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Our Climate Change Action Plan

Climate Change Action Plan = Mitigation and Adaptation actions

Mitigation or

“reducing our contribution”

- Renewable energy
- Efficiency in system
- Decarbonization

Adaptation or

“adapting to”

- Resilience
- Managed retreat

- **What** is decarbonization?
- **Why** make a decarbonization commitment?
- **What** is the commitment?

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What is “decarbonization”?

Decarbonization ≠ Renewable Portfolio Standards

Decarbonization Defined:

- Decarbonization refers to the process of reducing carbon dioxide (CO2) and other greenhouse gas emissions resulting from human activity in the atmosphere. The current (and optimistic) objective of decarbonization is to, eventually, eliminate our carbon dioxide emissions.

- To achieve deep decarbonization, we need to rethink our economy and quickly shift to lower or zero carbon options.

Hawaii's Decarbonization Law (Applies to the Entire State Economy)

- §225P-B Zero emissions clean economy target.
  - (a) Considering both atmospheric carbon and greenhouse gas emissions as well as offsets from the local sequestration of atmospheric carbon and greenhouse gases through long-term sinks and reservoirs, a statewide target is hereby established to sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045.
  - (b) The Hawaii climate change mitigation and adaptation commission shall endeavor to achieve the goals of this section. After January 1, 2020, agency plans, decisions, and strategies shall give consideration to the impact of those plans, decisions, and strategies on the State's ability to achieve the goals in this section, weighed appropriately against their primary purpose.

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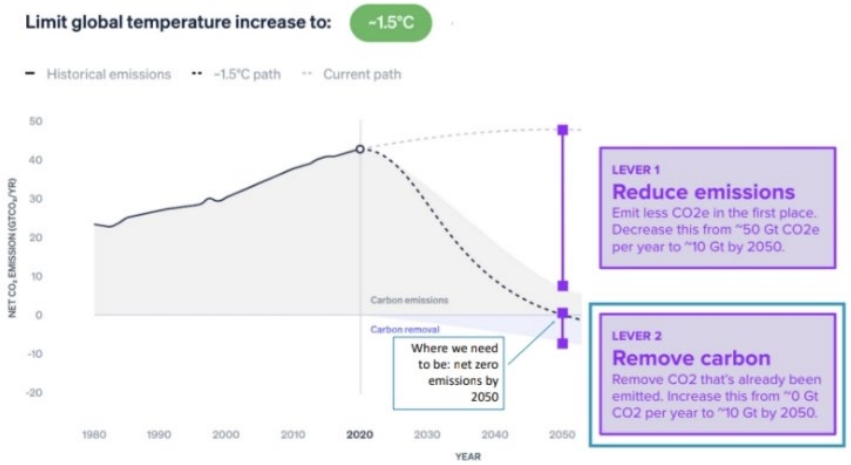
Why make a decarbonization commitment?

Setting a decarbonization goal is the right thing to do

- It is consistent with trends in the utility sector
- It has become the yardstick by which companies' sustainability performance is measured
- Consistent with HRS Section 225P (zero emissions clean economy target by 2045); Local stakeholder support
- Aligns electrification of transportation and other sectors with climate goals

Doing our part to meet science-based recommendations on climate change mitigation

Scientific consensus concludes that global temperature increases must be limited to 1.5°C by the end of the century to avoid the worst impacts of climate change

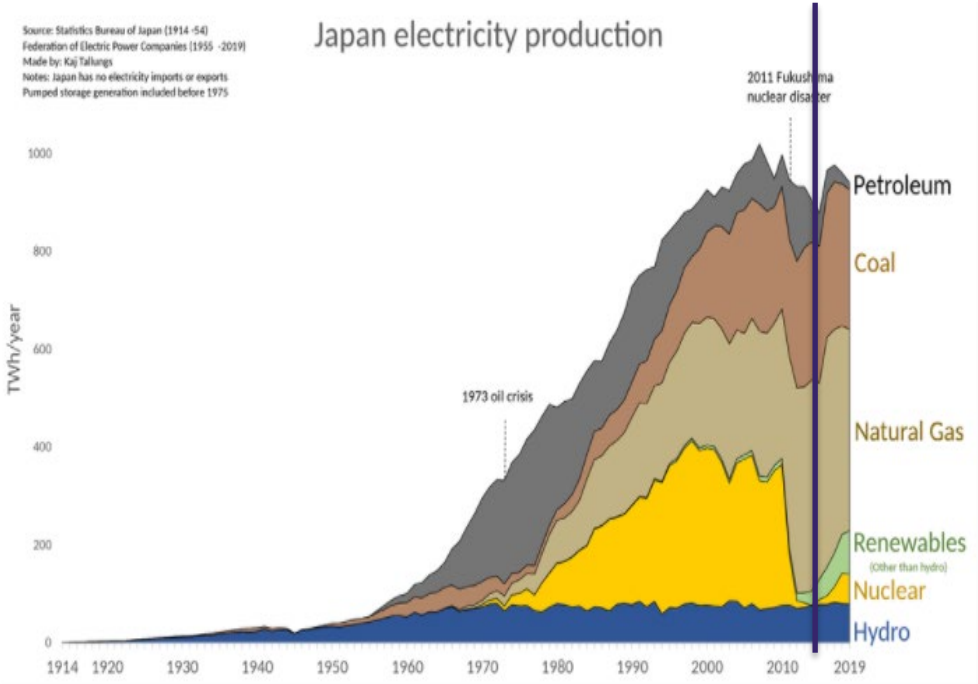


Limiting global warming to 1.5°C requires:

Global net zero target	Reaching net-zero CO_2 emissions no later than 2050
US 2030 target (Nationally Determined Contribution)	Reducing economywide CO_2 emissions by 50-52% by 2030 (vs. 2005 baseline)

Sources: UN IPCC, White House

How’s Japan’s target?



Limiting global warming to 1.5°C requires:

Japan 2030 target	Reducing economywide CO_2 emissions by 26% by 2030 (vs. 2013 baseline)
New Japan 2030 target (April 22, 2021)	Reducing economywide CO_2 emissions by 46% by 2030 (vs. 2013 baseline)

Sources: UN IPCC, White House

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What is Hawaiian Electric's commitment?

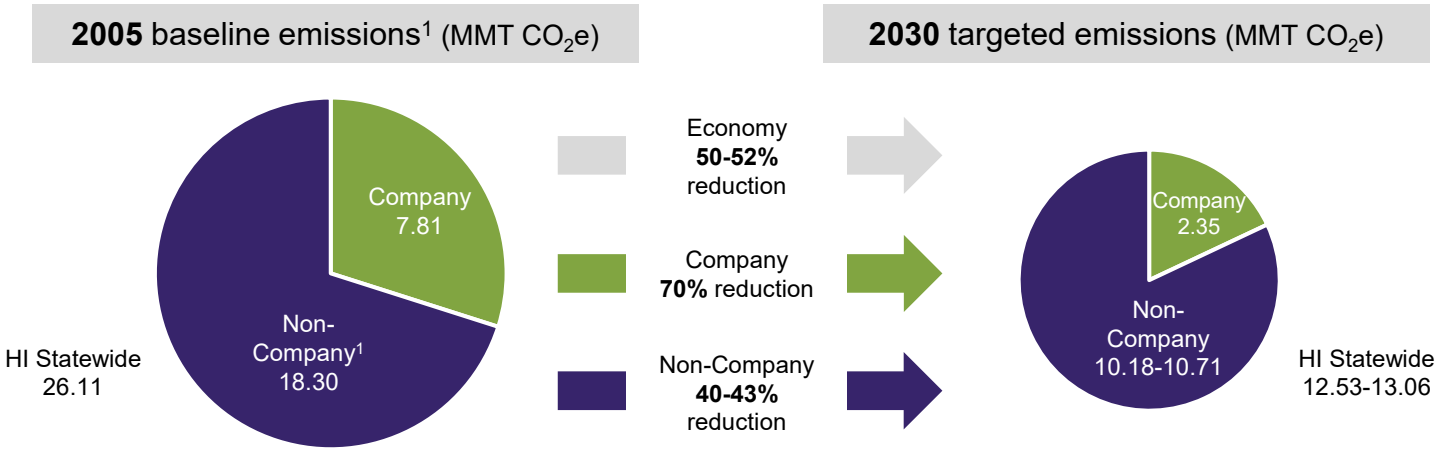
Hawaiian Electric's decarbonization commitment

- By 2030, reduce GHG emissions from generation by 70% from 2005 levels

- Achieve net-zero GHG emissions by 2045

2030 company commitment enables statewide 1.5°C ambition

Company reducing emissions by 70% by 2030 (vs. 2005)
is a key driver of reducing economywide emissions by 50-52%



1. Hawaii State baseline data is for 2007, based on limited data availability; Statewide emissions exclude sinks and include aviation
Sources: Hawaii Department of Health GHG Emissions Report (April 2021), Company data

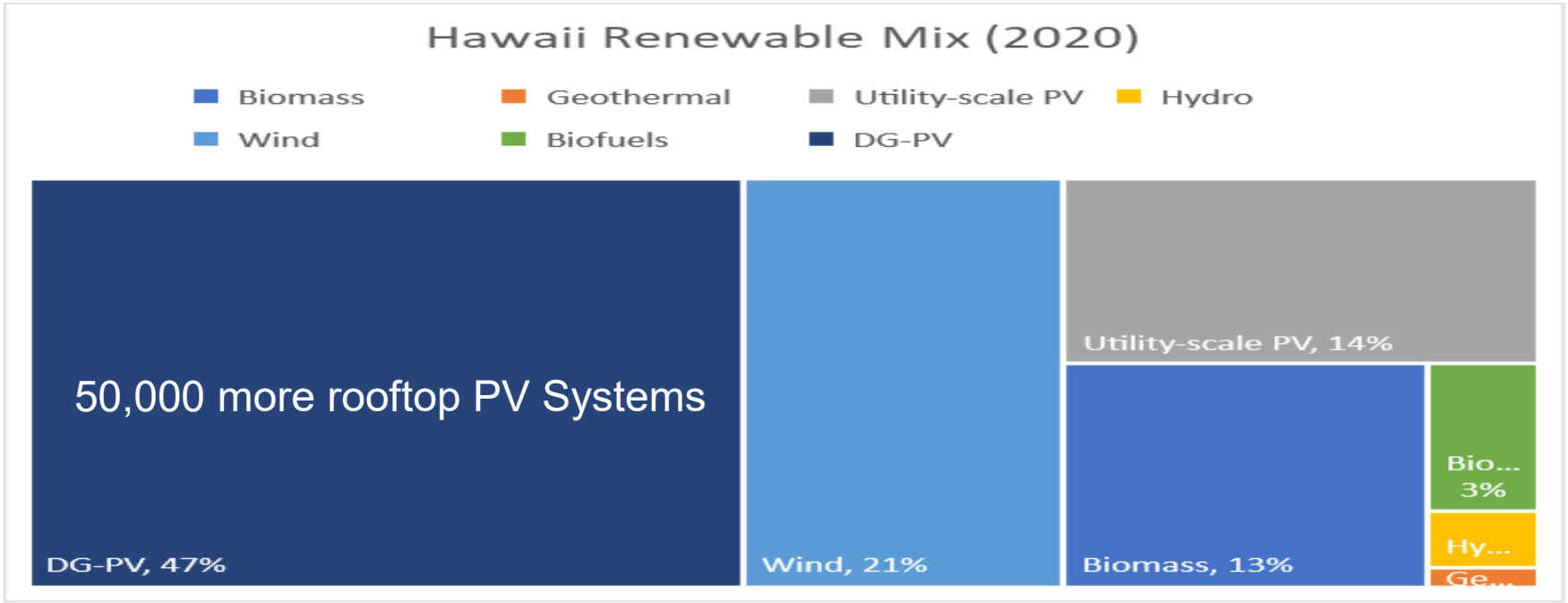
CO_2 Emission Factor (kg-CO_2/kWh) in Japan

	2016	2017	2018	2019	2020
Hokkaido	0.640	0.678	0.656	0.601	0.549
Tohoku	0.548	0.523	0.528	0.521	0.476
Hokuriku	0.640	0.593	0.542	0.510	0.469
Chubu	0.485	0.476	0.457	0.431	0.406
Tokyo	0.486	0.475	0.468	0.457	0.441
Kansai	0.509	0.435	0.352	0.340	0.362
Shikoku	0.529	0.535	0.528	0.408	0.550
Chugoku	0.691	0.669	0.618	0.561	0.521
Kyushu	0.483	0.463	0.347	0.370	0.479
Okinawa	0.799	0.786	0.786	0.810	0.705

Japan's
2030 Goal – 26%
0.37 kg-CO_2/kWh

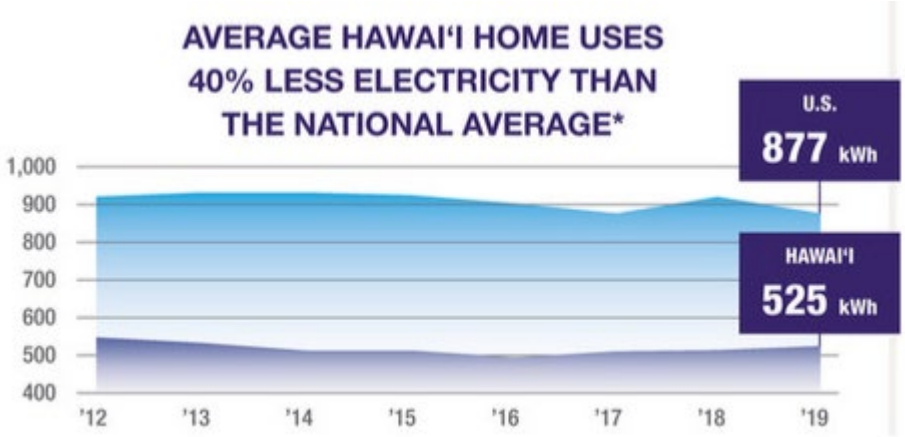
Hawaii (2020)
0.62 kg-CO_2/kWh

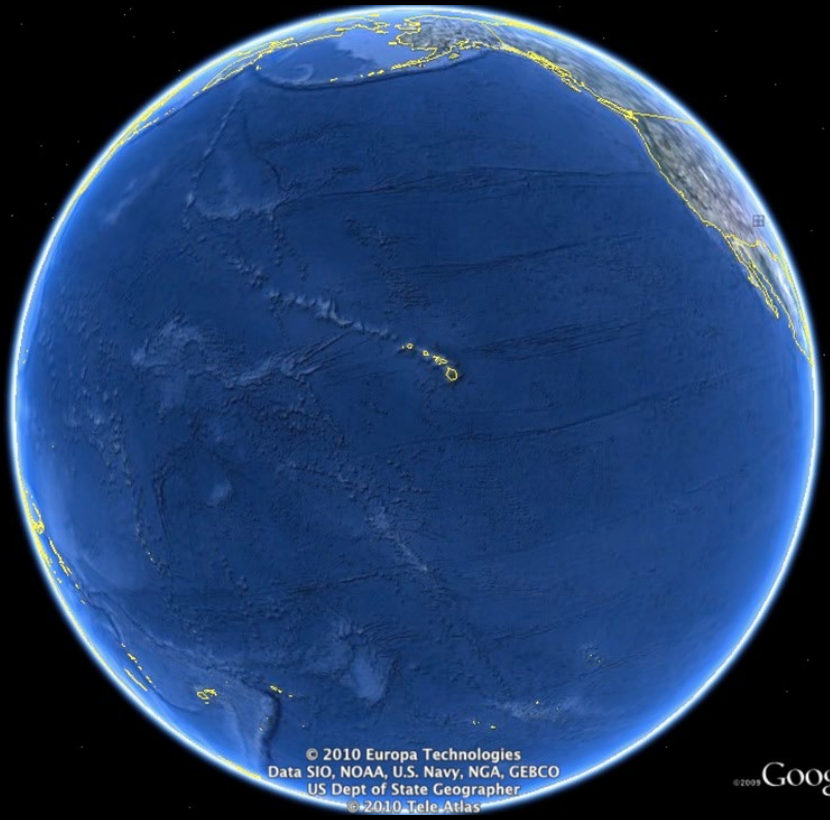
Hawaiian Electric hits 34.5% renewable energy



For discussion: What can YOU do?

- Spread the word
- Renewable Energy
- Energy Efficiency
- Electrification of Transportation
- Plastic Use

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Mahalo