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CONSENT CALENDAR

May 14, 2019

To: Honorable Mayor and Members of the City Council
 From: Councilmembers Sophie Hahn, Kate Harrison, and Cheryl Davila
 Subject: Supporting the Timely Implementation of the Buy Clean California Act and Reaffirming the City of Berkeley's Commitment to Reducing Embodied Energy in Building Materials

RECOMMENDATION

Adopt a resolution supporting the timely implementation of the Buy Clean California Act (AB 262), and reaffirming the City of Berkeley's commitment to reducing embodied energy in building materials. Send copies of the resolution to Assemblymember Buffy Wicks, State Senator Nancy Skinner, Governor Gavin Newsom, and senior leadership at the California Department of General Services.

SUMMARY STATEMENT

In 2017, the State legislature passed AB 262 which requires State agencies to purchase construction materials (such as structural steel, carbon steel rebar, mineral wool board insulation, and flat glass) from manufacturers that have invested in cutting their greenhouse gas emissions. Emissions (and other impacts) are disclosed through an Environmental Product Declaration (EPD) which is similar to a "nutrition label" and provides information on the amount of greenhouse gas emissions that the manufacturer creates from raw materials acquisition through manufacture of a product. Though the Buy Clean California Act was signed into law in 2017, the Sierra Club has expressed concern that the act will not be fully implemented, due to outside pressure on the Department of General Services, the state agency charged with implementing the act.

The City of Berkeley adopted an ambitious Climate Action Plan in 2009, and to achieve its goals,¹ Berkeley has committed to reducing its greenhouse gas (GHG) emissions through a variety of measures, including a reduction in the amount of energy consumed by buildings. A major element of a building's energy consumption is its embodied energy, the non-renewable energy consumed in the acquisition of raw materials, their processing, manufacturing and transportation to the site, and during construction.

¹ Berkeley Climate Action. Office of Energy and Sustainable Development. [Web](#).

Berkeley has also adopted a number of plans and policies dedicated to fighting climate change and improving the energy efficiency and sustainability of buildings, including the Berkeley Resilience Strategy (2016), the Berkeley Deep Green Building Initiative (2017) and other extensive green building standards², and a Climate Emergency Declaration (2018). Berkeley's Deep Green Building Initiative, adopted unanimously by the Berkeley City Council in February 2017, referred to the City Manager and Energy Commission to develop policies and programs to improve the energy efficiency and sustainability of buildings.

By joining other California cities in supporting full implementation of the Buy Clean California Act, Berkeley can urge the State to address supply chain emissions, and reaffirm its commitment to reducing embodied energy in building materials, particularly those used in public projects. Full implementation of the Buy Clean Act will also serve as "proof of concept" for strategies to reduce embodied energy, which cities like Berkeley can look to in developing local standards to ensure that building materials used in local projects minimize embodied energy and GHG emissions.

BACKGROUND

In addition to the energy buildings consume on an ongoing basis for electricity, water and other utilities, significant energy is "embodied" in building materials themselves. Embodied energy is defined as the non-renewable energy consumed in the acquisition of raw materials; their processing, manufacturing and transportation to the site; and during construction.

Many of the strides that the U.S. and Europe have made to reduce emissions over the past decade have failed to account for emissions "exported" to other countries. Steel that used to be manufactured in the U.S. and is now manufactured in China, for example, has an environmental cost when we use it for building in the United States. Nearly 13 percent of China's emissions and 20 percent of emissions in India are attributable to the production of goods for other countries.³ The energy used to produce building materials in these countries are far more carbon-intensive because their power grids are more reliant on coal, resulting in significant GHG emissions.

Purchasing decisions are among the most effective tools consumers have to influence pollution reduction. State and local governments are consumers who can reduce GHG emissions by spending their money in ways that support environmental goals.

² Green Building Requirements. Office of Energy and Sustainable Development. [Web](#).

³ Plumer, Brad. You've Heard of Outsourced Jobs, but Outsourced Pollution? It's Real, and Tough to Tally Up. 4 September, 2018. [Web](#).

The Buy Clean California Act (AB 262) was passed in 2017, requiring the Department of General Services to establish a Global Warming Potential (GWP) limit for materials frequently used in construction including structural steel, carbon steel rebar, flat glass, and mineral wool board insulation. The bill also requires successful contract bidding companies to submit an Environmental Product Declaration (EPD) providing information on greenhouse gas emissions during manufacture. In 2019, State agencies are requesting that bidders submit EPDs for eligible materials used in projects. On January 1, 2020, bidders will be required to submit EPDs. The Department of General Services (DGS) will publish the maximum acceptable GWP by January 2021, when State-level compliance will be required.⁴ However, there is concern that DGS will not implement the Buy Clean Act promptly and the Sierra Club is asking cities to issue Resolutions in support of the Act's full implementation.

By committing to implementing the Buy Clean California Act, the State could contribute to a growing chorus to close this so-called "carbon loophole." The United States is the biggest importer of embodied carbon -- carbon produced throughout the entire life cycle of manufacturing and shipping. The steel and cement industries represent 10 percent of global greenhouse gas emissions and the biggest sources of embodied carbon worldwide.⁵

REVIEW OF EXISTING PLANS, PROGRAMS, POLICIES & LAWS

The City of Richmond, CA, adopted a resolution in 2018 supporting statewide efforts to implement the Buy Clean Act, and simultaneously directed their City Manager to report back on potential early implementation. Their resolution maintains that the Buy Clean Act's policies "level the playing field for companies that have invested in reducing their environmental impact and encouraging the development of an environmentally friendly manufacturing industry."⁶

Supporting the implementation of the Buy Clean California Act is closely aligned with Berkeley's support for other environmental initiatives, in addition to the many plans and policies enacted by the City including the Climate Action Plan, Berkeley Deep Green Buildings, and the Berkeley Resilience Strategy.

⁴ California Assembly Bill 262. Chapter 816. California Legislature. [Web](#).

⁵ Moran, Daniel; Hasanbeigi, Ali; and Springer, Cecilia. The Carbon Loophole in Climate Policy. [Buyclean.org](#). August 2018. [Web](#).

⁶ City of Richmond Agenda Report. Proposed Resolution in Support of California Buy Clean Efforts. 10 July, 2018.

The first goal of the Berkeley Climate Action Plan (CAP) relates to reducing the energy consumed by buildings. The CAP also sets a goal of reducing greenhouse gas emissions by 33 percent of 2000 levels by 2020, and 80 percent by 2050.

In addition, Berkeley Deep Green Buildings set out five goals to achieve truly green buildings in Berkeley:

1. Support Zero Net Energy at the individual building and community scale
2. Reduce Embodied Energy in building materials and practices
3. Reduce toxicity in building materials
4. Source sustainably produced materials from fair trade, fair wage and culturally and environmentally sustainable suppliers; and
5. Conserve Water

Berkeley Deep Green Buildings also referred specific Global Warming Potential levels for certain building materials to the City Manager and the Energy Commission as requirements for future building projects.

Finally, the Berkeley Resilience Strategy of April 2016 further recognized the importance of reducing building emissions, reinforcing the need for us to take continuing steps to combat climate change.

ACTIONS/ALTERNATIVES CONSIDERED

Referring adoption of Buy Clean California Act regulations governing embodied energy in building materials and requiring EPDs to be delivered for large contracts for City of Berkeley building projects was also considered. However, it is more appropriate at this time for the City to await and encourage full implementation of such regulations at the state level, so that best practices can be developed by the state, before adopting these regulations at the local level.

CONSULTATION/OUTREACH OVERVIEW & RESULTS

Molly Culton, a conservation organizer for the Sierra Club, provided information on the Sierra Club's support of local resolutions in support of the Buy Clean California Act to reinforce the state's role and keep administrators motivated toward full and timely implementation.

Cate Leger, Chair of the Energy Commission, a green architect and expert on building energy, and primary author of Berkeley Deep Green Building, was also consulted to provide additional background information on Berkeley's policies regarding embodied energy in building materials.

RATIONALE FOR RECOMMENDATION

Berkeley's Climate Action Plan commits the city to reduce the embodied emissions of building materials. As such, supporting the statewide implementation of the Buy Clean California Act is aligned with the Climate Action Plan and numerous other policies adopted by the City of Berkeley.

The Sierra Club wants to ensure that DGS will implement the Buy Clean California Act in a timely fashion, and is asking California cities and counties to pass resolutions urging full and timely implementation. The City can contribute to the implementation of effective standards by passing a resolution to support the robust implementation of the Buy Clean California Act (AB 262), delivering letters to California Assembly Member Buffy Wicks and California Department of General Services staff.

The City of Berkeley can also reaffirm its commitment to policies to improve the sustainability of buildings and reduce embodied energy in building materials, and to show support for legislation seeking to reduce the environmental costs of building materials and to consider sourcing less impactful alternatives.⁷

IMPLEMENTATION, ADMINISTRATION & ENFORCEMENT

At this time there is no enforcement required, as the resolution is supporting new standards for State-level contracts only.

FISCAL IMPACTS

Staff time to send copies of the resolution to State officials. In the future, if local regulations similar to the Buy Clean Act are adopted after successful implementation by the State, there may be potential costs or savings associated with additional requirements for sourcing materials from manufacturers, or for buying more sustainably sourced materials.

ENVIRONMENTAL SUSTAINABILITY

This item would fulfill key provisions in the City of Berkeley's Climate Action Plan, Resilience Strategy, and Berkeley Deep Green Building initiative.

CONTACT

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⁷ Buy Clean California: Aligning Public Spending with Our Environmental Goals. Sierra Club CA. [Web](#).

RESOLUTION NO. ##,###-N.S.

RESOLUTION SUPPORTING STATE IMPLEMENTATION OF THE
BUY CLEAN CALIFORNIA ACT OF 2017

WHEREAS, the 2018 UN Intergovernmental Panel on Climate Change (IPCC) Report states that we have 12 years to make “massive and unprecedented changes” to global energy infrastructure to limit global warming to moderate levels; and

WHEREAS, immediate action must be taken to reduce greenhouse gas emissions; and

WHEREAS the State of California is a demonstrated leader in the fight against climate change; and

WHEREAS, the State legislature passed the Buy Clean California Act (AB 262) in 2017, the country’s first bill that addresses greenhouse gas emissions within State purchases for public works projects; and

WHEREAS, the bill requires the Department of General Services to establish a Global Warming Potential (GWP) limit for eligible materials such as structural steel, carbon steel rebar, mineral wool board insulation, and flat glass; and

WHEREAS, successful bidders on contracts for public works projects are required to submit an Environmental Product Declaration (EPD), which provides emission information on greenhouse gas emissions that the manufacturer creates during production of eligible materials; and

WHEREAS, a major element of a building’s energy consumption is its Embodied Energy, the non-renewable energy consumed in the acquisition of raw materials; their processing, manufacturing and transportation to the site; and construction; and

WHEREAS, the City of Berkeley has adopted a number of plans and policies dedicated to fighting climate change and improve the energy efficiency and sustainability of buildings, including the Climate Action Plan (2009), the Berkeley Resilience Strategy (2016), the Berkeley Deep Green Building Initiative (2017), and the Climate Emergency Declaration (2018); and

WHEREAS, the Climate Action Plan states that commercial and residential buildings account for nearly half of the City’s emissions; and

WHEREAS, by joining other California cities in supporting full and timely implementation of the Buy Clean California Act, Berkeley can help ensure that the Buy Clean California Act can serve as an example for cities to develop local strategies to reduce embodied energy.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City of Berkeley supports and encourages full and timely implementation of the Buy Clean California Act by the State.

BE IT FURTHER RESOLVED, that the City of Berkeley reaffirms its commitment to reducing the embodied energy of building materials.

