State of Hawaii
Strategic Energy Plan

HAWAII STATE
Energy Office




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STATE OF HAWAII

Hawaii's Clean Energy Goals

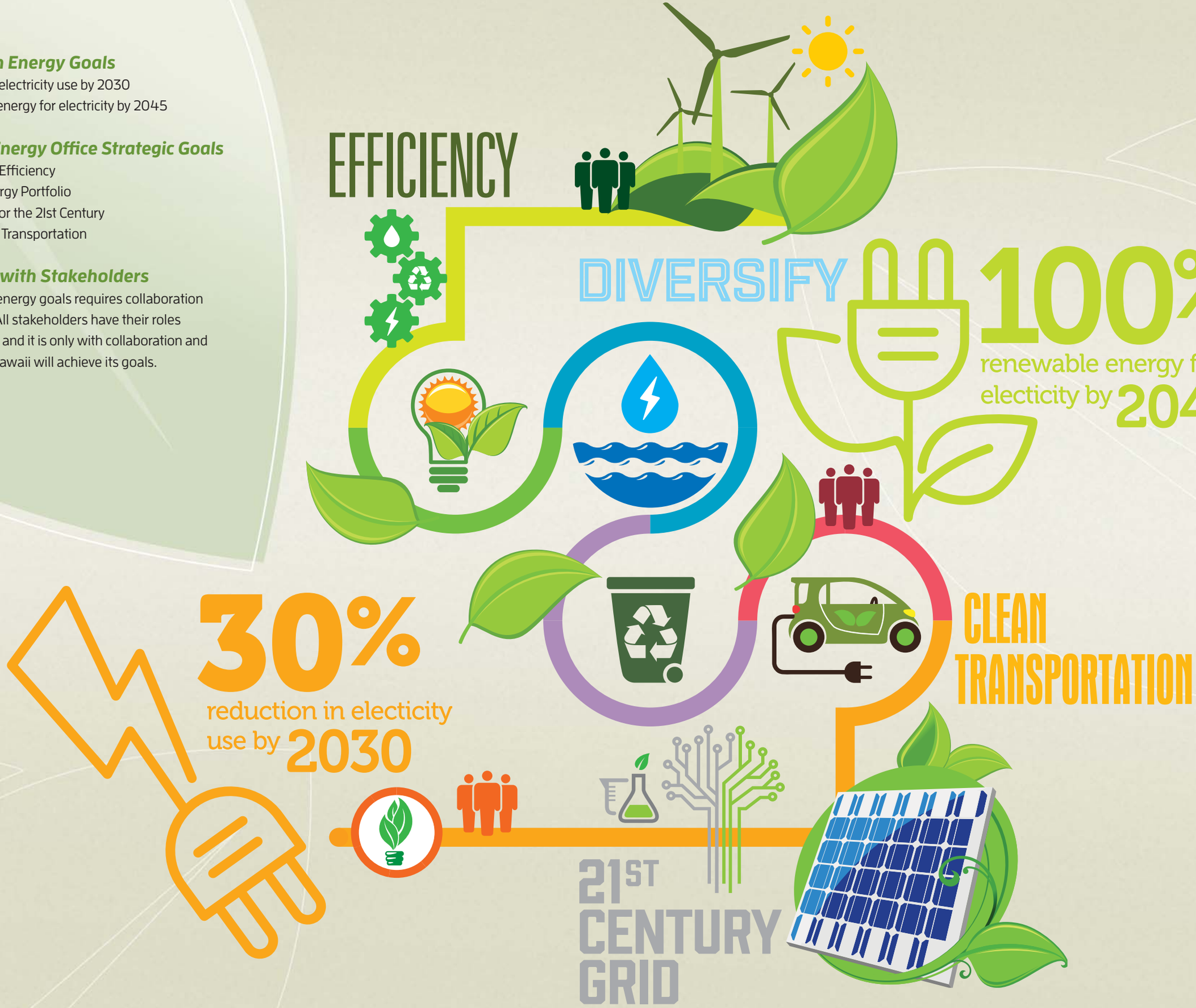
- 30% reduction in electricity use by 2030
- 100% renewable energy for electricity by 2045

Hawaii State Energy Office Strategic Goals

1. Promote Energy Efficiency
2. Diversify our Energy Portfolio
3. Establish a Grid for the 21st Century
4. Accelerate Clean Transportation

Collaboration with Stakeholders

Achieving Hawaii's energy goals requires collaboration with stakeholders. All stakeholders have their roles and responsibilities, and it is only with collaboration and commitment that Hawaii will achieve its goals.



Achieving Efficiency: Energy Efficiency Projects

Energy Performance Contracting: The $507.1 million of energy performance contracts put in place since 1996 will save the state an estimated $1.2 billion in electricity costs over the life of the contracts. For six consecutive years Hawaii has received national recognition from the Energy Services Coalition's *Race to the Top* award as the leader in per capita investment achieved in performance contracting.

Energy Performance Contracting: The State Department of Transportation, Airports Division, is recognized for awarding the single largest state contract in the nation for performance contracting of over $215 million. The initial contract was signed in 2013.

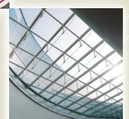
ENERGY STAR®: In two years Hawaii benchmarked 416 state facilities, completed certification of 83 schools, and conducted 26 training sessions for 332 public and private sector employees.

Securing our Renewable Future: Renewable Energy Projects

Renewable Energy Online Assistance: Hawaii State Energy Office's interactive Developer & Investor Center and Self-Help Suite provide comprehensive information on the siting, permitting, and development of renewable energy facilities in Hawaii. Since their launch in 2012 the web apps have received over 145,000 pageviews.

Renewable Energy Projects: Hawaii has over 70 utility-scale renewable energy projects and over 30 proposed renewable energy projects statewide.

West Loch 20-Megawatt Solar Project: The State of Hawaii, Hawaiian Electric Company, and the U.S. Navy are partnering to develop a 20-megawatt solar project.



GOAL 1:

Promote Energy Efficiency

Reduce waste, reduce pollution, save money.

WHAT DO WE WANT TO ACHIEVE?

- Education for consumers.
- Updated energy building codes.
- Energy efficient state agencies.
- More information and data.
- Efficient utility generation, transmission, and distribution.

WHAT ACTIONS WILL WE TAKE?

- Conduct data collection.
- Provide training for design professionals on the energy building code.
- Promote sustainable design in buildings.
- Promote utility generation, transmission, and distribution efficiency.

HOW WILL WE MEASURE OUR SUCCESS?

- Energy savings.
- Energy code adoption.
- Increased efficient buildings.

GOAL 2:

Diversify our Energy Portfolio

Hawaii is blessed with abundant renewable energy resources that can power our electricity and our economy.

WHAT DO WE WANT TO ACHIEVE?

- Identify our full renewable energy potential.
- Determine the impacts of electric vehicles on the utility grid.
- Provide renewable energy options for all customers.

WHAT ACTIONS WILL WE TAKE?

- Assess renewable energy potentials and impacts.
- Explore the interdependence of energy and water.

HOW WILL WE MEASURE OUR SUCCESS?

- Renewable energy sources used.
- Identified renewable resource sites.

GOAL 3:

Establish a Grid for the 21st Century

Hawaii's grid for the 21st century must provide opportunities for customers as well as utilities to efficiently meet energy needs and to maximize the benefits of renewable energy resources.

WHAT DO WE WANT TO ACHIEVE?

- Fair utility rates to improve customer service.
- Efficient utility operations and cost-effective generation, transmission, and distribution.

WHAT ACTIONS WILL WE TAKE?

- Support performance-based ratemaking.
- Identify transformative technologies for the electric grid.
- Inventory infrastructure for risk and vulnerability assessment.

HOW WILL WE MEASURE OUR SUCCESS?

- Lowered fossil fuel consumption.
- Reduced fuel imports.
- Avoided greenhouse gas emissions.

GOAL 4:

Accelerate Clean Transportation

Hawaii's transportation transformation involves near-term focus on ground transportation and a long-term perspective on diversifying fuels in aviation and marine transportation.

WHAT DO WE WANT TO ACHIEVE?

- Reduce or eliminate fossil fuel for ground transportation.
- Use electrification or renewable alternative fuels for ground transportation.

WHAT ACTIONS WILL WE TAKE?

- Develop a plan for state fleet electrification.
- Analyze the impact of the electrification of transportation.
- Increase electric vehicle charging options.

HOW WILL WE MEASURE OUR SUCCESS?

- Lowered fossil fuel consumption.
- Reduced fuel imports.
- Avoided greenhouse gas emissions.
- Reduced vehicle miles traveled.
- Increased electric vehicles and charging stations.

Accomplishments and Activities

Powering the Economy through Clean Energy Jobs

15,000 in 2016

Hawaii's clean energy industry sector continues to grow, leading to more jobs and increased economic development.

Source: U.S. Department of Energy's 2017 U.S. Energy and Employment Report

Hawaii's National Ranking

- Hawaii #1 – Residential solar power per household

  Clean Energy Momentum - Ranking State Progress 2017, Union of Concerned Scientists

- Honolulu #1 – Solar PV capacity installed per capita
- Honolulu #3 – Total solar PV capacity installed

  Shining Cities 2018, Environment America Research & Policy Center

FEDERAL SUPPORT: U.S. Department of Energy Grants

$1,422,559

2018 Carbon Neutral Policy

- Statewide carbon neutrality by 2045.
- Statewide carbon offset program.
- Greenhouse Gas Sequestration Task Force to identify policies and practices that increase sequestration and promote healthy working lands.

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For more information, visit energy.hawaii.gov