

From:

Sent: Friday, May 3, 2024 11:57 AM

To: citycouncil <citycouncil@albanyca.org>

Subject: Comment on Agenda Item 11-1 for the May 6, 2024 meeting of the City Council

To: The Mayor and Members of the Albany City Council

From: Mark Meldgin, Council Member Hansen-Romero's appointee to Albany's Climate Action Committee

Subject: May 6, 2024 - Agenda Item 11-1, Resolution 2024-28: “Declaring a Climate Emergency and Calling for Urgent Action to Secure a Stable Climate “

Proposed Resolution 2024-28 asks you to declare a Climate Emergency. I share the widely held view that we are in a climate emergency. I support the Resolution, but wish it had more substance.

Albany declared a climate emergency in 2019: The first sentence of Albany's Climate Action and Adaptation Plan is: “We have a climate emergency.” Albany renewed this call: At the City Council's final meeting in 2023, “Goal 1” was “climate action and adaptation”.

What's arguably new in the proposed Resolution is in its title: “CALLING FOR URGENT ACTION TO SECURE A STABLE CLIMATE”. Unfortunately, you will not find many urgent actions in its text.

For Albany residents, the Resolution states only: “... the City of Albany requests immediate

action by residents to transition away from natural gas heating and fossil-fueled transportation as quickly as possible, and the City will support this transition by all means available;”

Please consider adding quantitative guidance for Albany residents:

BE IT FURTHER RESOLVED, Albany urges its residents to take collective and individual steps to reduce emissions. Almost all residents can take certain individual steps, such as reducing meat consumption and food waste. Residents whose default transportation is a conventional automobile at 30 miles per gallon can avoid emissions of 0.6 pounds of CO₂ per mile by walking, cycling, riding BART, or using an electric vehicle. Some residents can switch from a gas furnace to a heat-pump space heater, reducing emissions by roughly 2,700 pounds per year. Minimizing long airplane flights also reduces emissions substantially (e.g., 1,900 pounds per person for a round trip to Boston). The City urges each resident to choose collective and individual steps to reduce emissions in our climate emergency.

The target audience includes residents who have the means to buy an electric vehicle or a heat pump, but not both. Such residents can get quantitative guidance, but it takes substantial time to dig through various websites to find it.

At its January meeting, Albany's Climate Action Committee considered and rejected the addition of quantitative guidance. To me, there seemed to be three categories of objections.

First, some participants felt that numbers were a distraction in a high-level policy statement. The emergency declarations by Albany's sister cities have no numbers.

Second, some participants felt that discussions over the numbers themselves would consume too much of the Council's valuable time. (Derivations of the numbers are given below.)

Third, some participants raised equity concerns. Only a fortunate minority of Albany residents can take big actions like switching to electric vehicles or heat pumps, or taking fewer flights. The focus on those three big actions might discourage residents from taking actions with

smaller impacts, like using mass transit. I empathize with that point of view. How do we encourage fortunate residents to take actions with big impacts, while not discouraging less-fortunate residents from actions with smaller impacts?

That's one point of view, but I prefer a more optimistic view: I'm optimistic that giving people specifics will encourage each person to maximize his or her impact, whether that is through individual actions to reduce emissions, or through a collective action like political organizing.

Thank you.

Emissions Calculations

Automobile: The Energy Information Administration cites 17.86 pounds of CO₂ per gallon of “Finished Motor Gasoline. Math: 17.86 pounds of CO₂ per gallon times 1 gallon per 30 miles = 0.6 pounds of CO₂ per mile.

The EIA number assigns zero CO₂ to gasoline's ethanol content and omits CO₂ emissions from extraction, shipment and refining of petroleum to produce gasoline. The EIA figure is at this site: https://www.eia.gov/environment/emissions/co2_vol_mass.php. -- I am assuming that an EV is charged with carbon-free electricity from Ava Community Energy. That may or may not be completely true today, but California is adding solar and battery storage at an impressive rate.

Heat pump: The Energy Information Administration cites 116.65 pounds of CO₂ per MMBtu. Assume electricity is carbon-free from Ava Energy. Assume that a typical Albany home burns 230 therms, or 23 MMBtu, per year for space heating. Math: 23 MMBtu per year * 116.65 pounds of CO₂ per MMBtu = 2,700 lbs CO₂ per year.

A representative Albany single-family home (1,800 square feet, moderately well-insulated, used used an average of 230 therms per winter over the last three heating seasons.

Airplane flight: From Dr. Severin Borenstein: “For comparison, the US domestic airline

industry gets about 62.6 passenger miles per gallon ... and each of those gallons puts out about [0.01 metric tons of GHGs](https://energyathaas.wordpress.com/2023/08/28/hogs-take-flight/). That means one person's 5400 mile round-trip between San Francisco and Boston burns about 86 gallons and releases about 0.86 tons of GHGs." <https://energyathaas.wordpress.com/2023/08/28/hogs-take-flight/> 0.86 metric tons *2204 lbs/metric ton = 1,895 lbs/round-trip to Boston.

Double-check: Airplane travel uses 2,243 Btu/passenger mile, per AMTRAK's Sustainability Report. 72.23 kg CO2 per MMBtu per EIA, so 2,243 Btu/pass-mile * 5400 miles * 72.23 kg CO2 per 10⁶ Btu *2.204 lbs/kg = 1,928 lbs/round-trip to Boston.