

From: Barbara Ebel
Sent: Tuesday, February 21, 2017 1:24 PM
To: Padilla, Ingrid
Subject: Re: Follow up from last night's Council Meeting

Following up on the electricity generation vs. transportation issue.

Here is the chart Mr. Barnes was referencing.

<http://www.sustainablesanmateo.org/home/indicators-report/environment/climate-and-energy/#energy-supply>

The footnote led me to the Air Resources Board where they appear to have changed how they account for things. Instate electricity generation emissions are now 12% plus another 8% is imported for a total of 20% <https://www.arb.ca.gov/cc/inventory/data/data.htm>

I downloaded the data base because I wanted to know a little bit about what went into these numbers. There are things I'm still not clear on.

The electricity pretty clearly says the emissions are tallied based on generation. It isn't very specific about what if any emissions are counted on the consumption side or if those emissions are attributed to the activity for which they are used such as the production of mechanical equipment. Limestone (3C2) Limestone consumption (2G4) and limestone production (2A2) are all listed separately. Maybe everything is accounted for on the consumption side in electricity or maybe not?

Go figure. I would have to find a person to talk to if I was going to dig any deeper.

What I can say is that in 2014 electricity generation emissions totaled about 72-87 million tons (in and out of state, (two different charts seem to have slightly conflicting information) and all road transportation was about 144 million tons, ~BUT~ the transportation component likely to be changed by building housing on the Baylands, cars, only accounts for 52 metric tons. The rest is trucking, cargo ships, airplanes, etc. It is unclear to me if we should be accounting for CHP (combine heat and power generation in the electricity generation emissions and light duty trucks on the vehicle emissions. If these things are included, then the emissions totals tip slightly in favor of transportation. 96 to 109.

https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_ipcc_sum_2000-14.pdf

What speaks to me is that CA imports 40% of its electricity. Between transmission losses (CA average of in-state/out of state is 9%, I can't find it broken down), the need to decentralize the grid and shift to renewable resources, I still think that when all the factors are considered, social and environmental, energy generation is the lowest cost/highest gain option for the Baylands development. I'm sure no one is surprised about that however.

Hope this has been of some help. Cheers.

Barbara