

Testimony in Support of HB 4089

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As lawmakers and scientists debate how best to reduce carbon emissions, at Change the Pallet, we decided it was time to pull people out of their respective political corners and bring them together around a climate and transportation solution with an idea everyone could get behind.

We believe – and empirical and anecdotal evidence strongly supports – that House Bill 4089 is model legislation that will save taxpayers money, reduce truck traffic, and significantly reduce CO2 emissions.

The Concept

House Bill 4089 asks state procurement offices to request that most goods the state procures be shipped on corrugated cardboard pallets.

Modeled after a global sustainability and cost-savings initiative by IKEA, House Bill 4089 seeks to use Oregon's procurement power to reduce truck traffic congestion, reduce worker's compensation claims, lower CO2 emissions, and work to keep pallets out of the landfill – and the trucks needed to take them there off the road.

By using the state's procurement power to rethink how Oregon receives goods from suppliers, we also have a conversation about freight mobility, climate, and smarter government spending. We can learn from the effort and use that information to inform and incentivize Oregon's largest manufacturers to do the same.

However, HB 4089 isn't symbolic legislation. By shifting our thinking and leveraging our procurement power, we can make an impact in solving some of the biggest transportation challenges Oregon faces – truck traffic congestion, fossil fuel usage, and common sense climate change solutions. Since the recent development at Terminal 6, the Port of Portland estimates that 1,700 more trucks are on the road every week. Our hope is this bill provides needed congestion relief in the near future.

In 2012, IKEA required more than 1000 global suppliers in more than 50 countries to ship to IKEA on corrugated papers, and the results for its bottom line, and the planet, have been astonishing. IKEA has self-reported an annual freight savings of some \$200 million, and CO2e reductions of 75,000 metric tons of carbon per year. For perspective, that's nearly one-tenth of what Oregon's Low Carbon Fuel Standard is estimated to save annually.

We understand it is difficult to comprehend that thousands of pounds of freight can be shipped on a cardboard pallet that weighs less than 10 pounds. But IKEA is shipping some ten million such pallet loads each year to amazingly positive effect.



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Change the Pallet™ is a project of The Forward Edge Initiative™ (FEI), an Oregon-based 501(c)3.

Wood Pallets vs. Corrugated Pallets

While the use of wood pallets vary, the National Wood Pallet & Container Association (NWPCA) says the average wood pallet gets five uses before it goes to the landfill. However, Modern Material Handling's 2010 Pallet Survey states that 29% of respondents use a pallet only once: http://www.mmh.com/images/site/MMH1009_SpecialRptPallet.pdf.

With proper handling and usage, corrugated pallets can be used all the way through the supply chain. IKEA recycles the pallet at the last stop on their supply chain. Corrugated cardboard pallets have been compression-tested up to 10,000 pounds. IKEA regularly ships on a smaller, Euro-style pallet. Those pallets are reported by IKEA staff to hold as much as 3-4K pounds per pallet. The picture in Supporting Document A is a standard U.S. corrugated pallet holding 2,700 pounds of peanuts, and full truckloads are shipped each week from Texas to Mexico without incident.

When conducting its evaluation of all available pallet life-cycle analyses (LCA's), Change The Pallet applied the NWPCA's number of five uses per pallet, and very conservatively assumed only one use per corrugated pallet before recycling. The positive impact on the environment by switching to corrugated paper was still substantial due to the ability to reduce the number of trucks needed to ship the same amount of product.

Further, our evaluation found that the environmental impact of making one million wood pallets versus one million corrugated pallets is negligible. Corrugated pallets, however, are significantly better for the environment because they reduce truck requirements at each phase of the supply chain:

- (i) From point-of-manufacturing to point-of-use, during which an average of 1,700 corrugated pallets can fit on a truck compared to only 400 wood ones
- (ii) During product transport, where IKEA reports conservatively a 15% increase in the amount of product it can put on a truck due to the pallet weight, height, size configuration, and the ability to pack the truck to the top of the container cabin
- (iii) End of life, where only 400 wood pallets can fit on a truck compared to compacted corrugated pallets going into a recycling bin

Oregon's government agencies are usually at the end of a pallet's life cycle, where the pallet becomes a liability. According to Republic Services, it costs roughly \$50-\$100 / ton to dispose of wood materials versus receiving \$200 / ton for corrugated recycling. The House Transportation Committee should ask the Department of Administrative Services and other state agencies with procurement authority how many wood pallets are received each year, and what is the total cost to dispose of those pallets? How many injuries are incurred by handling wood pallets?

House Bill 4089 provides an exemption in use of corrugated pallets for prolonged inclement weather in accordance with a corrugated manufacturer's recommendations for proper use of a corrugated pallet. Corrugated pallets can have a water-resistant barrier applied at a nominal additional charge. Coating does not affect recycling. We anticipate that the most regular use by a government agency is dry-dock shipping to dry-dock receiving.



Cost Breakdown

While the cost of a pallet can vary based on size, an average new pallet can cost \$8-10 per pallet and a heavy-duty corrugated can cost \$10.00 to \$12.00 per pallet. That cost estimate reflects a pallet with 48" x 40" dimensions. While we don't have specific numbers on a light duty corrugated pallet like IKEA uses, industry experts suggest they cost less.

Wood pallets tend to be standardized in the U.S. because one-off production sizes drive substantially higher production costs, and the pallets themselves have very little use in the after-market. This is why standard wood pallets limit the amount of truck bed available to users versus custom-sized corrugated pallets.

The cost breakdown only addresses the actual cost of procuring either pallet type. It does not factor in the sale of used paper fiber to the recycling market, nor does it factor in the cost associated with pallet exchanges. The soft costs of pallet exchange are hidden in the overall costs of goods sold to a buyer, or the cost gets passed off to trucking companies.

Savings Opportunities

While the cost is slightly higher for a new heavy-duty corrugated pallet versus a wood pallet, the true savings generated from other line items in the state's budget are significant.

- Less truck movement = less overall trucking, transportation and fuel costs. For every one-time a wood pallet is shipped with freight on it, we can track at least two additional movements that require truck transportation to move the pallets empty
- Lighter truck weight = less fuel consumption. The difference between a wood pallet weighing 40 pounds and a corrugated pallet weighing 10 pounds reduces the pallet weight on a truck by 780 pounds, assuming a full truck of 26 standard 48" x 40" pallets
- Customized configuration of corrugated pallets allows more freight on a truck, conservatively a 15% increase, although IKEA self-reports nearly a full one-third more freight on most of their inbound Portland trucks
- Less trucks on the road = less wear and tear on Oregon's freeways, saving taxpayers millions in repair costs
- Less disposal costs and an opportunity to be paid for the recyclable cardboard fiber
- Reduced workers comp claims due to freight injuries, repetitive motion injuries and other pallet-specific injuries. Government entities in Oregon in 2014 paid out a whopping \$46M in worker's comp claims including payments for freight-related injuries

Conclusion

Today, the committee will hear all the reasons that it is too onerous to make this kind of change. You might also hear that the state shouldn't be picking winners and losers in the free market. Remember, as a consumer, you are part of the free market. Your procurement power should be put to use saving taxpayer dollars. And if the state has a goal to protect the environment, it should go first in leading sustainability changes in public procurement.



There is little question that once Oregon makes this change, corrugated pallets will be specified in public contracts throughout the country. The question is, does Oregon have the vision to go first? IKEA set a global precedent in the private sector, proving the concept and reducing emissions by 75,000 metric tons per year in the process. I hope very much that our state is the next global leader to seize the opportunity to reduce costs and emissions, and set the trend for state and local governments across the nation.

