ENGINEERING DYNAMICS CORP.
CIVIL AND MECHANICAL ENGINEERING

January 23, 2025

Senate Agriculture and Environment Committee
Hawaii State Legislature

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OPPOSED - Bill SB10 Reusable Air Filters; Disposable Air Filters; Prohibition; Air Filter Standards

I am writing to express my strong opposition to SB10, a bill that would ban the sale of disposable air filters. As a mechanical engineer with Engineering Dynamics Corp., I have serious concerns about the negative impact this bill would have on our industry and the public.

This bill appears to be based on the premise that disposable air filters are a significant environmental problem. However, there is no evidence to support this claim. Disposable air filters are not routinely found littering our environment, nor do they contribute significantly to landfill waste.

Furthermore, SB10 would have several unintended consequences that would harm both businesses and individuals:

- Reusable filters generally have lower MERV (Minimum Efficiency Reporting Value) ratings than disposable filters. This means they are less effective at capturing smaller particles like dust mites, pollen, mold spores, and other allergens.
- For people with allergies, asthma, or other respiratory sensitivities, reusable filters may not provide adequate protection.
- High-efficiency reusable filters (like HEPA equivalents) are less common and may not be available for all HVAC systems.
- Cleaning reusable filters is a multi-step process that involves removing the filter, washing it thoroughly utilizing specialized equipment, allowing it to dry completely (which can take hours), and then reinstalling it. This can be inconvenient and time-consuming, especially for busy homeowners or maintenance staff.
- For businesses, the labor costs associated with cleaning and maintaining reusable filters can be significant.
- If reusable filters are not completely dry before reinstallation, they can become breeding grounds for mold and bacteria, which can then be circulated throughout the building.
- Even with thorough cleaning, some contaminants may remain trapped in the filter media, potentially posing health risks.
- Due to the additional costs and time-consuming cleaning methods businesses may opt to clean less frequently or may improperly clean reusable filters, resulting in lower air quality for HVAC systems.
- Repeated washing and drying can degrade the filter media over time, reducing its effectiveness.
- Reusable filters may not be appropriate for environments with strict air quality requirements, such as hospitals, laboratories, or cleanrooms.
- Cleaning reusable filters consumes water, which can be a concern in areas with water scarcity.
- Some cleaning solutions used for reusable filters may have environmental impacts.

For these reasons stated above, I urge you to oppose SB10.

January 23, 2025

The Honorable Senator Mike Gabbard, Chair Agriculture and Environment Committee
The Honorable Senator Tim Richards, III, Vice Chair Agriculture and Environmental Committee

Hawaii State Capitol
415 South Beretania Street
Honolulu, HI 96813

Re: Opposition to SB10, relating to Air Filters

Senator Inouye, Senator Chang, and Senator Fevella,

My name is Brian Ninomoto, President of Hawaii Sheetmetal and Mechanical, Inc. I have been in business since 2006 and currently service residential and commercial customers on the Big Island and Oahu. I humbly submit testimony in **opposition** to SB10, which prohibits the sale of disposable air filters.

When considering the merits of disposable air filters compared to reusable ones, several factors come into play:

1. Convenience: Disposable filters can effectively capture fine particles, potentially improving indoor air quality.
2. Air Quality: High-quality disposable filters can effectively capture fine particles, potentially improving indoor air quality.
3. Maintenance: Regular replacement of disposable filters ensures that the HVAC system operates efficiently, as clogged filters can reduce system performance.
4. Cost: While reusable filters may have a higher upfront cost, disposable filters can spread the expense over time, which can be more manageable for some users.
5. Hygiene: Reusable filters require thorough cleaning to prevent mold and bacteria growth, whereas disposable filters eliminate this concern upon replacement.

The proposed ban on disposable air filters in Hawaii could have several implications for both residential and commercial air conditioner (AC) uses.

Impacts on Resident AC Users:

1. Increase Cost for Homeowners:

    a. Higher upfront costs for reusable filters: Reusable air filters often have a significantly higher initial price compared to disposable filters. For households on tight budgets, this upfront expense could be challenging.
    b. Cost of maintenance: Homeowners would need to spend time and resources on regularly cleaning reusable filter to maintain their effectiveness, potentially increase water and cleaning product usage.
2. Convenience and Practicality:
    a. Added Maintenance Burden: Many homeowners may not have the time, equipment, or know-how to clean reusable filters properly, leading to a higher risk of poor air quality or system inefficiency due to neglect.
    b. Accessibility Concerns: Renters or individuals with limited physical capacity (e.g., elderly residents) may find reusable filters impractical to manage.
3. Air Quality and Health Risks:
    a. Improper Cleaning Risks: If reusable filters are not cleaned thoroughly, it can accumulate dust, mold, and allergens, viruses, and air borne pathogens potentially releasing these contaminants back into the air.
    b. Decreased Indoor Air Quality: Disposable filters are often more effective at capturing fine particles like pollen and dust, which is crucial in Hawaii's humid climate where allergens can thrive.

Impacts on Commercial AC Users:

1. Operational and Maintenance Challenges:
    a. Increased Labor Costs: Commercial properties, such as office buildings, hotels, and retail spaces, often have large HVAC systems that require frequent maintenance. Cleaning and reusing filters would demand additional labor and time, driving up maintenance costs.
    b. System Downtime: Regular cleaning cycles for reusable filters could disrupt operations, particularly in business that depend on 24/7 air conditioning (e.g., data centers, healthcare facilities)
2. Environmental and Health Concerns:
    a. Potential Water Usage Increase: Reusable filters require substantial water for cleaning, which could strain Hawaii's already limited freshwater resources.
    b. Indoor Air Quality: High-traffic commercial spaces often produce more pollutants (e.g., dust, dirt, and debris). If reusable air filters are not maintained properly, there could be a significant decline in air quality, impacting employees and customers.
3. Economic Impact of Local Businesses:
    a. Adoption Costs: Transitioning to reusable filters may require retrofitting or adjustments to existing HVAC systems, adding unexpected expenses for businesses.

b. Competitive Disadvantage: Increased operational costs could make Hawaii business less competitive, especially for those in industries like tourism and hospitality.

Broad Considerations:

- Environmental Trade-offs: While the intent of banning disposable filters is to reduce landfill waste, the environmental trade-offs should be carefully evaluated. Cleaning reusable filters consumes water, energy, and cleaning agents, which may offset the intended benefits. Reusable filters are made from polyester, polypropylene, fiberglass and foam which are known to give off VOCs and are toxic in nature
- Impact of Vulnerable Groups: The ban could disproportionately affect low-income families and small businesses, as they may struggle to cover the high upfront and maintenance costs associated with reusable air filters.

While the intent of SB10 is commendable, its potential consequences—like economic burdens, practical challenges, and unintended environmental impacts—could outweigh the benefits. I would advocate for a balanced approach, like improving recycling program for disposable filters or offering incentives for businesses to adopt eco-friendly alternative, which could be a more effective solution.

Sincerely,

Brian Ninomoto
Owner, Hawaii Sheetmetal and Mechanical, Inc.

SB-10
Submitted on: 1/23/2025 10:56:36 PM
Testimony for AEN on 1/24/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Julie Obrero	Testifying for PRECISION AIR CONDITIONING, INC.	Oppose	Written Testimony Only

Comments:

Dear State of Hawaii Legislature,

We, as a small HVAC business in Hawaii for the past 45 years, strongly oppose this bill. It would significantly affect Hawaii's HVAC industry along with our Clients who rely on our services to maintain their equipment. With the already diminishing economy and an extreme increase to our cost of living over the past few years, this bill would only devastate our economy and community further. Please take the peoples interests and livelihood into heavy consideration before considering to approve this bill.

Sincerely,

Julie Obrero/President