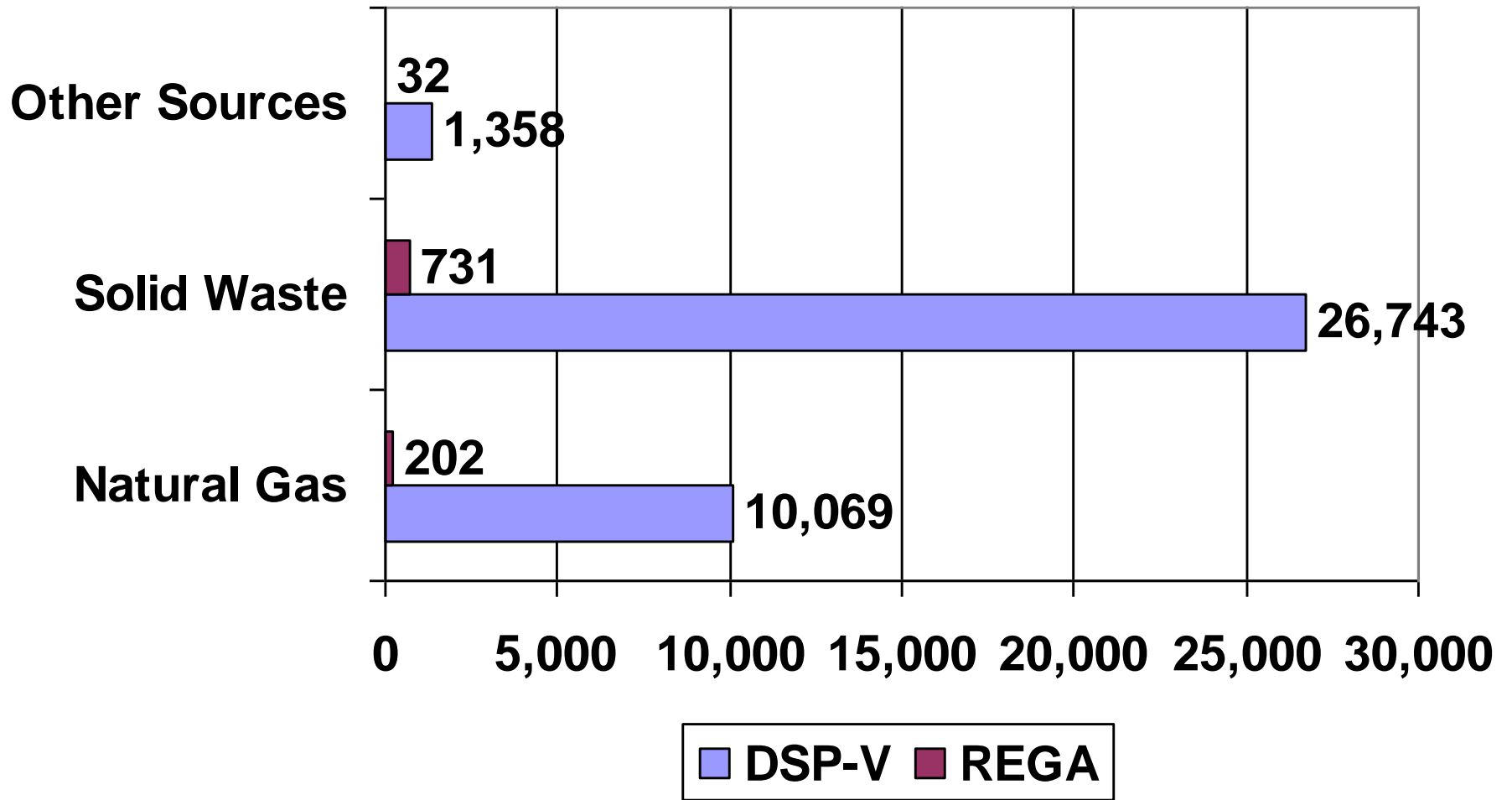
Why is total energy consumption important?

In moving away from fossil fuels, we move towards a system based on electricity. Electrons generated in from a variety of sources are interchangeable.

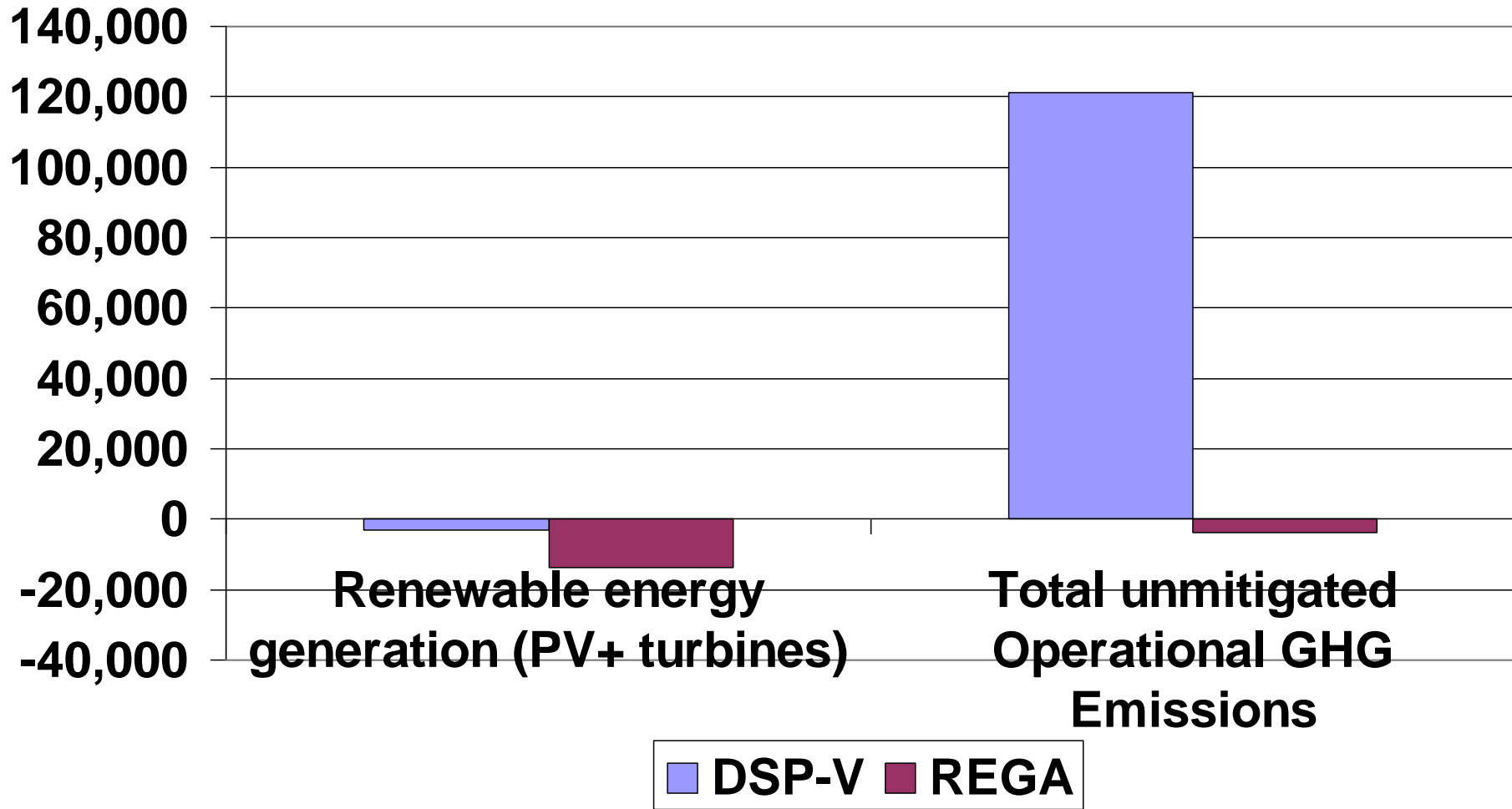
Comparison of Renewable Energy Generation Alternative to DSP-V

While the Planning Commission's recommendation is not identical to the REGA, it is the closest plan for which we have data.





Energy Generated and Net Results



Total unmitigated Operational GHG
Emissions for the REGA: -3,699
-1.4 MT CO₂e per capita

Total unmitigated Operational GHG
Emissions for DSP-V: +121,306
7.5 MT CO₂e per capita

BAAQMD threshold 4.6 MT CO₂e

These numbers have been modified from the original document in the following ways.

- The saving from eliminating the Industrial park have been removed from both projects.
- The magical savings from adding housing from to the DSP-V have been disregarded. Instead the reduction in transportation emissions for a mixed use project is assumed to be 30%.
- Amortized construction CO₂e was added to the REGA model proportional to the amortized construction emission included for the DSP-V.

Barbara Ebel
CC 3/10/17

Data used for comparison of the DSP-V and REGA

REGA [Similar to PC recommendation]

pg 5-36

Construction	200 (0)
Motor Vehicle Trips	7,002
Recology Truck and Vehicle Trips	748
Electricity Demand	956
Natural Gas	202
Solid Waste	731
Other Sources (waste water, area sources)	32
Existing land uses to be removed	(-2,762) voided
Renewable energy generation (PV+ turbines)	-13,570
Total unmitigated Operational GHG Emissions	-3,699 (-6,661)
Operational GHG Emission per service population	-1.4 (-2.5)
BAAQMD Efficiency threshold	4.6

DSP-V

pg 4.F-17

Construction	2,218
Motor Vehicles Trips	71,798 (39,457)
Electricity Demand	12,236
Natural Gas	10,069
Solid Waste	26,743
Other Sources (waste water, area sources)	1,358
Existing land uses to be removed	(-2,762) voided
Renewable energy generation (PV+ turbines)	-3,116
Total unmitigated Operational GHG Emissions	121,306 (86,203)
Operational GHG Emission per service population	7.5 (3.1)
BAAQMD Efficiency threshold	4.6

Number in parenthesis are the numbers used in the DEIR. The modifications resulted in a lowering of efficiency for both projects, but more dramatically for the DSP-V.

BayREN Forum: Household Electrification as a Pathway to On-Site ZNE

by Bay Area Regional Energy Network (BayREN)

BayREN Forum: Household Electrification as a Pathway to On-Site ZNE

Thu, March 30, 2017, 8:30 AM – 12:00 PM PDT

Free

OVERVIEW

The BayREN Codes & Standards (C&S) team invites you to register for our upcoming regional forum. The focus of this workshop is to help local governments address misconceptions and questions about 2016 Title 24, Part 6 (Energy Code) implications for designing new, or applying deep energy retrofits for, all-electric low-rise residential buildings, which are expected to increase as local governments work to integrate state goals to achieve zero net energy (ZNE) buildings. Presentations and panel discussion will offer participants the opportunity to:

- Learn about local case studies and emerging programs
- Understand the intricacies between Energy Code and low-rise residential buildings with all electric appliances
- Network and exchange ideas with neighboring jurisdictions.

Space is limited to the first 64 reservations and will be accepted on a first-come basis

WHEN

Thursday, March 30

Social Breakfast from 8:30 AM to 9:00 AM

Presentations and Panel Discussion from 9:00 AM-12:00 PM

WHERE

David Brower Center
Tamalpais Room
2150 Allston Way
Berkeley, CA 94704

ATTEND REMOTELY

For those of you who would like to join, but are unable to attend in person, please register to attend the live webinar [HERE](#).