

DAVID Y. IGE
GOVERNOR



TESTIMONY BY:

JADE T. BUTAY
DIRECTOR

Deputy Directors
LYNN A.S. ARAKI-REGAN
DEREK J. CHOW
ROSS M. HIGASHI
EDWIN H. SNIFFEN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

March 23, 2021
3:00 P.M.
State Capitol, Teleconference

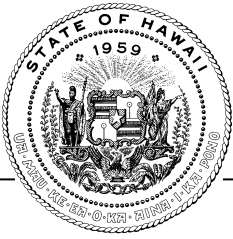
H.B. 803, H.D. 1
RELATING TO ELECTRIC VEHICLES

Senate Committee on Transportation

The Department of Transportation (DOT) **supports** H.D. 803, H.D. 1 that authorizes each county to adopt ordinances to enforce Section 291-71, Hawaii Revised Statutes, including the establishment of penalties for failure to comply with its requirements or make reasonable efforts to maintain electric vehicle charging stations in working order.

The Highways division is updating and converting its light duty fleet to meet the aggressive clean energy goals set by the State. Having more charging areas available will support the efforts of the State and private owners to convert to electric vehicles. The DOT fully support all counties should lead these initiatives and setting the standards throughout the State.

Thank you for the opportunity to provide testimony.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-3807
Fax: (808) 586-2536
Web: energy.hawaii.gov

Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
SENATE COMMITTEE ON TRANSPORTATION

Tuesday, March 23, 2021
3:00 P.M.
House conference room 224 and via videoconference

In Support of
HB 803 HD1
RELATING TO ELECTRIC VEHICLES.

Chair Lee, Vice Chair Inouye, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports HB 803 HD1, which authorizes each county to adopt ordinances to enforce section 291-71, HRS, including the establishment of penalties for failure to comply with its requirements or make reasonable efforts to maintain electric vehicle (EV) charging stations in working order, clarifies that certain enforcement officers may enter private property to enforce EV parking space violations, requires new EV charging systems installed pursuant to the EV charging system requirement to be at least Level 2 and network-capable, and increases the number of required parking spots for electric vehicles from one space to five spaces.

Emissions from ground transportation account for the largest share of energy sector emissions in the state. For Hawaii to meet its statutory target set forth in §225-P-5 “to sequester more greenhouse gases than emitted as soon as practicable, but no later than 2045,” programs that support the adoption of cleaner transportation options are necessary and important. Specifically addressing infrastructure to achieve those goals is directed by §226-18(a)(2) “Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all: ... (2) Increased energy security and self-sufficiency through

the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation;”

Increasing the number of required parking spots for electric vehicles from one space to five spaces provides greater support for the level of EV adoption that will be required to achieve State energy and decarbonization goals. According to the U.S. Census Bureau American Community Survey data, in 2019 thirty-nine-point eight percent of households in Hawaii were renters, over 10% higher than the U.S. average. As a national leader in EV adoption Hawaii currently has roughly 1 public charger per 44 vehicles. To maintain the same ratio of existing public charging per EVs, with one third penetration of EVs, Hawaii would need to add roughly 7,000 public chargers. The number of additional chargers does not take into account that the vast majority of EV owners are arguably homeowners in single-family unit dwellings. From the standpoint of both equity and ability to achieve the State's energy and decarbonization policies there is a huge need for publicly accessible charging in Hawaii.

Providing the authority to ensure reasonable efforts are made to maintain the expanded number of EV charging stations in working order, and requiring new EV charging systems installed pursuant to the EV charging system requirement to be at least Level 2 and internet-capable, will provide consumer's confidence that not only will more EV chargers be available but that they will be in good working order. Expanding the availability of EV chargers and ensuring that they are reasonably maintained supports the state decarbonization efforts mandated by §225-P-5 and §226-18(a)(2).

Thank you for the opportunity to testify.

OFFICE OF CLIMATE CHANGE, SUSTAINABILITY AND RESILIENCY
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11th FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-2277 • EMAIL: resilientoahu@honolulu.gov • INTERNET: www.resilientoahu.org



RICK BLANGIARDI
MAYOR

MATTHEW GONSER, AICP, CFM
EXECUTIVE DIRECTOR &
CHIEF RESILIENCE OFFICER

TUESDAY, MARCH 23, 2021, 3:00 P.M.

STATE OF HAWAII
SENATE COMMITTEE ON TRANSPORTATION

**TESTIMONY ON HOUSE BILL 803, HD1
RELATING TO ELECTRIC VEHICLES**

BY,

MATTHEW GONSER
EXECUTIVE DIRECTOR AND CHIEF RESILIENCE OFFICER
OFFICE OF CLIMATE CHANGE, SUSTAINABILITY AND RESILIENCY

Dear Chair Lee, Vice Chair Inouye, and Members of the Committee:

The City and County of Honolulu (City) Office of Climate Change, Sustainability and Resiliency (CCSR) **supports** House Bill 803, HD1, which authorizes the counties to enforce section 291-71 Hawai'i Revised Statutes (HRS), including establishing penalties for failure to comply with its requirements or to maintain electric vehicle (EV) charging stations in working order; clarifies that enforcement officers may enter private property to enforce EV parking violations; and increases requirements for the number of EV charging stalls per one hundred parking stalls from one stall to five stalls.

On-road transportation is the third-largest greenhouse gas emission source on O'ahu,¹ making gas-powered transportation one of the largest barriers to achieving the City's—and complementary State—goal of net-negative carbon emissions by no later than 2045 as codified in City Ordinance 20-47. Additionally, our dependence on vehicular transportation has only increased since 2012, the original benchmark year in HRS section 291-71; annual vehicle miles travelled on O'ahu went from 6,591,800,000 in 2012² to 6,659,000,000 in 2019.³ These facts point toward the need for widespread adoption of electric vehicles (EV), among other renewably-powered vehicles and

1 O'ahu Greenhouse Gas (GHG) Emissions Inventory, <https://resilientoahu.org/energy>.

2 2021 State of Hawai'i Data Book, Section 18, Table 18.16,

<https://dbedt.hawaii.gov/economic/databook/db2012/>

3 City and County of Honolulu, 2020 Annual Sustainability Report, Clean & Affordable Transportation, p.15, <https://resilientoahu.org/sustainability-report>.

Chair Lee and Vice Chair Inouye
HB803, HD1
March 23, 2021
Page 2

mobility options, in order to achieve both the City's and the State's emissions reduction goals.

However, the lack of EV charging infrastructure is a major roadblock to widespread EV adoption. Across the whole of O'ahu, there are only 424 EV charging stations, and most are located in the urban core.⁴ By both allowing the City to enforce existing statute on EV charging parking requirements and by increasing the number of EV charging parking requirements, HB803, HD1 represents a practical solution to expand publicly accessible EV charging infrastructure and a crucial step forward in achieving our collective goals.

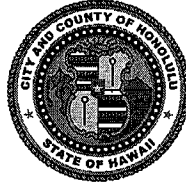
Thank you for the opportunity to testify in support of HB803, HD1.

⁴ Ibid.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

RICK BLANGIARDI
MAYOR



ALEX KOZLOV, P.E.
DIRECTOR

HAKU MILLES, P.E.
DEPUTY DIRECTOR

March 22, 2021

The Honorable Chris Lee, Chair
The Honorable Lorraine R. Inouye, Vice-Chair
and Members of the Committee on Transportation
The Senate
State Capitol, Room 224
415 South Beretania Street
Honolulu, Hawaii 96813

Dear Chair Lee, Vice-Chair Inouye, and Members:

SUBJECT: House Bill No. 803 HD1
Relating to Electric Vehicles

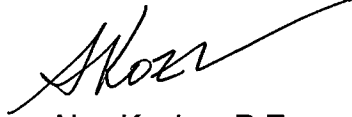
The Department of Design and Construction (DDC) respectfully supports the intent of House Bill No. 803 HD1. However, based on the City's experience with electric vehicle (EV) parking spaces and charging systems, DDC requests the following revisions to the bill:

1. The bill should be amended to provide an exception to the requirement for EV charging stations at parking lots located in flood zones. Electrical code requirements make installation of EV charging stations in many flood zone locations impractical. Elevating the electrical equipment above the designated flood elevation would make it inaccessible. DDC has encountered this restriction at parking lots in popular beach parks. Parking lot owners that do not own parking lots at locations outside of flood zones would have no practical way to comply with this requirement.
2. The bill should be amended to allow for time extensions in situations where such delays are beyond the control of the parking lot owner. The time needed to plan, design, obtain permits, and construct the needed off-site distribution capacity improvements to a parking lot can be substantial and can delay equipment installation.

The Honorable Chris Lee, Chair
and Members of the Committee on Transportation
March 22, 2021
Page 2

Thank you for the opportunity to express our comments on House Bill No. 803
HD1.

Sincerely,

A handwritten signature in black ink, appearing to read "Kozlov", with a long, sweeping horizontal stroke extending to the right.

Alex Kozlov, P.E.
Director

Hawaii Electric Vehicle Association

PO BOX 6310
Hilo, HI 96720
hawaiidriveelectric@gmail.com



March 21, 2021

Dear Chair Lee, Vice-Chair Inouye, and Transportation Committee members,

Hawaii Electric Vehicle Association is in STRONG SUPPORT of HB 803 HD1.

To achieve Hawaii's sustainable goals, we must electrify ground transportation on our islands as soon as possible. Automakers are delivering more affordable long-range electric vehicles (EVs) in response to the demand for zero-emission transportation and more bans on the sales of new gas-powered vehicles¹. This increase in availability will accelerate the adoption of EVs. Hawaii must proactively respond by expanding its charging infrastructure.

HRS 291-71 is intended to expand EV charging infrastructure. However, as far back as [2013](#), it was recognized that it required tuning to incentivize our counties to codify the law. Unfortunately, not much has changed with enforcement. As a result, properties across Hawaii with over 100 parking spaces have either no electric vehicle (EV) chargers or have chargers in disrepair. Projects required to install EV parking and charging infrastructure continue to move forward without the requirement met. Additionally, charging station owners and property managers with faulty equipment has been slow to repair malfunctioning stations. Projects often result in installing stations with less than Level 2 output, creating an impractical result and unnecessarily long vehicle charging times.

Importantly, reliable public EV charging stations are needed to ensure equitable access to sustainable transportation. Much of Hawaii's ALICE (Asset Limited, Income Constrained, Employed) and low-income households don't have the luxury of home charging. Many residents live in multi-unit dwellings or rental homes without access to home charging. Without an excellent public charging system, many will not enjoy the economic, environmental, and health benefits of clean transportation.

A robust and reliable public charging infrastructure is essential for broad and equitable EV adoption in Hawaii. **HB 803 HD1** will help us achieve the intent of HRS 291-71 and ensure that EV charging does not become a limiting factor to our transition to a clean transportation future. The increase in the number of EV parking spaces equipped with network-capable Level 2 charging equipment (specified in this version of the bill) is beneficial.

Thank you for your support of **HB 803 HD1**.

Sincerely,
Noel Morin - President

Hawaii EV Association is a grassroots non-profit group representing electric vehicle owners in Hawaii. Our mission is to accelerate the electrification of transportation through consumer education, policy advocacy, and electric vehicle charging infrastructure expansion. For more information, please visit hawaiiev.org.

¹ Countries that have announced bans on gas cars - [worldatlas.com/articles/countries-that-will-ban-gasoline-cars.html](https://www.worldatlas.com/articles/countries-that-will-ban-gasoline-cars.html)

**Big Island Electric Vehicle
Association**
www.bigislandev.org



March 21, 2021

Dear Chair Lee, Vice-Chair Inouye, and Transportation Committee members,

Big Island Electric Vehicle Association is in **STRONG SUPPORT of HB 803 HD1.**

A reliable public charging infrastructure is essential to electric vehicle (EV) adoption in Hawaii and for equitable access to clean transportation. HRS 291-71 needs to be enforced. While it has enabled the expansion of EV charging infrastructure, there is a lot to be desired as it was not enforceable. As a result, we've had spotty compliance, and many charging stations are underpowered, non-operational, or not reliable. As an example, a charging station at a Hilo big box store has not been working for over 2 years now, and some Hawaii Island Level 2 chargers may as well be 110V outlets, given their power output.

EV adoption will accelerate...

Automakers are heeding the demand for zero-emission vehicles and are providing consumers with choice and affordability. Long-range EVs are now accessible to almost everyone and there will soon be a model and price point to meet every consumer's needs and expectations. However, without proper charging, the transition to EVs will be hampered. We need to respond by proactively expanding our charging infrastructure.

An adequate network of charging stations will accelerate the adoption of EVs by all in our society; it will democratize sustainable transportation. **It will benefit people who don't have access to home charging** – people in multi-unit dwellings, renters, people with low-range EVs, and visitors who prefer to rent electric vehicles. It will benefit EV owners with home charging who may need to charge while on a long commute.

An adequate network of charging stations will allow us to accelerate our transition to clean transportation. With EVs still a little over 1% of our state's 1.2 million passenger cars, we have a long way to go.

HB 803 HD1 will help us ensure that the intent of HRS 291-71 is realized. It will allow for the necessary enforcement of EV parking and charging rules, increase the parking and charging requirements, and the establishment of charging station standards.

Thank you for your support of **HB 803 HD1.**

Sincerely,
Noel Morin
President

Big Island Electric Vehicle Association (bigislandev.org), established in 2011, is a grassroots non-profit group dedicated to accelerating the adoption of EVs on Hawaii Island. Our members are EV owners and supporters.



Sustainable Energy Hawai'i

sustainableenergyhawaii.org

421 Lama St.

Hilo, HI 96720

March 21, 2021

SUPPORT for **HB 803 HD1** RELATING TO ELECTRIC VEHICLES

Dear Chair Lee, Vice-Chair Inouye, and Transportation Committee members,

I am Richard Ha, Chair of Sustainable Energy Hawai'i, a coalition of concerned citizens dedicated to improving the quality of life of Hawaii residents through affordable renewable energy.

Sustainable Energy Hawai'i is in SUPPORT of HB 803 HD1.

Adequate infrastructure for zero-emission vehicles is needed to accelerate our transition away from our fossil fuels. Hawaii has the opportunity to achieve energy independence given our renewable energy resources. We have abundant sunshine, wind, geothermal, and ocean-based energy. This energy can meet our electricity need and power our ground transportation.

HB 803 HD1 will allow us to expand our charging infrastructure. This will help us meet the increasing demand for zero-emission vehicles and help us accelerate our transition to a clean energy and transportation future.

Thank you for this opportunity to testify.

A handwritten signature in black ink, appearing to read 'Richard Ha', written in a cursive style.

Richard Ha

Chair

Sustainable Energy Hawai'i



Email: communications@ulupono.com

SENATE COMMITTEE ON TRANSPORTATION
Tuesday, March 23, 2021 — 3:00 p.m.

Ulupono Initiative supports HB 803 HD 1, Relating to Electric Vehicles

Dear Chair Lee and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food; renewable energy and clean transportation; and better management of freshwater and waste.

Ulupono supports HB 803 HD 1, which authorizes each county to adopt ordinances to enforce section 291-71, Hawai'i Revised Statutes (HRS), including the establishment of penalties for failure to comply with its requirements or make reasonable efforts to maintain electric vehicle (EV) charging stations in working order. This bill also clarifies that certain enforcement officers may enter private property to enforce EV parking space violations and requires new EV charging systems (EVCS) installed pursuant to the EV charging system requirement to be at least Level 2 and network-capable. Additionally, the bill expands the required parking spots for EVs.

Ulupono supports the enforcement of the EV parking stall standards as stated in Section 291-71, HRS. EV parking and EVCS are critical to supporting the State's clean energy and transportation goals. Our research indicates that overall compliance to HRS section 291-71 is less than 30% statewide. Clarifying the authority to enforce this law with the proper EV charging infrastructure will undoubtedly provide much needed compliance.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

Investing in a Sustainable Hawai'i



**Hawaiian
Electric**

**TESTIMONY BEFORE THE SENATE COMMITTEE ON
TRANSPORTATION**

**HB 803, HD 1
Relating to Electric Vehicles**

March 23, 2021
3:00 PM, Agenda Item # 3
State Capitol, Conference Room 224 / VIDEO CONFERENCE

June Chee
Senior Program Manager, Electrification of Transportation
Hawaiian Electric Company, Inc.

Aloha Chair Lee, Vice Chair Inouye, and Committee Members,

My name is June Chee and I am testifying on behalf of Hawaiian Electric Company on HB 803 HD 1, Relating to Electric Vehicles. Hawaiian Electric Company supports the intent of this measure as it seeks to install additional and reliable electric vehicle (EV) infrastructure for EV drivers.

In 2019, Hawaiian Electric conducted its Electric Vehicle Critical Backbone Study, which looked at the forecasted need for public and private EV charging infrastructure in the next 10 years. The backbone study projected a need of seven-times more public charging by 2030 and an even greater need for private commercial and residential charging. This insight helped the Company focus its support and momentum for electrification of transportation through programs and initiatives such as EV-specific rates to encourage daytime charging, an electric bus make ready infrastructure pilot, a planned request to expand our public charging network, and our proposed Charge Ready Hawaii pilot. The Charge Ready Hawaii pilot will provide make ready infrastructure support for

EV charging systems to commercial properties, fleet owners, and multi-unit dwellings, which are key locations that serve EV charging needs of current and future EV drivers.

As the largest provider of electric vehicle fast charging in the state, Hawaiian Electric Company remains committed to EV strategies that are sustainable and help create a bridge to a cleaner future. Thank you for this opportunity to testify.



To: The Senate Committee on Transportation
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, March 23, 2021, 3pm

In support of HB803 HD1

Aloha Chair Lee, Vice Chair Inouye, and Transportation Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii's 6,000 members **support HB803 HD1** which authorizes counties to adopt ordinances to enforce charger installation and maintenance.

It is critical in our fight against the climate crisis that Hawaii transition to electric vehicles. This bill would help Hawaii move toward carbon neutrality by allowing counties to enforce laws to require maintenance of electric vehicle charging stations and parking space charging violations. It would also require new EV charging systems to be at least Level 2 and internet capable. Charge anxiety is a big a worry for EV-driving condo-dwellers, renters, and potential EV buyers. There needs to be readily available and reliable public EV chargers. This will enable all segments of our community to enjoy the economic, environmental and health benefits of driving EVs, while supporting Hawaii's decarbonization efforts. To achieve Hawaii's sustainable transportation and climate goals, we must decarbonize ground transportation as soon as possible. This bill supports those efforts.

Mahalo for the opportunity to testify in **support** of this very important legislation.

Sherry Pollack
Co-Founder, 350Hawaii.org



“Advancing the Commercial Property Management Industry through Education,
Networking and Advocacy”

Testimony to the Hawaii State Senate Committee on Transportation

March 23, 2021

3:00 P.M.

Hawaii State Capitol – Conference Room 224 and Videoconference

RE: HB803 HD1, Relating to Electric Vehicles

Aloha Chair Lee, Vice-Chair Inouye and Members of the Committee,

Thank you for the opportunity to submit testimony on House Bill 803 HD1.

We are the Building Owners and Managers Association of Hawaii (BOMA Hawaii) testifying in **opposition to HB803 HD1** which increases the number of required parking spots for electric vehicles from one space to five spaces.

BOMA Hawaii is a non-profit trade association with a membership that includes many commercial property owners and building managers. BOMA Hawaii supports energy efficient alternatives in transportation but opposes inflexibility in regulations. This bill authorizes each county to adopt ordinances to enforce section 291-71, HRS, including the establishment of penalties for failure to comply with its requirements or maintain electric vehicle charging stations in working order. It clarifies that certain enforcement officers may enter private property to enforce electric vehicle parking space violations. It also requires new electric vehicle charging systems installed pursuant to the electric vehicle charging system requirement to be at least Level 2 and network-capable. Most relevant to our BOMA Hawaii members, it increases the number of required parking spots for electric vehicles from one space to five spaces.

Small commercial businesses are the heart of Hawaii’s economy, and in times where they are financially fragile, we believe that we must do what we can to ensure their survival. Therefore, we ask that you refrain from increasing the parking mandate at this time. We worked very hard and collaboratively with policy leaders at the state and local level to address the majority of commercial buildings via a City ordinance. We respectfully request that you defer this measure.

Thank you for the opportunity to testify on HB803 HD1.

Sincerely,

Nicole Nakano
2021 BOMA Hawaii President

HB-803-HD-1

Submitted on: 3/22/2021 11:45:12 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ted Bohlen	Testifying for Climate Protectors Hawai'i	Support	No

Comments:

The Honorable Chris Lee, Chair, The Honorable Lorraine Inouye, Vice Chair, and Members of the Senate Committee on Transportation

From: Climate Protectors Hawai'i (by Ted Bohlen)

Re: HB803 HD1 RELATING TO ELECTRIC VEHICLES

Hearing Tuesday March 23, 2021, 3:00 p.m.

Aloha Chair Lee, Vice Chair Inouye, and Members of the Senate Committee on Transportation:

The Climate Protectors Hawai'i is a group focused on reversing the climate crisis and encouraging Hawai'i to lead the world towards a safe and sustainable climate and future. The **Climate Protectors Hawai'i STRONGLY SUPPORTS passage of HB803 HD1!**

As a tropical island State, Hawai'i will be among the first places harmed by the global climate crisis, with more intense storms, loss of protective coral reefs, food insecurity, and rising sea levels destroying our shorelines. We must do all we can to reduce our carbon footprint and become carbon negative as soon as possible.

Hawai'i must reduce greenhouse gas emissions from the transportation sector in order to meet its statutory target "to sequester more greenhouse gases than emitted as soon as practicable, but no later than 2045." HRS §225P-5. Robust electric vehicle charging infrastructure and its maintenance are critical to achieving the needed transition to zero emission vehicles.

This bill authorizes each county to adopt ordinances to enforce section 291-71, HRS, including the establishment of penalties for failure to comply with its requirements or maintain electric vehicle charging stations in working order. The bill clarifies that certain enforcement officers may enter private property to enforce electric vehicle parking space violations. It requires new electric vehicle charging systems installed pursuant to the electric vehicle charging system requirement to be at least Level 2 and network-

capable. The bill increases the number of required parking spots exclusively for electric vehicles and equipped with an electric vehicle charging station from one space to five spaces.

These measures are needed to achieve our climate goals! Please pass this bill! Mahalo!

Climate Protectors Hawai'i (by Ted Bohlen)



SENATE COMMITTEE ON TRANSPORTATION

March 23, 2021, 3:00 P.M.

Video Conference

TESTIMONY IN SUPPORT OF HB 803 HD1

Aloha Chair Lee, Vice Chair Inouye, and members of the Committee:

Blue Planet Foundation **supports HB 803 HD1**, which boosts the effectiveness of Hawai'i's existing law that requires parking lots with 100 or more stalls to have electric vehicle (EV) charging by clarifying that (1) the counties in Hawai'i have the authority to enforce the existing requirements, (2) chargers must be reasonably maintained, and (3) installed chargers must be at least Level 2 chargers and network-capable. The bill also appropriately increases the EV-charging stall requirement from one to five stalls.

This bill helps address one of the major challenges we face in transitioning to clean transportation: expanding public charging options for those that don't currently have access to EV charging at home or at work. **Nothing in this bill requires that businesses or public locations make EV charging available for free.**

Since 2012, Hawai'i law has required that publicly accessible parking lots with 100 or more stalls have a least one EV charging station.¹ An earlier version of the law, enacted in 2009, required that parking lots have an EV charging port per every 100 stalls, but the requirement was softened to its existing threshold in 2012. Although a number of retailers have stepped up to offer EV charging equipment to their customers, many other properties have not complied or have not kept up with maintenance of their charging equipment. The existing law lacks an enforcement provision to ensure that businesses with publicly accessible parking lots are in compliance with the requirements in HRS § 291-171. In fact, a study conducted by Blue Planet in 2017 found that only about 25% of properties that were required to have at least one charging station actually had one in working order. Although that percentage may have slightly changed or increased, we have not seen such a drastic increase in publicly accessible charging stations to suggest that we are anywhere near full compliance.

Electric vehicles are the fastest growing segment of new cars in Hawai'i, even during a global pandemic. Over the past year (February 2020 – February 2021), EV registrations in Hawai'i grew 23.5%, while registrations of gasoline-powered vehicles dropped 3.5%.² Even as the

¹ Hawai'i Revised Statutes (HRS) § 291-71 (2012).

² DBEDT Monthly Energy Trends, February 2021 (<http://dbedt.hawaii.gov/economic/energy-trends-2/>).

number of EVs in the state increases steadily, adequate and accessible vehicle charging infrastructure remains a roadblock to widespread EV adoption—a problem HRS § 291-171 sought to address when it was enacted in its original form by the legislature *twelve years ago*.

The low level of compliance and lack of upkeep of chargers required in HRS § 291-71 is at odds with the legislature’s intent for the law when it was first enacted in 2009. The legislature noted boldly in its preamble that “it is essential for the State to aggressively promote and develop alternatives to fossil fuel modes of transportation.”³ In addition, the legislature found that, “developing an electric vehicle infrastructure is a first and essential step toward the transformation of transportation in Hawaii” and that with “developing technology, along with a push by national and international automakers to expedite the production and supply of electric vehicles, Hawaii must be ready to embrace a new generation of highway transportation.”⁴

Unfortunately, we are far from the readiness envisioned back then. As legislators identified more than a decade ago, Hawai‘i needs a robust public charging network to provide convenient charging and clean mobility options that are available to all Hawai‘i residents, not just those that can charge their EVs at home. In addition, by adding a clarification that the installed chargers be at least Level 2 chargers, HB 803 can help ensure that publicly accessible charging stations offer meaningful charging options as opposed to “trickle charging” that is impractical for most drivers. And with network capabilities, Level 2 chargers provide an opportunity to use vehicle charging for utility demand response or load control programs.

House Bill 803 adds important clarifications to Hawai‘i’s existing charger requirement so that it may fully realize the original legislative intent behind the law. Furthermore, HB 803 HD1 appropriately updates the number of EV-charging stalls required by law for any publicly accessible parking lot of 100 stalls or more, increasing the requirement to five stalls. Updating the decade-old requirement is necessary to prepare Hawai‘i with charging infrastructure for the influx of EVs we can anticipate in the future, as governments and automakers across the globe are making bold commitments to phase out fossil fuel vehicles.

We respectfully request that the Committee forward HB 803 HD1.

Thank you for the opportunity to provide testimony.

³ Act 156, Session Laws of Hawai‘i 2009.

⁴ *Id.*

HB-803-HD-1

Submitted on: 3/22/2021 12:54:11 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
David Mulinix	Testifying for Our Revolution Hawaii	Support	No

Comments:

Aloha Committee,

On Behalf of Our Revolution Hawaii's 7,000 members and supporters statewide, we stand in STRONG SUPPORT of [HB803 County Maintenance Enforcement of EV Charging Stations](#).

Hawaii's lack of working electric vehicle charging stations is a real obstacle to EV adoption. Charge anxiety is a big a problem for potential EV buyers, EV-driving renters and condo-dwellers. To achieve Hawaii's sustainable transportation and climate goals, we must support efforts that help decarbonize ground transportation as soon as possible.

Please vote for and pass [HB803](#).

Mahalo for your consideration.

Dave Mulinix

Cofounder & Hawaii State Community Organizer

Our Revolution Hawaii



**TESTIMONY REGARDING HB 803, HD 1
Senate Committee on Transportation
March 23, 2021 at 3 PM**

Aloha Chair Lee, Vice Chair Inouye, and Members of the Committee:

Thank you for the opportunity to provide testimony in support of HB 803, HD 1, which includes provisions regarding electric vehicle (EV) charging enforcement, charging standards, and penalties. In particular, we are supportive of the HD 1 amendment that updates existing law by requiring places of public accommodation with at least 100 parking spaces to reserve five (instead of one) of these spaces for EV charging.

Eight years have passed since this original requirement took effect and the penetration of EVs in the state, just in the past year alone, has grown substantially. As manufacturers introduce more and more EVs to the market, it is sensible and prudent for the Legislature to revisit this requirement, particularly since in our experience, charging stations in commercial areas correlate with increase consumer spending and economic activity.

Thank you for the opportunity to support this important measure.

Brookfield Properties

March 23, 2021

Sen. Chris Lee, Chair

Sen. Lorraine R. Inouye, Vice Chair

To the esteemed members of the Senate Committee on Transportation:

We write on behalf of Brookfield Properties' retail group ("Brookfield") regarding House Bill 803, HD1 ("HB803"), currently pending before the Senate Committee on Transportation. On Brookfield's behalf, we would respectfully request that this legislation not be passed in its current form. We instead propose the exploration of alternative solutions that strike the right balance between fostering electric vehicle use in the State—a goal that Brookfield readily shares—while also accounting for the burdens that these requirements will impose on local businesses.

Brookfield owns and manages the retail, medical, and office components of the Ala Moana Center in Honolulu, Whalers Village in Lahaina, and Prince Kuhio Plaza in Hilo. At its Hawaii properties and throughout its nationwide portfolio of shopping centers, Brookfield maintains a deep commitment to environmental sustainability for the benefit of the communities we serve, the global environment, and the valued team members we employ. To that end, we have made tremendous progress towards achieving our 2022 sustainability goals: so far, we have made a 47.5% reduction in common area grid purchased electricity consumption (using a 2014 baseline), a 30.6% reduction in controllable greenhouse gas emissions, an 11.4% reduction in water consumption, and a 39% annual waste diversion rate. Brookfield's most recent sustainability report provides additional details regarding our national sustainability efforts and is attached to this testimony for your reference.

At Ala Moana Center alone, Brookfield has implemented a variety of sustainability measures. The shopping center has one of the largest on-site solar system arrays in the State, producing over 5.8 million kilowatt hours of renewable energy in 2019. We have substantially reduced onsite energy consumption through the use of LED upgrades, chiller replacements, and thermoplastic polyolefin white roofs. We have also installed a Building Automation System with integrated fault detection and analytics that control the lighting and HVAC usage at the center. This system alone enabled Ala Moana to reduce its common area grid consumption by 14% in 2019 compared to the year before.

At its three centers in Hawaii, Brookfield already reserves at least 14 parking stalls for electric vehicle parking and recharging stations. Brookfield spent over \$975,000 to purchase and install this equipment. Because we lack the required in-house expertise, Brookfield also pays an outside vendor over \$54,000 per year to service and maintain these stations.

While we are genuinely committed to environmental sustainability and are open to contributing to the State's efforts, HB803 poses a variety of concerns for Brookfield and similarly situated property owners:

- ***HB803 imposes major capital outlays on property owners:*** HB803’s requirement that 5 out of every 100 of a business’s parking spaces be equipped with an electric vehicle charging station imposes a significant financial burden on property owners. Between Brookfield’s three Hawaii properties, for example, we have over 14,320 parking spaces. Brookfield will thus be required to dedicate approximately 716 of its parking spaces to charging stations. Using Brookfield’s capital outlays for just 14 parking spaces as a guide, it could expect to pay over \$45,000,000 to purchase the additional mandated stations.
- ***HB803 will require substantial maintenance costs for most properties:*** Neither Brookfield nor similarly situated property owners are likely to have the in-house capacity to service and maintain these charging stations. Using its annual servicing costs for its 14 stations as a guide, Brookfield could expect to pay over \$2,600,000 per year to maintain 716 stations.
- ***HB803 will require Brookfield and its tenants to pay substantially higher electricity bills.*** Brookfield anticipates that it will require 7 megawatts of additional capacity to power over 700 new charging stations. This, in turn, would entail an additional \$2,400,000 in electricity billings annually. This figure also does not account for the additional capital outlays required to facilitate the 7-megawatt capacity expansion, which again would be paid, at least in significant part, by Brookfield.
- ***HB803 does not account for the realities of electric vehicle use in the State:*** Recent reports indicate that the approximately 13,000 electric vehicles on the road in Hawaii comprise just 1% of the more than one million registered passenger vehicles in the State.¹ Requiring properties to increase their electric vehicle charging capacity over five times that amount—and in less than four years—thus imposes a variety of challenges that may not even address the realities of the electric vehicle market. For one, the current vehicle charging infrastructure at Whalers Village and Ala Moana are only utilized for vehicle charging at approximately 20% of daily capacity using a 24-hour period. It is therefore unclear how the substantial expenditures involved in purchasing and maintaining this equipment would be justified. It is doubtful, for instance, that the mere presence of additional charging stations at Ala Moana or Whalers Village will induce customers to purchase electric vehicles. Also unclear is whether the technology behind charging vehicles will change in the near future, a likely possibility. The advent of new battery and charging technologies that would obviate the need for charging a vehicle for multiple hours would render Brookfield and similar property owners’ expenditures superfluous.
- ***HB803 will potentially reduce the number of parking spots available for shoppers:*** Electric charging stations frequently cannot fit into a single parking space depending on the technology used and the location of the parking stall. As a consequence, Brookfield will likely have to reduce the overall availability of parking for its customers, especially when HB803 reserves these parking spaces exclusively for electric vehicle use. Brookfield also seconds the concerns of other retailers—as reflected in the Retail Merchants of Hawaii’s March 16, 2021 testimony—that drivers who are not shopping at our properties will use the spaces solely for recharging purposes, thereby further

¹ See - <http://dbedt.hawaii.gov/economic/energy-dashboard/>

reducing available parking for customers. This concern is compounded by the fact that recharging an electric vehicle typically takes multiple hours.

- ***HB803 risks subjecting property owners to differing and uncertain regulatory standards:*** HB803 leaves it to each county to adopt ordinances establishing their own penalties for noncompliance with the law’s requirements or a property owner’s failure to ensure that the charging stations are in working order. We are concerned that this provision will lead to inconsistent regulatory standards across multiple properties. Relatedly, the bill does not say how local parking ratio requirements would be impacted or whether the charging station parking spaces would count towards those requirements. These requirements could also be subject to multiple standards in different counties.
- ***HB803 is more stringent than its companion bill.*** As a final point, we note that HB803 is more stringent than its companion bill, SB 756, SD2, HD1. HB803 does not allow for a “reasonableness” standard to ensure that charging stations are in working order, but instead imposes a near strict liability standard. It also does not allow for a ramp-up period to achieve the 5% capacity, whereas SB 756, SD2, HD1 at least allows owners until January 1, 2025 to comply.

We sincerely appreciate the intent behind HB803, the State’s commitment to environmental sustainability, and the difficulty required in achieving the right policy balances. That said, we respectfully submit that this bill imposes too much of a financial, practical, and regulatory burden on certain commercial landowners that are not in the business of refueling or recharging passenger vehicles. Given these realities, we would instead propose that alternative initiatives be explored:

- Providing tax incentives for installing additional charging stations at commercial properties could strike the right balance between consumer demand for electric vehicle charging stations, a property owner’s desire to attract and accommodate those customers, and sharing in the cost of building and maintaining the charging stations. This approach might also allow the expansion of electric charging stations to occur more organically than imposing a 5% quota that is orders of magnitude higher than the current number of electric vehicles in the State. It would also provide property owners and regulators more flexibility if and when battery and charging technologies change.
- Having taxpayers contribute toward neighborhood charging stations—or to receive similar tax incentives for neighborhood or home-use stations—would seem a more sensible approach to fostering the use of electric vehicles. That is, it would make sense for commercial property owners to build *some* additional charging stations alongside a variety of other viable locations, including in local neighborhoods, apartment and condominium complexes, resorts, roadside stations, airports, government buildings, and office buildings.
- At the very least, there should be a cap on the absolute number of parking spaces exclusively dedicated to charging stations. At Ala Moana, for example, this bill could require the center to dedicate 555 spaces to charging stations. By any measure, that simply does not account for the current realities of the electric vehicle market in the State.

CHICAGO OFFICE

350 N. Orleans, Suite 300, Chicago IL 60654
T +1 312.960.5141 BrookfieldPropertiesRetail.com

We respectfully urge the Committee to take these proposals into consideration, and we are happy to supply additional information at the Committee's request. We otherwise thank everyone for their time and consideration.

Sincerely,

/s/ Brian McCarthy

Brian McCarthy
Chief Administrative Officer

/s/ Jacob Wilson

Jacob Wilson,
Vice President and Senior General Manager, Ala Moana Center

/s/ Christopher White

Christopher White
Senior General Manager, Whalers Village

/s/ Daniel Kea

Daniel Kea
Manager, Prince Kuhio Plaza

RETAIL GROUP

SUSTAINABILITY REPORT | OWNING OUR CORPORATE IMPACT



COMMUNITY GARDEN AT RIDGEDALE CENTER, MN

TABLE OF CONTENTS

03 MESSAGE FROM OUR CEO

04 WHO WE ARE

Governance

U.S. Retail Properties Map

06 2019 HIGHLIGHTS + PERFORMANCE

09 OUR ENVIRONMENT

Energy Efficiency at Ala Moana Center

Solar

Case Study: The Mall in Columbia

Water Conservation at Mayfair Mall

Climate Change

Case Study: The SoNo Collection

20 OUR COMMUNITY

Community

Ridgedale Center Summer Garden

Food Donation in Atlanta

Employees

Stakeholder Engagement

26 AWARDS

28 APPENDICES

MESSAGE FROM OUR CEO

Our shared experience in 2020 clearly affirms our corporate responsibility to promote sustainable initiatives for the benefit of the communities we serve, the global environment and the valued team members we employ. The socioeconomic impact and business disruption resulting from the COVID-19 pandemic, civil unrest and natural disasters this year are yet to be fully realized. However, the resiliency of our strong company culture, combined with our collective industry experience, enable us to guide the organization through these challenging times and position our high quality real estate portfolio for the future. We are focused on evolving our strategic initiatives to meet the demands of changing consumer behavior, adapting to new environmental conditions and limiting the footprint of our business operations. Our commitment to Environmental, Social and Governance (ESG) principles are an integral part of our pursuit to deliver value to all of our stakeholders.

We are proud of the progress we made last year towards our 2022 sustainability goals. In 2019, we saw a 31% reduction in controllable greenhouse gas (GHG) emissions against a 2014 baseline. This substantial reduction is the result of an ongoing sustainability program which includes solar installations, smart building analytics, and efficiency upgrades. Our propensity to invest in proven and emerging technologies to drive operational efficiencies continues to demonstrate measurable benefits.

In 2019, we implemented multiple initiatives that go beyond our core sustainability goals. These initiatives cover climate change resilience, community engagement, and collaboration with our stakeholders to ensure the alignment of our sustainability objectives. We have redefined the interactions we have with our customers, including opening one of the first community gardens at a U.S. mall property at Ridgedale Center in Minneapolis and implementing a food waste pilot program across our Atlanta properties.

The company celebrated the grand opening of our new 700,000-square-foot mall development, The SoNo Collection in South Norwalk, Connecticut. From the initial site selection with the remediation of a former brownfield site, to the minimization of toxic materials and waste during the construction process, our team realized sustainable principles across the development process.

Our colleagues' outstanding commitment to sustainable property management has been demonstrated through our achievements in green building certificates. In less than one year, we have certified over 34 million square feet of our portfolio through the Institute of Real Estate Management's "Certified Sustainable Property" program.

We are pleased to present our 2019 Sustainability Report, providing an overview of our initiatives throughout the year and our ambitions for the future.

We hope you enjoy,



Jared Chupaila
CEO
Brookfield Properties' retail group

WHO WE ARE

Brookfield Properties is a fully integrated, global real estate services company that provides industry-leading portfolio management and development capabilities across the real estate investment strategies of Brookfield Asset Management—a global alternative asset manager with over \$500 billion in assets under management.

Brookfield Properties develops and manages premier real estate with a focus on maximizing the tenant experience in addition to the investment and operational performance of the asset. We also focus on integrating leading-edge real estate technologies, which enables us to be at the forefront of innovation and sustainability—benefiting not only our tenants, residents and business partners, but also the communities in which we operate.

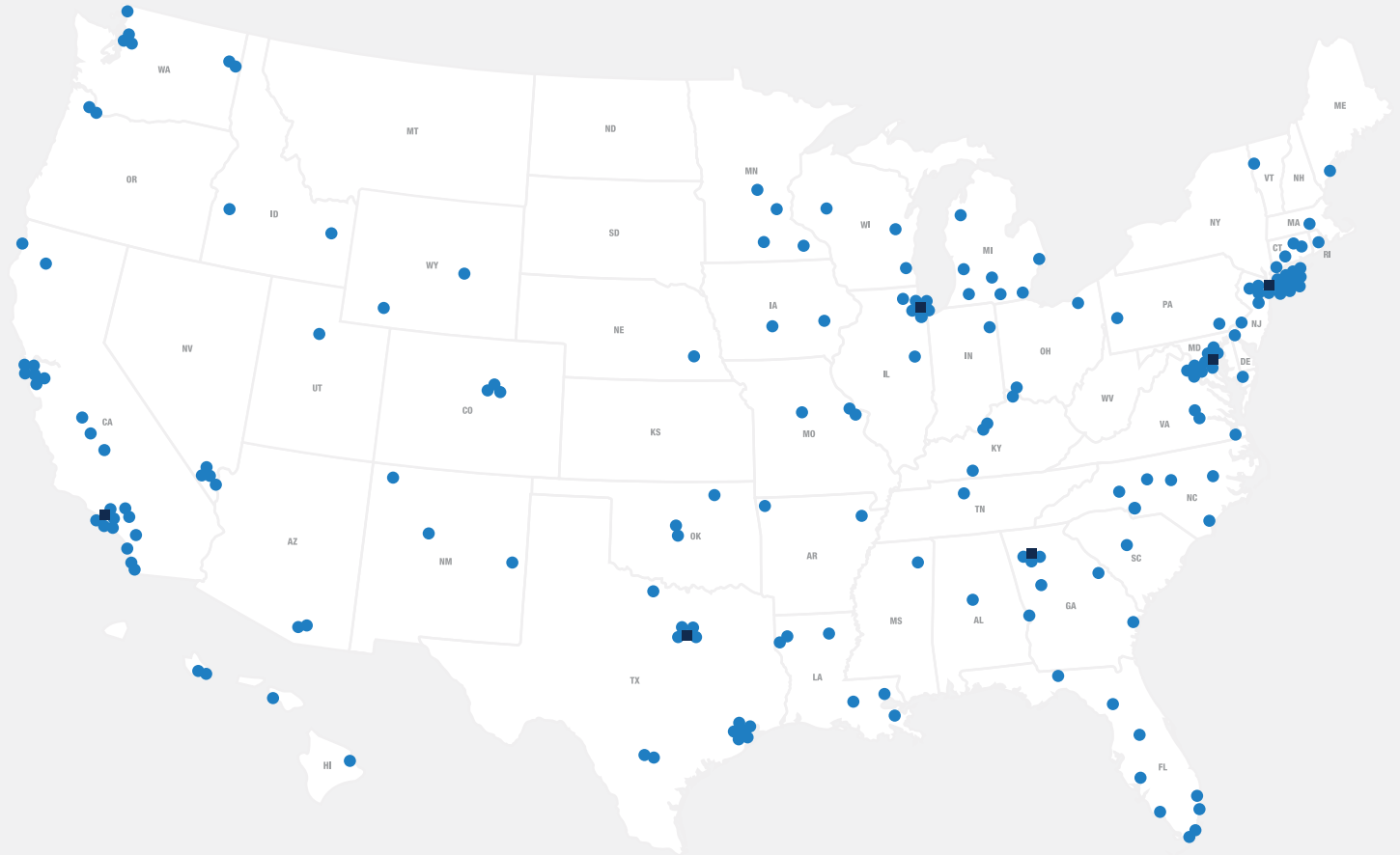
This report is specific to the sustainability performance of Brookfield Properties' U.S. retail team. The terms "we", "us", and "our" may also be used. As of December 31, 2019, Brookfield Properties operated, entirely or with joint venture partners, over 170 retail properties located throughout the United States. Our premier shopping destinations are comprised of approximately 150 million square feet of gross leasable area (GLA).

Brookfield Properties' retail group is headquartered in Chicago and owned by affiliates of Brookfield Asset Management.

GOVERNANCE

Environmental, Social, and Governance (ESG) initiatives are governed by executive management within Brookfield Properties' retail portfolio, in alignment with Brookfield's ESG Principles. This ensures that sustainability is a priority and is explicitly addressed in our long-term business strategy and risk management.

U.S. RETAIL PROPERTY MAP



● Brookfield Properties' retail properties

■ Brookfield Properties' retail group Regional Offices

Atlanta, GA
Chicago, IL
Columbia, MD
Dallas, TX
Los Angeles, CA
New York, NY

WE CONTINUE TO IMPLEMENT INITIATIVES THAT GO BEYOND OUR CORE SUSTAINABILITY GOALS



2019

HIGHLIGHTS AT A GLANCE



Our on-site solar arrays generated over 73 million kilowatt hours (kWh) of renewable electricity, or enough energy to power nearly 6,000 homes.



Reduced common area grid-purchased electricity consumption by 5.5%.¹



2.8% decrease in our controllable (Scope 1 and 2) greenhouse gas emissions.¹



Added an additional 30 properties to our smart analytics program, which monitors over 120,000 Heating, Ventilation, and Air Conditioning (HVAC) data points, utilizing “Rules” that define how equipment should be running.



Doubled the number of electric vehicle charging points across our portfolio. Our charging network provided over 5.5 million free electric miles to our customers.



Opened our new mall, The SoNo Collection, in South Norwalk, Connecticut. Designed with multiple sustainability measures, the mall acts as a gathering place for the community with over one million visitors in the first two months.



Over 34 million square feet certified to the Institute of Real Estate Management’s “Certified Sustainable Property” program, demonstrating best practices in sustainable property management.



Implemented several notable firsts for our communities, including one of the first community gardens at a U.S. mall at Ridgedale Center in Minnesota and our first tenant food waste pilot program across our Atlanta properties.

2019 PERFORMANCE

2022 GOALS¹

ACHIEVE A 47.5% REDUCTION IN (LANDLORD-MANAGED) COMMON AREA GRID PURCHASED ELECTRICITY CONSUMPTION BY 2022.

REDUCE CONTROLLABLE (SCOPE 1 AND 2) GREENHOUSE GAS EMISSIONS BY 40% BY 2022.

REDUCE WATER CONSUMPTION BY 12% BY 2022.

ACHIEVE AN ANNUAL WASTE DIVERSION RATE OF 50% BY 2022.

PROGRESS THROUGH 2019

↓ 37.3%
REDUCTION
IN 2019

↓ 30.6%
REDUCTION
IN 2019

↓ 11.4%
REDUCTION
IN 2019

39%
DIVERSION
IN 2019



79%
COMPLETE
TOWARD
2022 GOAL



77%
COMPLETE
TOWARD
2022 GOAL



95%
COMPLETE
TOWARD
2022 GOAL



78%
COMPLETE
TOWARD
2022 GOAL

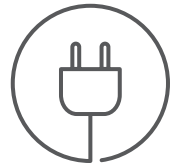
¹ All goals continue to use 2014 as our baseline year for progress monitoring. Historical comparisons are made on a like-for-like basis.

OUR ENVIRONMENT

WE UNDERSTAND THE IMPORTANCE OF BUILDING A RESILIENT PORTFOLIO



ENERGY EFFICIENCY AT ALA MOANA CENTER



ALA MOANA CENTER, OAHU, HI

Ala Moana Center, located on the island of Oahu, has implemented multiple measures to enhance sustainable operations. This has included the installation of on-site solar generation, with the center producing over 5.8 million kilowatt hours of renewable energy in 2019. With this capacity, Ala Moana Center boasts one of the largest on-site solar arrays in the state of Hawaii.

Ala Moana Center continues to reduce its energy consumption through LED upgrades, chiller replacements, and TPO (thermoplastic polyolefin) white roofs. A Building Automation System with integrated fault detection and analytics controls the lighting and HVAC at the center. The ability to see and correct anomalies in real time significantly increases operational efficiency. With all of these measures in place, Ala Moana Center reduced its common area grid consumption by 17% in 2019, when compared to 2018.

SOLAR



As leaders in solar development, we continue to invest in installations that reduce our carbon footprint and generate financial savings.

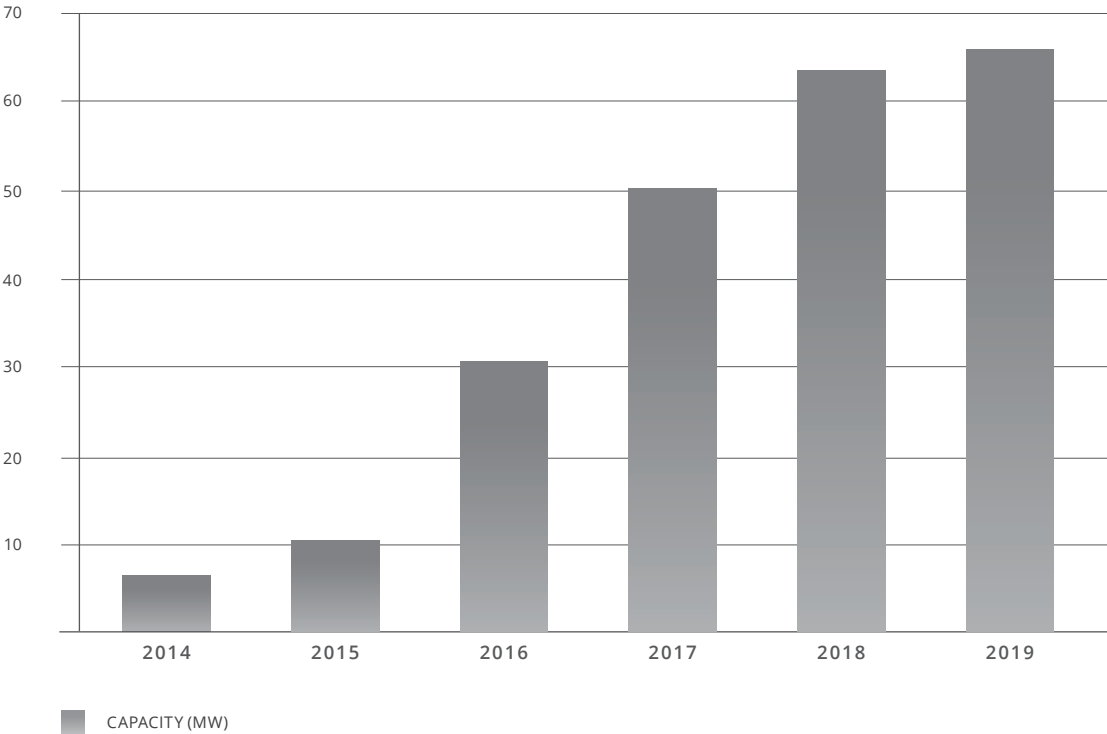
69 SOLAR PROJECTS AT **55** PROPERTIES WITHIN THE PORTFOLIO

66 MEGAWATTS OF ON-SITE SOLAR CAPACITY

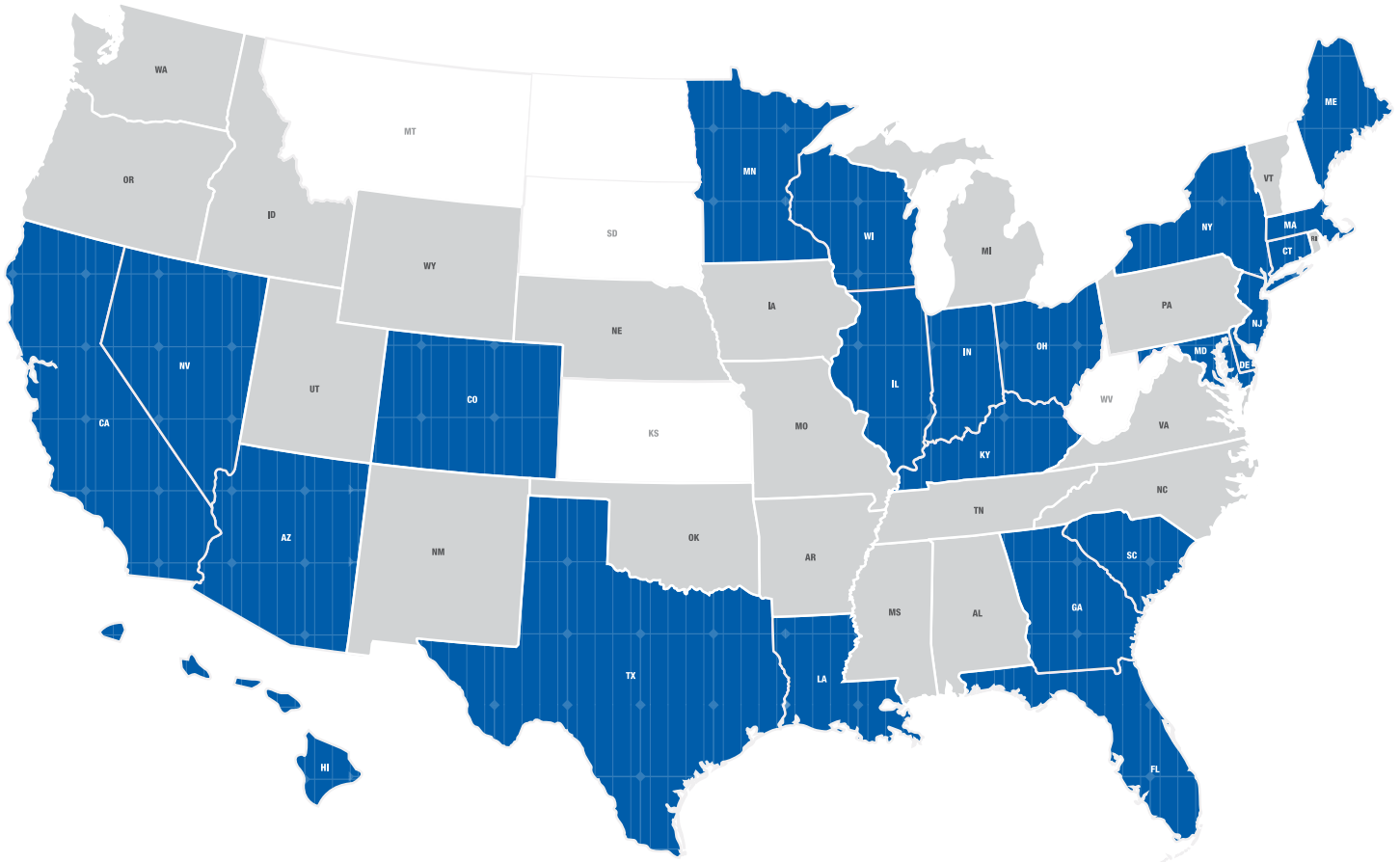
73 MILLION KILOWATT HOURS OF RENEWABLE ELECTRICITY IN 2019

Our dedication earned us a sixth-place ranking among all U.S. companies for on-site solar capacity in the 2018 Solar Energy Industries Association “Solar Means Business” Report, and the highest rank for a mall property operator. We are committed to leveraging the business case for expanding on-site solar capacity and further reducing our grid electricity consumption.

CUMULATIVE INSTALLED SOLAR CAPACITY



RETAIL LOCATIONS WITH SOLAR ARRAYS



- States with Brookfield Properties' retail solar properties
- States with Brookfield Properties' retail property locations

THE MALL IN COLUMBIA



THE MALL IN COLUMBIA, COLUMBIA, MD

The Mall in Columbia is a prominent shopping destination in Columbia, Maryland, with over a million square feet of retail space and an impressive tenant mix including over 200 retailers. The property operates as a vibrant community center focusing on continued sustainable enhancements.

We understand the importance of sustainability at our properties—not only positively impacting the environment, but simultaneously improving our customer experience. At The Mall in Columbia, this includes small yet impactful decisions, such as switching to green cleaning products, and larger-scale projects such as:

- A multi-year project to replace all acrylic skylights with thicker, double-layer laminated insulating glass skylights to enhance energy efficiency, which is expected to be completed in 2020

- The installation of over 7,500 solar panels from 2016 to 2018, generating over 2.5 million kilowatt hours of renewable electricity in 2019
- Upgrading chiller systems to state-of-the-art magnetic bearing chillers, representing a 22% efficiency improvement over standard high-efficiency chillers. The project, expected to be completed in 2020, also includes high-efficiency pumps and advanced building controls, resulting in a system that will drive future operating efficiency

27% REDUCTION IN TOTAL GRID PURCHASED ELECTRICITY¹

For the 47th year in a row, The Mall in Columbia hosted the Howard County Public School Art Exhibit in 2019. This exhibit was held throughout the common areas of the mall and featured over 3,000 works of art from 72 Howard County public schools.

Additionally, Family Fun Day has been in existence at The Mall in Columbia for nearly 25 years—a long-standing tradition and family favorite. This event is free to the community, where parents and caregivers alike are welcome to bring children to participate in the activities while learning in a fun environment. The activities include singalongs, story time, magic acts, puppet shows, and more. Miss Julie, a retired schoolteacher, has hosted this beloved event since its inception.



FAMILY FUN DAY AT THE MALL IN COLUMBIA

WATER CONSERVATION AT MAYFAIR MALL



MAYFAIR MALL, , WAUWATOSA, WI

Mayfair Mall provides Wisconsin shoppers with a unique and inviting retail experience. Located near the shores of Lake Michigan, many rivers, and waterways, Mayfair's proximity to freshwater resources reinforces the property's commitment to sustainability. Water conservation initiatives at the property include a multi-zone irrigation system that utilizes non-potable water from an on-site well to irrigate based on schedule and precipitation, as well as the installation of high-efficiency hot water boilers.

Mayfair also utilizes Orbio, a device which converts water, electricity, and salt into effective cleaners and disinfectants. This process reduces the negative environmental impacts associated with chemical-based cleaning products, such as chemical run-off. Through these positive initiatives Mayfair Mall reported a 27% decrease in water consumption in 2019 compared to 2014.

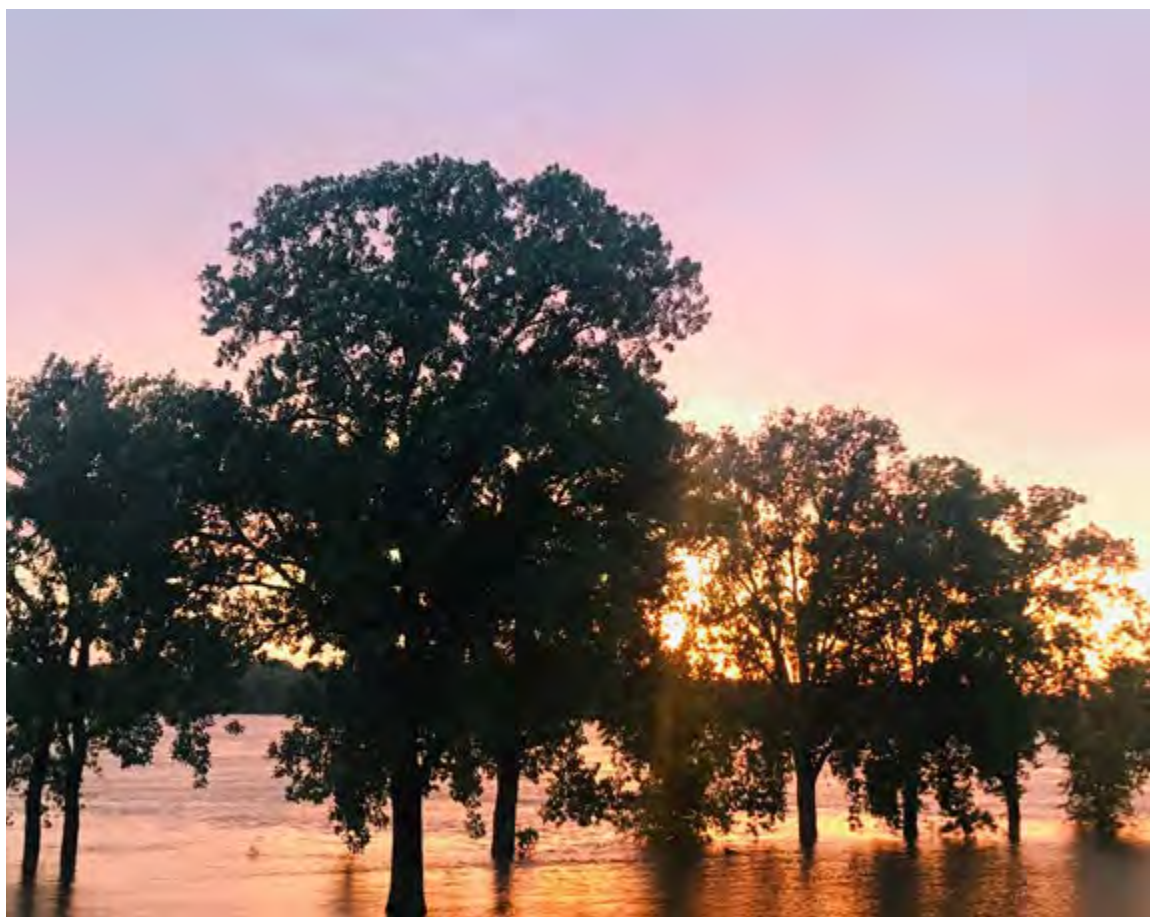
CLIMATE CHANGE



Unpredictable climate conditions continue to grow in significance. As one of the leading retail portfolios in the United States, we understand our role in climate change mitigation across our operations.

In concurrence with Brookfield Properties' overall strategy, we are working to align with the Taskforce for Climate-related Financial Disclosure (TCFD) framework. We see this voluntary framework as a successful way to display our climate-related risk disclosure.

Our portfolio is well-positioned to adapt with a transition to a low-carbon economy. We have undertaken multiple efficiency initiatives to lower our carbon emissions, such as HVAC upgrades and smart analytics, as well as lessening our grid dependence through solar installations. We will continue to explore opportunities across our assets to maintain a resilient carbon efficient portfolio.



THE SONO COLLECTION

CASE STUDY



THE SONO COLLECTION, NORWALK, CT

The SoNo Collection is the newest addition to our portfolio. This spectacular 700,000-square-foot center was designed with a contemporary shopping experience in mind for the community of South Norwalk, Connecticut. The center offers a unique mix of retail, dining, and entertainment options, and highlights art installations from local and national artists. While creating new and unique experiences for Fairfield County shoppers, the center acts as a gathering place for the community and is well-positioned to continue our successful track record of sustainable stewardship.

The SoNo Collection has integrated sustainable practices since its initial planning stages, and was built on a remediated brownfield site. Our focus continued through construction, as we aligned our sustainability goals with contractors to reduce the use of toxic materials and minimize construction waste. Air quality was a priority, with work scheduled to ensure that interior finishes were kept in separate dry areas to reduce moisture-related issues.

Minimizing our impact on the surrounding area was a key consideration in development. The property was designed to limit light pollution and enhance pedestrian access. Our contractor also implemented a Stormwater Pollution Prevention Plan, limiting toxins from entering the surrounding water systems.

The SoNo Collection is designed to operate efficiently and sustainably. We have included multiple measures, from zoning and moisture sensors minimizing water usage, to an energy-efficient design providing 30% – 40% more insulation than required by LEED.

LIMIT LIGHT POLLUTION



ENHANCE PEDESTRIAN ACCESS



ENERGY EFFICIENT



MINIMIZE WATER USAGE



NOSTALGIC GAMING GATHERING PLACE AT THE SONO COLLECTION, NORWALK, CT

OUR COMMUNITY

WE CONTINUOUSLY LOOK FOR WAYS
TO BETTER THE COMMUNITIES OUR
PROPERTIES SERVE.



COMMUNITY



We are committed to supporting the neighborhoods which we are fortunate to serve. Across our portfolio, we strive to create a lasting benefit through corporate charity initiatives and property-led community events. In 2019 alone, our retail assets hosted over 500 community events.

In the same year, our corporate office showed its support for multiple nonprofit groups that focus on educational needs within the Chicagoland area. This included educational donations and support for Countee Cullen Elementary School, employee volunteer sessions with Open Books, and participation in the Ronald McDonald House Pop Tab program.

Throughout our second year of supporting Countee Cullen Elementary School we:

- Hosted the school's Beta Club, which celebrates high-performing students, at our offices for career introductions and interactive activities

- Built 30 bikes as a team exercise, which were donated to the school during our bi-annual operations conference. This incentivized students who received perfect attendance and/or the highest standardized test scores
- Participated in a career day which allowed a number of our employees to explain their jobs and professional paths
- Donated Office Depot® Gift Cards to each teacher before the start of the school year

SUMMER GARDEN AT RIDGEDALE CENTER, MINNETONKA, MN

In 2019, Ridgedale Center partnered with the University of Minnesota's "Master Gardener" Program to open one of the first community gardens at a U.S. mall property. The garden features native plants, including two different varieties of Minnesotan apple trees which were developed, in part, by the University of Minnesota. Customers are welcome to harvest and enjoy items from the garden.

In addition to maintaining and enhancing the garden, we hope to further engage the local community in sustainability through additional initiatives, such as the establishment of an organic recycling program at the property.

In 2019, our Summer Garden Celebration showcased the opening of the garden with multiple community events, including a floral mural painted by Atlanta-based artist Niki Zarrabi, live modeling, and a succulent bar.



FOOD DONATION IN ATLANTA



In addition to improving our waste operations, 2019 marked the commencement of a food waste pilot program at three of our properties in the Atlanta market—Cumberland Mall, Perimeter Mall, and Northpoint Mall. We engaged with food tenants at our malls to promote the donation of surplus food to local charities as an alternative to merely discarding it.

This program connects food tenants with local charities and creates an easy and direct way to donate leftover food to communities in need. Through our pilot program we've contributed to three organizations in the area: I Care Atlanta, Second Helpings, and 7 Bridges to Recovery. We are looking to expand this program to other markets and are excited by the additional opportunity to positively impact the communities we serve.

EMPLOYEES



We embrace our core values of Humility, Attitude, Do the Right thing, Together, and Own It. These principles define our culture and inspire how we do business. We strive to have a positive impact on our employees and the work they do, creating a culture of inclusivity and growth.

We recognize the importance of continual improvement. To gauge our progress, we distributed an all-employee engagement survey in 2019, and identified key engagement drivers from the results of the 75% of employees who participated. These drivers have been shared throughout all levels of the organization, with each department working together to create team goals. This employee feedback, alongside wider corporate goals, will help positively shape our organization.

Providing resources for the professional development of our employees is highly important to Brookfield Properties. In 2019 we utilized LinkedIn Learning, an online e-learning platform that has thousands of courses on many topics such as how to be a better communicator, Excel tips and tricks, skills for leadership, and much more. Since its launch in May 2019, employees have completed more than 600 courses and watched 22,000 videos.

Maintaining a diverse workforce and providing an inclusive environment where all ideas are heard is a priority to us. The following tables represent the breakdown of our employees as of December 31, 2019.

TOTAL WORKFORCE

STATUS	TOTAL	% DISTRIBUTION
FULL TIME	2,004	99.21%
PART TIME	16	0.79%
TOTAL	2,020	100%

TENURE DISTRIBUTION

YEARS	TOTAL	% DISTRIBUTION
0 - 5	1,038	51.39%
5 - 10	373	18.47%
10 - 15	216	10.69%
15 - 20	159	7.87%
20+	234	11.58%
TOTAL	2,020	100%

EMPLOYMENT GENDER BREAKDOWN

STATUS	TOTAL	FEMALE	MALE
FULL TIME	2,004	48.85%	51.15%
PART TIME	16	62.50%	37.50%
TOTAL	2,020	49.96%	51.04%

SENIOR LEADERSHIP GENDER BREAKDOWN

TITLE	TOTAL	FEMALE	MALE
SVP and above	37	41%	59%

STAKEHOLDER ENGAGEMENT¹



Stakeholder input is key to the future strategy of our business. During 2019, we solicited feedback from our stakeholders to understand their Environmental, Social, and Governance (ESG) interests. The results were used to prioritize Brookfield Properties' ongoing sustainability strategy.

We selected 10 significant ESG topics aligned to the UN's Sustainable Development Goals. The key stakeholders engaged throughout this process include joint venture partners, vendors, tenants, employees, and executive leadership. The results include responses from nearly 1,000 individuals.

An outline of the results is presented in the graph below.



Our analysis highlighted energy efficiency, air quality, corporate governance, and diversity as most material to our stakeholders, in addition to having a high impact to our business. The results show changes in stakeholders' perception since our last survey in 2017, with diversity and governance increasing in importance.

We will continue to engage with stakeholders to ensure that we are well-positioned to meet their needs, using the results of this analysis to further develop our ESG strategy.

¹This survey was conducted in 2019, before the COVID-19 pandemic. We would expect the results of this survey to alter with the current climatic conditions.

AWARDS

WE ENGAGE WITH OUR STAKEHOLDERS TO CREATE POSITIVE ENVIRONMENTS FOR ALL



AWARDS

INSTITUTE OF REAL ESTATE MANAGEMENT (IREM) CERTIFIED SUSTAINABLE PROPERTIES (CSP) PROGRAM

2019 was a year full of recognition for our property teams' commitment to sustainable operations. The results of their hard work and dedication were submitted to IREM's CSP program, which provides a meaningful distinction for existing buildings and, upon certification, highlights our commitment to sustainable property operation. This holistic program allows our properties to demonstrate success in five categories across energy, water, recycling, health, and purchasing.

In less than one year we have certified:

29 ASSETS + **34** M SQUARE FEET + **25** % OF OUR PORTFOLIO



OAKBROOK CENTER, OAKBROOK, IL



GRESB GREEN STARS

Sixth consecutive GRESB Green Star in 2019.



SEIA RANKING

Sixth-place ranking among all U.S. companies for on-site solar capacity in the 2018 Solar Energy Industries Association "Solar Means Business" Report, and the highest rank for a mall property operator.



TOP-RANKED SECURITY PROGRAM

Named by Security Magazine in 2019 as having the top-ranked security program in the Real Estate/Property Management Sector for the ninth year.



ICSC 2019 MAXI AWARDS

Winner of 7 ICSC 2019 Maxi Awards—6 silver and 1 gold. This included Santa's Vintage Airstream Trailer at Oakbrook Center in Oakbrook, Illinois, for their work on creating a sustainable Santa experience by repurposing an old airstream trailer.

APPENDICES

ENERGY CONSUMPTION

Sustainability information is reported in line with the GRI Standards 2016. All data covers the 2014 annual year (January 1, 2014 – December 31, 2014) through 2019 annual year (January 1, 2019 – December 31, 2019). The reporting boundary has been defined as any asset where we hold operational control, in the responsibility for the provision of utilities and waste management.

Absolute data covers any assets that were managed (and under our operational control) at any point within the reporting period (2014 – 2019).

	ABSOLUTE ENERGY CONSUMPTION (KWH)					
	2014	2015	2016	2017	2018	2019
COMMON AREA (GRID)	508,361,425	465,654,729	354,178,323	323,312,929	315,304,684	298,881,079
TENANT USE (GRID)	737,536,877	713,215,756	719,412,640	674,886,698	646,386,299	612,709,513
NATURAL GAS ¹	180,638,448	168,288,352	150,813,481	158,925,461	167,556,779	170,572,102
SOLAR	7,379,179	7,766,816	27,859,932	37,931,139	57,584,351	73,657,156
TOTAL	1,433,915,929	1,354,925,653	1,252,264,376	1,195,056,227	1,186,832,112	1,155,819,851

Like-for-like includes any properties which were owned for the full reporting period (2014 – 2019). The table below shows like-for-like electricity consumption, covering 142 properties.

	LIKE-FOR-LIKE ENERGY CONSUMPTION (KWH)					
	2014	2015	2016	2017	2018	2019
COMMON AREA (GRID)	443,728,032	407,483,866	333,954,962	305,980,436	294,411,569	278,295,894
TENANT USE (GRID)	693,601,033	679,292,475	691,721,168	661,044,122	632,185,499	600,747,491
NATURAL GAS ¹	165,430,842	155,972,674	142,065,825	152,536,881	164,040,631	166,216,734
SOLAR	7,379,179	7,766,816	27,859,932	37,931,139	57,584,351	73,657,156
TOTAL	1,310,139,086	1,250,515,831	1,195,601,888	1,157,492,578	1,148,222,050	1,118,917,276
TOTAL - LIKE-FOR-LIKE CHANGE, 2019 VS 2014 (%)						-14.6%

GREENHOUSE GAS EMISSIONS

For this report, Scope 1 (direct) emissions and Scope 2 (indirect) emissions are from sources within our operational control, while Scope 3 covers emissions from sources we do not directly control.²

The table below shows absolute greenhouse gas emissions from 2014 to 2019 (calendar years) for all properties owned at any point within the reporting period.

ABSOLUTE GHG EMISSIONS BY TYPE (METRIC TONNES CO ² EQUIVALENT)						
GHG TYPES	2014	2015	2016	2017	2018	2019
SCOPE 1	34,921	33,316	30,506	32,244	32,330	34,416
SCOPE 2	206,565	188,387	158,992	146,154	142,492	136,298
SCOPE 3	315,338	311,843	314,220	300,975	293,485	272,555
TOTAL EMISSIONS	556,824	533,547	503,719	479,373	468,308	443,269

The table below shows like-for-like greenhouse gas emissions, covering 142 properties.

LIKE-FOR-LIKE GHG EMISSIONS BY TYPE (METRIC TONNES CO ² EQUIVALENT)						
	2014	2015	2016	2017	2018	2019
SCOPE 1	33,714	33,863	33,702	33,699	32,275	33,734
SCOPE 2	204,299	185,329	156,398	142,602	137,616	131,450
SCOPE 3	311,211	307,889	309,506	295,982	289,638	271,153
TOTAL EMISSIONS	549,225	527,081	499,606	472,284	459,530	436,337
TOTAL - LIKE-FOR-LIKE CHANGE, 2019 VS 2014 (%)						-20.6%

² Scope 1 emissions include all fuels burned on-site for energy use/transportation. Scope 2 emissions covers grid-purchased electricity use within our operational control. Scope 3 emissions include grid-purchased electricity outside of our operational control (tenant-purchased).

WATER CONSUMPTION

The table below shows the absolute and like-for-like water usage from 2014 to 2019. Like-for-like covers water consumption at 137 retail assets. Data does not capture any recycled water utilized at our assets.

	WATER CONSUMPTION (KGAL)					
	2014	2015	2016	2017	2018	2019
ABSOLUTE WATER USAGE	2,649,584	2,611,565	2,624,615	2,545,051	2,469,291	2,451,295
LIKE-FOR-LIKE USAGE	2,640,415	2,562,759	2,550,695	2,448,011	2,356,443	2,340,154
TOTAL - LIKE-FOR-LIKE CHANGE, 2019 VS 2014 (%)						-11.4%

WASTE

The table below shows the tonnage of waste generated by disposal type. Absolute waste tonnage covers all managed properties, where Brookfield Properties' U.S. retail portfolio has operational control for waste management.

	WASTE GENERATED (TONS)					
WASTE TYPES	2014	2015	2016	2017	2018	2019
LANDFILL	98,113	96,473	106,460	104,258	104,094	116,847
RECYCLING	33,697	35,558	38,594	38,662	39,391	50,835
CONVERTED TO ENERGY	12,780	16,460	17,180	16,302	18,588	21,403
COMPOSTING	1,974	2,123	2,306	2,838	2,993	3,012
TOTAL	146,564	150,614	164,540	162,060	165,065	192,097
DIVERSION FROM LANDFILL	33%	36%	35%	36%	37%	39%

GRI DISCLOSURE INDEX

This report is prepared using guidance from the 2016 Global Reporting Initiative (GRI) Standards core framework, incorporating data from the 2019 calendar year. All standards are selected based on their relevant materiality to Brookfield Properties' U.S. retail portfolio, alongside the discussion of their impacts and opportunities throughout this report.

GRI 102: GENERAL DISCLOSURES

DISCLOSURE	LOCATION
102-1 Name of the organization	Page 4
102-2 Activities, brands, products and/or services	Page 4
102-3 Location of headquarters	Page 35
102-4 Location of operations	Page 5
102-5 Ownership and legal form	Page 4
102-6 Markets served	Page 5
102-7 Scale of reporting organization	Brookfield Property REIT Inc 10-K: https://bpy.brookfield.com/~media/Files/B/Brookfield-BPY-IR-V2/Annual%20Reports/BPR-2019-Annual-Report.pdf
102-8 Information on employees and other workers	Page 23
102-9 Supply chain	Brookfield Properties has a large and diverse supply chain. This supply chain is present in the development, leasing, and asset management of our properties.
102-10 Significant changes to the organization and its supply chain	Page 4
102-11 Precautionary principle or approach	We do not specifically refer to the precautionary approach but apply these principles across all our policies and sustainability commitments.
102-12 External initiatives	Sustainability based initiatives include GRI, GRESB and NAREIT.
102-13 Membership of associations	We pay the cost for employees to pursue designations from the International Council of Shopping Centers, or ICSC (including the new Certified Retail Real Estate Professional credentialing program), and BOMI International. We also reimburse employees for the cost of maintaining professional registrations, certifications, or licenses.
102-14 Statement from senior decision maker	Page 3
102-16 Values, principles, standards, and norms of behavior	Page 23

GRI 102: GENERAL DISCLOSURES

DISCLOSURE	LOCATION
102-18 Governance structure	Page 4
102-40 List of stakeholder groups	Page 25
102-41 Collective bargaining agreements	1% of our total employees are covered by collective bargaining agreements.
102-42 Identifying and selecting stakeholders	Page 25
102-44 Key topics and concerns raised	Page 25
102-45 Entities included in the consolidated financial statements	Page 4
102-46 Defining report content and topic boundaries	Page 32
102-47 List of material topics	Page 25
102-48 Restatements of information	Since our last report there have been no restatements.
102-49 Changes in reporting	Page 25
102-50 Reporting period	Page 32
102-51 Date of most recent report	Page 1
102-52 Reporting cycle	Page 32
102-53 Contact point for questions regarding the report	Page 35
102-55 GRI content index	Page 32
102-56 External assurance	All data is externally checked by our software service provider, Measurabl.

GRI 302: ENERGY

DISCLOSURE	LOCATION
302-1 Energy consumption within the organization	Page 29
302-2 Energy consumption outside of the organization	Page 28
302-4 Reduction of energy consumption	Page 28

GRI 303: WATER AND EFFLUENTS

DISCLOSURE	LOCATION
303-5 Water consumption	Page 31

GRI 305: EMISSIONS

DISCLOSURE	LOCATION
305-1 Direct (Scope 1) GHG Emissions	Page 30
305-2 Energy indirect (Scope 2) GHG Emissions	Page 30
305-3 Other indirect (Scope 3) GHG Emissions	Page 30
305-5 Reduction GHG Emissions	Page 30

GRI 303: EFFLUENTS AND WASTE

DISCLOSURE	LOCATION
306-2 Waste by type and disposal method	Page 31

GRI 307: ENVIRONMENTAL COMPLIANCE

DISCLOSURE	LOCATION
307-1 Non-compliance with environmental laws and regulations	No significant fines or nonmonetary sanctions regarding environmental compliance in 2019.

GRI 404: TRAINING AND EDUCATION

DISCLOSURE	LOCATION
404-2 Programs for upgrading employee skills and transition assistance programs	Page 23
404-3 Percentage of employees receiving regular performance and career development reviews	Page 23

GRI 405: DIVERSITY AND EQUAL OPPORTUNITY

DISCLOSURE	LOCATION
405-1 Diversity of governance bodies and employees	Page 23

GRI 413: LOCAL COMMUNITIES

DISCLOSURE	LOCATION
413-1 Operations with local community engagement, impact assessments, and development programs	Page 19

This report contains information in summary form and is intended for general audiences only. It is not intended to be a substitute for detailed research or the exercise of professional judgment.

BROOKFIELD PROPERTIES

350 N. ORLEANS
SUITE 300
CHICAGO, IL 60654
312-960-5000

Learn more about Brookfield Properties' U.S. retail team's sustainability efforts at www.brookfieldpropertiesretail.com. We invite you to submit your comments and suggestions regarding this report. Please contact us at:

KEITH ANIOL

Vice President, Energy & Sustainability
keith.aniol@brookfieldpropertiesretail.com
312-960-5077

RHIANNE MENZIES

Manager, Sustainability
rhianne.menzies@brookfieldpropertiesretail.com
312-960-6325

Brookfield
Properties



Hawaii Credit Union League

Your Partner For Success

1654 South King Street
Honolulu, Hawaii 96826-2097
Telephone: (808) 941.0556
Fax: (808) 945.0019
Web site: www.hcul.org
Email: info@hcul.org



Testimony to the Senate Committee on Transportation
Tuesday, March 23, 2021, 2:00 pm
Hawaii State Capitol, Via Videoconference

Testimony in Opposition to HB 803. Relating to Electric Vehicles

To: The Honorable Chris Lee, Chair
The Honorable Lorraine Inouye, Vice-Chair
Members of the Committee

My name is Stefanie Sakamoto, and I am testifying on behalf of the Hawaii Credit Union League, the local trade association for 51 Hawaii credit unions, representing over 800,000 credit union members across the state.

We are in opposition to HB 803, Relating to Electric Vehicles. This bill would expand the State's existing electric vehicle charging requirements to require level 2 and internet-capable charging stations, and requires by 2025, that any parking facility with more than one hundred total public parking spaces shall be required to provide **five** electric vehicle supply devices for every one hundred public parking spaces.

Current law states that parking lot owners/operators must provide 1 electric vehicle charging device per 100 parking stalls. While we understand the desire to provide more charging stations and dedicated parking stalls for electric vehicles to promote "green" transportation, this cost is completely borne by the business owner. The cost of the device itself, along with painting and re-configuration of parking stalls, and the possible loss of parking stalls for employees, tenants, and customers is completely the responsibility of the owner, with no incentive; only penalty for non-compliance. This bill represents a further increase in the cost of doing business in Hawaii. Further, with the cost of living in Hawaii already being so high, most people cannot afford to switch to an electric vehicle to benefit from this proposed law.

This bill is even more concerning when considering the current economic situation that has been brought on by the Covid-19 pandemic.

Thank you for the opportunity to testify.

FAITH ACTION FOR COMMUNITY EQUITY
ENVIRONMENTAL JUSTICE TASK FORCE

Senate

Committee on Transportation

March 23, 2021 at 3:00 pm

Via Videoconference and Conference Room 224

SUPPORTING [HB 803](#), [HD1](#)

The Environmental Justice Task Force of Faith Action for Community Equity supports [HB 803](#), [HD1](#), which will help increase EV adoption by encouraging the development of a reliable charging network for EV drivers.

Personally, I have the experience of being forced to use only public charging stations for several months, and due to the current availability and maintenance level of charging stations, I don't currently recommend most people rely on the publicly available and working charges as their primary energy source for their EV.

It is also extremely hard to find rental property that has EV charging available.

These issues are slowing down the transition to a cleaner, more sustainable Hawaii. We need to do everything we can to do our part to address climate change. Thank you for your support of [HB 803](#), [HD1](#).



**TESTIMONY OF TINA YAMAKI, PRESIDENT
RETAIL MERCHANTS OF HAWAII
March 23, 2021**

Re: HB 803 HD1 Relating to Electric Vehicles

Good afternoon Chair Lee and members of the Senate Committee on Transportation. I am Tina Yamaki, President of the Retail Merchants of Hawaii and I appreciate this opportunity to testify.

The Retail Merchants of Hawaii was founded in 1901, RMH is a statewide, not for profit trade organization committed to the growth and development of the retail industry in Hawaii. Our membership includes small mom & pop stores, large box stores, resellers, luxury retail, department stores, shopping malls, local, national, and international retailers, chains, and everyone in between.

Retailers continue to be concerned about our aina and have supported many initiatives that preserve and protect our environment. However, we are **OPPOSED** to SB 756 SD2 HD1 Relating to Electric Vehicles. This measure authorizes each county to adopt ordinances to enforce section 291-71, HRS, including the establishment of penalties for failure to comply with its requirements or maintain electric vehicle charging stations in working order; clarifies that certain enforcement officers may enter private property to enforce electric vehicle parking space violations; requires new electric vehicle charging systems installed pursuant to the electric vehicle charging system requirement to be at least Level 2 and network-capable; increases the number of required parking spots for electric vehicles from one space to five spaces and effective 7/1/2050.

While we understand want to attract more people to purchase Electric Vehicles (EV), we must also look at the bigger picture to protect the consumer and the price of living in Hawaii.

EVs still makes up only 1% of the cars on Hawaii's roadways with our understanding that the majority of the EV ownership is in the urban areas. Automobile manufactures like Jaguar, Audi, BMW, and Mercedes Benz have joined Tesla in launching high profile electric cars as well. And most EV cars sold in Hawaii are Tesla - bar none. This bill would make 5% of the parking reserved for 1% of the EV driven.

This bill does not consider the ADA parking requirements needed for car and van accessibility. Businesses must also have reserved ADA parking. For 100 stalls we need to provide at least 4 ADA stalls and 1 van accessible ADA stall. We must also note that ADA van accessible stalls equate to TWO parking stalls. Often the number of parking stalls in a shopping center is limited based on the space. And the ADA stall(s) could not be included as an EV charger stalls as not all ADA vehicles are electric. By law only EV can park in EV designated charging stalls and only ADA permitted vehicles can park in ADA stalls.

Furthermore, **Shopping malls and retailers outside of the urban areas find that their EV charging stations are not being used very often.** We believe that the market and customers should continue be the influencers in business trends and operations and not government mandates. We would like to point out that many strip malls in our communities as well as attractions that are outside of the urban areas have parking that is 100 stalls or more. New technology is constantly being developed regarding the actual charging station. However, organizations such as the Society of Automotive Engineers (SEA) and companies such as Qualcomm have been helping develop new wireless charging standards which may become integrated into all future EVs. New battery technologies are being investigated by major players, promising greater densities and longer ranges. **We would also like to point out that with the advancement of technology, the newer model Electric Vehicles can travel further distances.**

Retailers and Shopping Centers are not in the business of refueling/recharging. Many of our members have found EV drivers in the surrounding neighborhood and condominiums especially in the urban areas come to plug into the retailers charging stations to avoid increasing their electric bill at home or because their complex does not have EV charging capabilities. The EV stalls come at a cost to businesses who must provide additional security, signage, towing and more when people try to charge their cars after the malls are closed. Furthermore, these residents leave their cars AND are NOT shopping in the stores while their batteries are being recharged during mall hours. Thus, these residents are taking away the EV stall from customers coming to shop and who may turn away if there is no EV parking.

In addition, many shopping centers and retailers who have parking lots with 100 parking stalls or more offers the EV charging for FREE because they use a 3rd party vendor who provides the EV charging station in exchange for advert the station. The higher the level the more expensive they are. When retailers and shopping centers must purchase these devises, the inclusive cost would be passed on to the tenants and the tenants pass it on to the customers. If retailers and shopping centers are able get the devises for free and well as the cost to install (pavement asphalt removal and replacement, licensed electricians, pulling electrical lines...) retailers do not have to increase the price of products and raising the price of living in Hawaii.

Charging stations for commercial use are not cheap and can cost anywhere from \$5,000 to \$50,000 PER charger – this does NOT include the cost to tear up and replacing the existing parking lot asphalt or concrete pavement or installing the electrical needed. Charging stations in preexisting business parking lots are also in prime locations as it is the most economical regarding accessing the electricity. It would be more viable if new construction that has not been built would be able to spread out and place chargers in various locations throughout the parking lot in their plans instead of burdening existing businesses with the high cost to implement. **Mandating the install of 5 EV chargers for every 100 parking stalls by 2025 could cost large shopping centers millions of dollars. For the locally family own shopping centers it would still be in the tens of thousands of dollars. Money that these businesses simply do not have. We have already seen [shopping centers on the mainland shutting down](#) completely or filing for bankruptcy. Hawaii is not immune as there are a few malls in our state that are in bankruptcy as well.**

Hawaii has not recovered economically from the pandemic. Many local businesses have used of their life and retirement savings, children’s college funds and have taken out loans in order to keep their doors open and keep their workers employed. While we are seeing the Covid-19 vaccines being distributed worldwide, the pandemic is not over. We still do not know if there will be another outbreak when other countries will lift the ban to travel to the US or the mandatory quarantine when they return home. Retailers like most business in Hawaii is dependent on tourism and there is not recovery date set. Conducted in December, the [3rd Commercial Rent Survey](#) taken by a total of 1,126 businesses statewide, representing more than 30,000 workers, revealed:

- One in 10 Hawaii businesses permanently closed over the course of the pandemic, and 67 percent were impacted significantly by government restrictions.
- From April through December 2020, 50 percent of businesses did not pay their rent in full.
- Three in 10 businesses expected to miss three full rent payments between October and December 2020, and more than half expected to miss at least one full rent payment between January and June 2021.
- **86 percent of businesses saw their annual revenue decrease in 2020, and 82 percent expect a decrease in 2021 as well.**

Shopping Centers and retailers often try to maintain the customers’ expectations and needs. While we understand the want for penalties for compliance and regarding maintaining EV chargers, we feel that this should be a state and not a county law. While retailer locations try to maintain the chargers, it becomes costly if they are constantly deliberately broken. We have also found that many of the EV chargers are deliberately broken and vandalized by those who are not able to charge their EV because the stall is in use by someone else. There is time when a technician from out of state needs to come in to fix the unit. Penalizing businesses is unfair. However, for some the constant repair of the vandalized and damaged EV chargers adds up into the tens of thousands of dollars. Some of the EV chargers are not owned by the retailer or shopping center but a third party who is responsible for the maintenance.

Mandating the installation of EV parking stalls will increase the overall cost of living in Hawaii even higher than it is now. Hawaii is already well known to have a high cost of living. PayScale states that in Hawaii the national average is 88% higher than the rest of the nation. Hawaii’s housing is 202% higher, utilities 89% higher and groceries 62% higher.

Who will ultimately pay for the EV charger infrastructure at retail locations and shopping malls? It will be everyone regardless of if they drive an EV or not as the cost will be passed on to **our kupuna, keiki, family friends and neighbors – the consumer - when they purchase food, clothing, school supplies, healthcare products, electronics and more. The cost to install the charging stations will not be absorbed by the business but passed on to the customers.**

Shopping habits have changed with people limiting their time to shop. We must also recognize that not all retailers are alike. For small standalone stores and convenience stores, customers are in and out in a few minutes. With limited parking you would not want someone parked in a stall for a few hours to charge their car. You would want a constant flow.

We are already seeing a mass exodus of our local residents moving to the mainland where it is cheaper to live.

We question if enforcement officers are really going to determine if parking lots are complying when the larger problem that is facing retailers and the community is theft, homelessness, and safety issues. Are they going to physically count all the stalls to determine if the lot is complying? Who is these volunteer enforcement officers and who is going to be liable for them in the private parking lots? Why are the enforcement officers not concentrating on catching those who are deliberately breaking the EV chargers or who are not customers of the center or who have overstayed in the stall? And who will be liable for the enforcement officers walking through the parking lots?

We are also unsure what is meant by "NETWORK CAPABLE"

We should be encouraging a new cottage industry to build quick charging standalone stations like that of a traditional gas station. We are already seeing and should be encouraging Hawaiian Electric Company to install more fast-charging stand-alone stations. As well as offering an incentive for others to follow. The burden and the absorbent cost of installing of EV charging stations in existing parking lots should not fall on businesses. This pandemic is not over, and it will take years for many businesses to recover. **Businesses are already closing their doors as they can no longer afford to keep them open due to the effects of the pandemic or customers stop coming because they can find the items cheaper online** Many of our retailers statewide are already operating on a thin margin, especially mom and pop stores who cannot afford to absorb the increase in their operational costs. Everyday we are seeing more and more long-time restaurants and stores businesses closing for good citing the decrease in sales, not being able to pay their rent and the increased cost of doing business in Hawaii. We have even seen where shopping centers are defaulting on their loans. Why are we placing more financial burden on businesses?

Government mandates like this does drive up the cost of doing business that in turn drives up the cost of living in Hawaii. **We urge you not to impose another government mandate on retailers that would drive up the cost of living in Hawaii and that many businesses cannot afford.**

Mahalo again for this opportunity to testify.



LATE

**SENATE COMMITTEE ON TRANSPORTATION
Hawaii State Capitol
415 South Beretania Street
Via Videoconference
3:00 PM**

March 23, 2021

RE: HB 803, RELATING TO ELECTRIC VEHICLES

Chair Lee, Vice Chair Inouye, and members of the committee:

My name is Beau Nobmann, 2021 President of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii.

BIA-Hawaii is in opposition to HB 803, Relating to Electric Vehicles. This bill would authorize each county to adopt ordinances to enforce section 291-71, Hawaii Revised Statutes, including the establishment of penalties for failure to comply with its requirements or make reasonable efforts to maintain electric vehicle charging stations in working order, requires new electric vehicle charging systems installed pursuant to the electric vehicle charging system requirement to be at least Level 2 and network capable, and adds electric vehicle charging equipped parking requirement of five stalls per one hundred stalls by 2025.

While we understand and appreciate the intent of this bill, BIA Hawaii has consistently opposed unfunded government mandates, such as what is being proposed in this bill. The proposed bill mandates that for parking lots with 100 stalls or more, the number of stalls required to accommodate electric vehicles will increase 500% by 2025. The cost to restripe and install the necessary equipment for charging electric vehicles is to be borne by the owner/operator of the parking lot. Further, because this bill would apply retroactively, any current parking lot would be included. The construction of this type of infrastructure would be extremely costly to property owners, businesses, and consumers.

The state of Hawaii is in a dire economic crisis which has been further exacerbated by the ongoing pandemic situation. The current Covid-19 pandemic only makes this issue even more concerning, as the financial consequences of this bill are largely unknown; even more so when facing the devastation of our economy. Adopting a bill with unnecessary mandates for all buildings in Hawaii should not be the priority at this critical, difficult time.

We appreciate the opportunity to provide our comments on this matter.

LATE



Environmental Caucus of The Democratic Party of Hawai'i

March 23, 2021

To: Senate Committee on Transportation
Senator Chris Lee, Chair
Senator Lorraine R. Inouye, Vice Chair, and
Members of the Committee on Transportation

Re: HB 803, HD1 RELATING TO ELECTRIC VEHICLES

Hearing: Tuesday, March 23, 2021, 3:00 p.m., Room 224 via videoconference

Position: **STRONG SUPPORT**

Aloha Chair Lee, Vice Chair Inouye, and Members of the Committee on Transportation:

The Environmental Caucus of the Democratic Party of Hawai'i and its Natural Resources Committee and Human Environmental Impacts Committee are in strong support of HB 803, HD1 as it authorizes each county to adopt ordinances to enforce section 291-71, HRS, including the establishment of penalties for failure to comply with its requirements or maintain electric vehicle charging stations in working order. It further clarifies certain enforcement officers may enter private property to enforce electric vehicle parking space violations. It requires new electric vehicle charging systems installed pursuant to the electric vehicle charging system requirement to have at least Level 2 and network-capable. It also increases the number of required parking spots for electric vehicles from one space to five spaces.

The Democratic Party of Hawai'i (Party) has adopted at its 2018 State Convention, clear safeguards to protect the *'āina* through combating climate change by eliminating fossil fuels through electrification. At page 18 of the Party Platform, it specifically provides:

“We are committed to getting 100 percent of our electricity from clean energy sources within a decade. . . . We will transform Hawai'i's transportation by reducing fossil fuel consumption through cleaner fuels, vehicle electrification, and increasing the fuel efficiency of cars, boilers, ships, and trucks. We will make new investments in public transportation and build bicycle and pedestrian infrastructure across our urban and suburban areas. . . .



March 23, 2021

Page 2

Democrats are committed to defending, implementing and extending smart pollution and efficiency standards and fuel economy standards for automobiles and heavy-duty vehicles, building codes and appliance standards. We are also committed to expanding clean energy research and development.

We will work to expand access to cost-saving renewable energy by low-income households, create good-paying jobs in communities that struggled with energy poverty, and oppose efforts by utilities to limit consumer choice or slow clean energy deployment. We will streamline State permitting to accelerate the construction of new transmission lines to get low-cost renewable energy to market, and incentivize wind, solar, and other renewable energy.

As this bill is supported by the 2018 Democratic Party of Hawai'i Platform, we urge this Committee to pass HB 803, HD1. It is necessary as it authorizes each county to adopt ordinances to enforce section 291-71, HRS, including the establishment of penalties for failure to comply with its requirements or maintain electric vehicle charging stations in working order. This bill clarifies certain enforcement officers may enter private property to enforce electric vehicle parking space violations. It requires new electric vehicle charging systems installed pursuant to the electric vehicle charging system requirement to have at least Level 2 and network-capable. Most importantly, it increases the requirement of the number of parking spots for electric vehicles from one space to five spaces all of which is necessary as the state transitions to 100% renewable energy by 2045.

Please pass this important and overdue legislation.

Mahalo nui loa for the opportunity to testify on this important measure.

Respectfully yours,

Alan B. Burdick
Co-Chair, Environmental Caucus
Co-Chair, Natural Resources Committee
Democratic Party of Hawai'i
Email: burdick808@gmail.com

Melodie R. Aduja
Co-Chair, Environmental Caucus
Co-Chair, Human Environmental Impacts Committee
Democratic Party of Hawai'i
Email: legislativepriorities@gmail.com

HB-803-HD-1

Submitted on: 3/20/2021 8:17:20 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nanea Lo	Individual	Support	No

Comments:

Hello,

My name is Nanea Lo. I'm from Papakāleia, O'ahu currently living in Māhala in my ancestral homelands. I support HB803. Hawaii's lack of working chargers is a real obstacle to EV adoption. Charge anxiety is a big a problem for potential EV buyers, EV-driving renters and condo-dwellers. To achieve Hawaii's sustainable transportation and climate goals, we must support efforts that help decarbonize ground transportation as soon as possible.

Support HB803.

me ke aloha 'Āina,

Nanea Lo

HB-803-HD-1

Submitted on: 3/20/2021 10:38:43 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Laura Ramirez	Individual	Support	No

Comments:

Aloha,

Please support this bill so that we can move our islands towards more clean energy use and less pollution.

Hawaii's lack of working chargers is a real obstacle to EV adoption. Charge anxiety is a big a problem for potential EV buyers, EV-driving renters and condo-dwellers. To achieve Hawaii's sustainable transportation and climate goals, we must support efforts that help decarbonize ground transportation as soon as possible.

Mahalo!

HB-803-HD-1

Submitted on: 3/21/2021 6:50:20 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joan Gannon	Individual	Support	No

Comments:

Aloha Joan here from South Kona asking you again to pass HB803. This will help us in our efforts to mitigate the climate crisis. Have the state agencies use electric vehicles.

thank you and good luck in dealing with our most pressing problem, climate crisis.

Joan Gannon

HB-803-HD-1

Submitted on: 3/21/2021 7:18:02 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Bernice Strand	Individual	Support	No

Comments:

I urge all to support HB803. EV are a key part of moving toward clean energy goals for Hawaii. I am looking to purchase an EV as my next vehicle, but charging stations that are sufficient and in good working order are the infrastructure needed for the vision of a clean, sustainable Hawaii to move forward. Please support HB 803. Mahalo.

HB-803-HD-1

Submitted on: 3/21/2021 9:49:32 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Scott Kidd	Individual	Support	No

Comments:

I support this bill

HB-803-HD-1

Submitted on: 3/21/2021 10:45:18 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Emily Thomas	Individual	Support	No

Comments:

I am writing in support of HB803. I am an electric vehicle owner on Kauai and find it extremely challenging to move about the island confidently knowing I will be able to charge my car. I often have to borrow my daughters gas guzzler because of the lack of charging infrastructure. Many of my friends would like to purchase EV's but are hesitant only because there is a poor charging infrastructure. Even with this poor charging infrastructure I have been able to save upwards of \$1000 the past year in gas costs. I encourage you to commit to improving the EV charging infrastructure so that other families in Hawaii can save thousands of dollars on gas costs as well as do their part to mitigate the climate crisis.

HB-803-HD-1

Submitted on: 3/21/2021 11:07:18 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Janet H. Boyd	Individual	Support	No

Comments:

Please support ongoing maintenance and increased access to EV charging stations.

Thank you

Janet Boyd

HB-803-HD-1

Submitted on: 3/21/2021 11:45:46 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jacob Head	Individual	Support	No

Comments:

Hawaii State Legislature,

Please strongly consider this bill as it will help to promote, and increase adoption of cleaner transportation options for our state.

Jacob Head

HB-803-HD-1

Submitted on: 3/21/2021 12:38:37 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Caroline Kunitake	Individual	Support	No

Comments:

Dear Chair Lee, Vice Chair Inouye and Committee on Transportation,

I am writing in support of HB803 HD1.

Hawaii's lack of working chargers is a real obstacle to EV adoption. Charge anxiety is a big a problem for potential EV buyers, EV-driving renters and condo-dwellers. To achieve Hawaii's sustainable transportation and climate goals, we must support efforts that help decarbonize ground transportation as soon as possible.

Thank you for taking the time to review this issue. I appreciate the opportunity to support this bill.

Mahalo,

Caroline Kunitake

HB-803-HD-1

Submitted on: 3/21/2021 12:39:35 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
P Noel Bobilin	Individual	Support	No

Comments:

I strongly support HB803 HD1 Hawaii's lack of working chargers is a real obstacle to EV adoption. Charge anxiety is a big a problem for potential EV buyers, EV-driving renters and condo-dwellers. To achieve Hawaii's sustainable transportation and climate goals, we must support efforts that help decarbonize ground transportation as soon as possible. I want my next car to be an EV and this will help me make the change, Mahalo.

HB-803-HD-1

Submitted on: 3/21/2021 5:34:54 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Keith Neal	Individual	Support	No

Comments:

Strong support must include:

- expand the requirement for the number of stations per 100 spaces,
- set the standards for the stations,
- ensure that the stations are maintained, and
- allow for enforcement of EV parking violations.

HB-803-HD-1

Submitted on: 3/21/2021 5:37:31 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Matson	Individual	Support	No

Comments:

As an EV owner since 2014, I fully support HB 803, HD1.

Mahalo for passing this measure!

HB-803-HD-1

Submitted on: 3/21/2021 6:51:36 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Roseann Michaud	Individual	Support	No

Comments:

I strongly support HB803. If we are serious about transitioning to sustainable transportation than we must provide the needed infrastructure. EV charging stations must be maintained to support efforts to decarbonize ground transportation.

HB-803-HD-1

Submitted on: 3/21/2021 8:51:43 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Daniela Escontrela	Individual	Support	No

Comments:

Hawaii's lack of working chargers is a real obstacle to EV adoption. Charge anxiety is a big a problem for potential EV buyers, EV-driving renters and condo-dwellers. To achieve Hawaii's sustainable transportation and climate goals, we must support efforts that help decarbonize ground transportation as soon as possible.

HB-803-HD-1

Submitted on: 3/21/2021 9:05:08 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Elizabeth Hansen	Individual	Support	No

Comments:

Please support this bill.

Hawaii's lack of working chargers is a real obstacle to EV adoption. Charge anxiety is a big a problem for potential EV buyers, EV-driving renters and condo-dwellers. To achieve Hawaii's sustainable transportation and climate goals, we must support efforts that help decarbonize ground transportation as soon as possible.

Mahalo.

HB-803-HD-1

Submitted on: 3/21/2021 9:14:43 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Rodger Hansen	Individual	Support	No

Comments:

Please support this bill.

EVs play a key role in our transition to 100% clean energy. This bill establishes a priority for electric and hybrid vehicles for government vehicle rentals. This will not only reduce Hawaii's use of gasoline and internal combustion engines, but help show the way to a cleaner vehicle future that will help mitigate the climate crisis.

Mahalo

HB-803-HD-1

Submitted on: 3/21/2021 10:21:10 PM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Hilary Smith	Individual	Support	No

Comments:

The state of EV charging on Hawaii Island is deplorable. Although County buildings are required to have EV chargers, only ONE of the chargers at the Hilo Aupuni center actually works--the rest have been out of order for over a year. The chargers near the Drivers Registration office have also been out of order for over a year. The HECO fast charger in Hilo is out of service so often, and for such long stretches of time, that it is impossible to rely on.

Like many Hawaii residents, I live in a condo/apartment building where I do not have my own charger. I rely on public charge stations to power my car, but am in a constant state of stress trying to find a working charger. Hawaii must enforce its own laws and not only install, but maintain chargers in working condition.

HB-803-HD-1

Submitted on: 3/22/2021 1:29:38 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Janet Pappas	Individual	Support	No

Comments:

Dear Transportation Chair Lee, Vice Chair Inouye and Committee members,

We strongly support HB 803 HD1.

Several bills this session have set a goal of 100% renewable energy for Hawaii's ground transportation fleets. A majority of car manufacturers across the U.S. are building at least one model of electric vehicle, while other carmakers are planning all-electric fleets. In other words, Hawaii must prepare for the EVs that will begin to flood the market--and our roadways--within the next five years (Hawaii currently stands at 1% EV adoption).

If Hawaii's renewable energy goals are to be attained, the infrastructure for EV chargers must be installed everywhere, on every island. Without such a build-out, Hawaii will be slowing down the transition to renewable energy as well as the transition to cheaper, more reliable vehicles that do not pollute our atmosphere. (Our family has enjoyed the following benefits from our 2011 Nissan Leaf going on ten years now: no gas, no oil, no transmission fluid, no water, fewer car repair bills.) And if we all get EVs: zero greenhouse gas emissions from ground transportation, quieter roadways and we all save money.

We need to start today planning and building EV charging stations if we are to get ahead of the EV car market and achieve our energy, transportation and climate goals.

Please pass HB803 HD1, including Level 2 charging capability.

Thank you for listening and for this opportunity to testify.

Sincerely,

Jan Pappas, Ronald Yasuda - Aiea, Hawaii

HB-803-HD-1

Submitted on: 3/22/2021 8:44:44 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Nandoskar	Individual	Support	No

Comments:

Strong support.

HB-803-HD-1

Submitted on: 3/22/2021 8:49:21 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Emily Ebert	Individual	Support	No

Comments:

I support this bill.

Emily Ebert

HB-803-HD-1

Submitted on: 3/22/2021 9:03:39 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ronald Reilly	Individual	Support	No

Comments:

Dear Chair Lee, Vice Chair Inouye and Members of the Transportation Committee,

I strongly support of HB 803 HD1.

This bill will give the needed enforcement authority to improve the number of publicly available and well maintained EV charging stalls,

In Hilo we have a great example of good compliance at the Target Store with several EV stalls all with operating Level 2 charging plugs. These are free for the first 2 hours of use - thank you Target!

Unfortunately Hilo also has several examples of lack of compliance. Several large retail stores and shopping centers have NO (or inoperative) EV charging plugs as required by HRS 291-71 and/or they charge exorbitant charging rates that discourage use.

It is clear that uniform enforcement of the existing regulations is needed.

I urge your unanimous support of HB 803 HD1.

Thank you, Ron Reilly Volcano Village

HB-803-HD-1

Submitted on: 3/22/2021 9:19:49 AM

Testimony for TRS on 3/23/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Stephanie Hall Morin	Individual	Support	No

Comments:

Reliable charging infrastructure is the primary factor in moving the community to clean transportation. Mahalo for your consideration.