City of Malibu

Energy Action Plan

TABLE OF CONTENTS

EXECUTIVE SUMMARY 2

SECTION 1: INTRODUCTION 2

1.1 History of Energy Planning in the City of Malibu 2

1.2 Other Agency Goals 3

SECTION 2: CITY OF MALIBU ENERGY USE 3

2.1 City of Malibu Baseline Municipal Energy Use 3

2.2 Highest Users 4

2.3 Current Energy Programs 4

SECTION 3: CITY OF MALIBU TARGET REDUCTION GOALS 5

SECTION 4: CITY OF MALIBU ACTION STEPS 6

4.1 Municipal Facility Energy Efficiency Projects 6

4.2 Funding of Projects 7

4.3 Policies & Programs 7

4.4 Tracking 8

4.5 Implementation for SCE's Energy Leader Model 8

SECTION 5: CONCLUSION 9

EXECUTIVE SUMMARY

In recognition of the importance of implementing energy efficiency projects, the City of Malibu has completed this Energy Action Plan (EAP) as a step towards sustainability and meeting greenhouse gas reduction goals. The City continues to initiate municipal energy reductions and promote fiscal responsibility, activities that will be outlined in this EAP. Since the City of Malibu is a model for the population at large, these actions will have a positive impact on the wider community.

SECTION 1: INTRODUCTION

The purpose of this plan is to articulate energy savings goals for the City's municipal operations as well as the steps to accomplish them. Reaching these goals will allow the City to reduce the fiscal and environmental impacts associated with its energy use, meet its greenhouse gas reduction goals, and serve as a model for the region.

1.1 History of Energy Planning in the City of Malibu

The City of Malibu's Energy Action Plan represents an additional effort the City is taking towards environmental sustainability. The City's overall goal is to create a pathway to energy use reductions and create energy efficiency policy for future city projects and ordinances. With a focus on the community, the City of Malibu places high importance on supporting residents and local businesses in their efforts to do the same. Increasing energy efficiency in existing buildings, enhancing energy performance for new construction, and increasing use of renewable energy are key strategies and City goals.

While this document represents the City's first official Energy Action Plan, the City has been committed to energy efficiency for a number of years. In 2015, the City took advantage of the Southern California Edison Savings By Design program that resulted in energy savings and incentives. The project helped the Malibu City Hall surpass Title 24 code by over 10%, while allowing the design team to take advantage of financial incentives for extra efforts of integrating energy efficiency into the project design.

Malibu has pursued participation in the following rate-payer funded program which emphasize improving energy efficiency at a citywide level: the West Side Partnership. Southern California Edison's (SCE) Energy Leader Partnership (ELP) Program, and the Southern California Regional Energy Network (SoCalREN) Public Agency Program.

The City has not only made commitments to increasing energy efficiency and reducing greenhouse gas emissions, but it has also taken concrete steps to achieve these goals.

1.2 Other Agency Goals

In 2006, the California State Legislature adopted AB 32 (the California Global Warming Solutions Act of 2006), which charged the California Air Resources Board with developing regulations aimed to reduce the state's greenhouse gas levels to 1990 levels by the year 2020. Since then, planning has been underway to support the state in meeting these goals. The energy efficiency projects and goals outlined in this Energy Action Plan will help the City contribute to this effort.

In addition to AB 32, the City continues to support SB 350 in an effort to double statewide energy efficiency by 2030 and increase renewable procurement by 50% by 2030.

SECTION 2: CITY OF MALIBU ENERGY USE

2.1 City of Malibu Baseline Municipal Energy Use

The City of Malibu has a baseline municipal electricity use of 200,197 kWh (per SCE's ELP 2006 baseline kWh consumption).

2.2 Highest Users

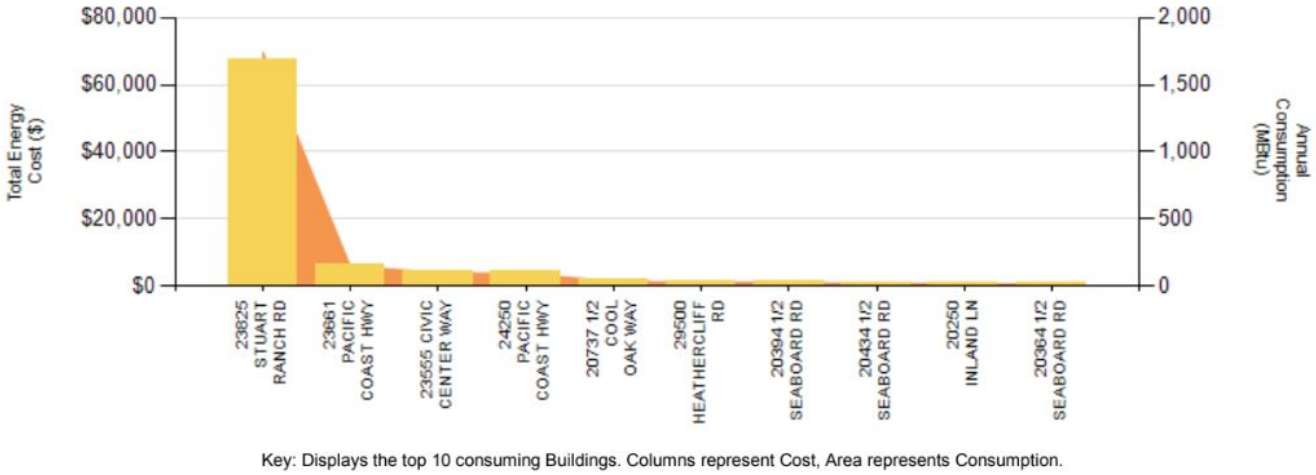
The following table presents the electricity use for the City's highest energy consuming facilities in 2018:

Table 1. 2018 Municipal Facility Electricity Usage

Municipal Facility	Address	Electricity Cost ($/year)	Electricity Usage (kWh/year)
City Hall	23825 STUART RANCH RD	$67,484	510,853
Medical Office and Pharmacy	23661 PACIFIC COAST HWY	$6,580	43,579
EV Charging Station	23555 CIVIC CENTER WAY	$4,484	30,630
Michael London Center at Bluffs Park	24250 PACIFIC COAST HWY	$4,333	27,167
Big Rock Mesa Landslide Asst Dist	20737 1/2 COOL OAK WAY	$2,035	11,557
Big Rock Mesa Landslide Asst Dist	20394 1/2 SEABOARD RD	$1,486	8,474
Big Rock Mesa Landslide Asst Dist	20434 1/2 SEABOARD RD	$1,184	6,259
Big Rock Mesa Landslide Asst Dist	20250 INLAND LN	$1,143	6,118

Big Rock Mesa Landslide Asst Dist	20364 1/2 SEABOARD RD	$1,022	5,139

Table 2. 2018 Municipal Operations Electricity Usage by Address Graphic



Key: Displays the top 10 consuming Buildings. Columns represent Cost, Area represents Consumption.

Based on the data above, the facilities and/or operations with the highest energy use are: City Hall, Medical Office and Pharmacy, EV Charging Stations, Michael Londen Center at Bluffs Park, and the Big Rock Mesa Landslide Assistance Districts. The City spends $105,691 on building energy costs annually, which accounts for 63% of the City's total energy costs.

After facilities, Pumping accounts for the second highest using sector by cost and consumption. Though a relatively small portion of the City's energy use, it accounts for almost 378,633 kWh annually. Street and traffic lights follow with a total consumption of 119,835 kWh followed by a few outdoor park lighting accounts accounting for 388 kWh annually.

Together, the City of Malibu's Annual energy costs total nearly $170,000 annually on SCE bills.

Agency Energy Use	Annual Electric Cost	Annual Electric Consumption (kWh)	Annual GHG Emissions (lbs CO_2)
Agency Buildings	$105,691	699,184	361,478
Pumping	$41,918	378,633	195,753
Street & Traffic Lights	$20,625	119,835	61,955
Outdoor & Park Lights	$181	388	201

Opportunities to optimize the efficiency of water pumping operations are being evaluated. The City will also continue to work to identify additional opportunities to reduce energy use by pursuing facility audits and identifying energy efficiency projects.

2.3 Current Energy Programs

The City of Malibu has established a Sustainability Committee to advise the City Council on policies, plans and broad programs as they relate to energy use, compliance with environmental laws, and the protection of the environment.

The City is also a participating member of the West Side Energy Partnership, a local government partnership between six cities, SCE, SoCalGas, and implemented by The Energy Coalition. The partnership supports the City in implementing and promoting energy efficiency at a municipal and community-wide level. The City of Malibu has been involved in the West Side Energy Partnership since its expansion in 2018.

Through participating in the West Side Energy Partnership, Malibu also participates in SCE's ELP model, which offers enhanced rebates and incentives as cities achieve measurable energy savings, reduce peak-time electricity demand, plan for energy efficiency strategies, and educate the community. The City is currently at Silver Tier Level making it eligible for an additional $0.06 per kWh on qualifying energy projects.

The City is enrolled in the SoCalREN Public Agency Program, which works side-by-side with city staff to identify energy saving measures and provide support from designing performance specifications through construction to help accomplish energy efficiency projects.

As both an initiative for the City and community, Malibu joined the Clean Power Alliance (CPA) of Southern California in 2017. The alliance is a coalition of cities that have come together to purchase electricity in the wholesale power market, and sell it to their residents and businesses at competitive rates. The CPA intends to purchase cleaner and more renewable electricity and offer it to customers at a cost that is less that Southern California Edison. The CPA will expect to have more than 1 million residential accounts and a quarter million commercial accounts by the end of the year and will help decrease greenhouse gas emissions by 9%.

Finally, Malibu is a participant in the Beacon Program that assists in tracking the City's progress towards Greenhouse Gas emissions reductions and allows participants to gain recognition for voluntary and compliance measures.

SECTION 3: CITY OF MALIBU TARGET REDUCTION GOALS

The City of Malibu's energy efficiency goals will help the City meet the targets identified in the U.S. Mayors Climate Protection Agreement, AB 32, and SB 350. The specific goals that the City has identified is to reduce the City's municipal energy use by 50% (vs. 2006 baseline) by 2030.

The City's 2006 municipal electricity baseline as provided by SCE is 200,197 kWh. The City has already met its goal of 37% reduction, equivalent to 74,051 kWh. The City will continue to strive for 50% reduction in municipal energy use and reach a total savings of 100,098 kWh.

SECTION 4: CITY OF MALIBU ACTION STEPS

The City's Environmental Sustainability Department (Department) will be responsible for implementing this Energy Action Plan.

4.1 Municipal Facility Energy Efficiency Projects

As indicated above, the City has already achieved 74,051 kWh savings since 2006 and continues to look into the feasibility of several projects. Initial potential projects include further upgrades at City Hall, participating in SCE's Direct Install program that offers free energy efficiency equipment and installation, and potential street light upgrades.

The City is also taking preliminary looks at conducting an audit at City parks through the SoCalREN. Such projects at municipal parks could save the City roughly $200 annually, equating to energy savings of 194 kWh.

Longer term, the City plans to continue to seek opportunities to upgrade key infrastructure that are major electric users such as pumping, which could save the City upwards of $2,000 annually or 18,458 kWh.

4.2 Funding of Projects

Through participation in various energy efficiency programs, the City is working to identify all available incentives and rebates for energy projects. As the City achieves additional municipal energy savings, it will move up in SCE's ELP model and, in turn, earn additional enhanced incentives towards future projects. These incentives will assist the City in funding additional energy efficiency projects in the pipeline.

The City anticipates funding current energy efficiency projects from a variety of sources including, but not limited to: SCE's On-Bill Financing (no interest loan paid for by the energy savings of the project), grants, and the Capital Improvement Program.

4.3 Policies & Programs

The City has initiated strategies to implement energy efficiency and conservation in both municipal activities and in the community. The City is working to reduce the carbon footprint of municipal operations to serve as the leader for the community and support the construction of buildings that are energy efficient and incorporate clean, renewable, energy sources.

To further support working towards energy efficiency, the City is determining feasibility of various policies and ordinances including adopting an Energy Conservation Ordinance that would ensure that new residential and commercial buildings implement energy efficient features including voluntary measures in the 2010 CA Green Building Standards Code.

4.4 Tracking

The Department will measure reductions in energy use through a close collaboration with the City's electric and gas utilities, SCE. Quarterly, through the ELP, the City will receive energy savings updates from SCE that outline their anticipated energy use reduction from 2006 based on deemed savings from energy efficiency projects.

The Department can also request energy use data by facility or service account from SCE. By comparing that data over time, the Department will be able to determine whether the energy savings goals outlined in this plan are being achieved. If not, that comparison will provide information regarding where energy savings are not being achieved and where extra efforts should be targeted.

The City is also currently adopting the use of the Environmental Protection Agency's (EPA) Energy Star Portfolio Manager (ESPM) to assist with tracking and benchmarking municipal energy use.

4.5 Implementation for SCE's Energy Leader Model

Malibu's Energy Action Plan will be considered "implemented" (Platinum Level criteria of SCE's ELP model) when the following actions are completed:

1. The City has considered the identification of a dedicated source of funding for energy efficiency projects.
2. The City has integrated energy efficiency into other relevant policy documents, as applicable.

The City of Malibu has exceeded its 20% energy savings goal through the ELP and is working to identify additional kWh savings through energy efficiency projects and associated funding opportunities. To elevate to the Gold and Platinum Tier, the City will continue to complete community outreach activities to reduce demand and promote energy efficiency.

The Energy Action Plan will be revised, as necessary, to reflect the City's progress towards meeting its goals as well as its identification of additional energy efficiency projects which will help further its objectives.

SECTION 5: CONCLUSION

This Energy Action Plan presents goals for municipal energy savings, as well as action steps to achieve these goals. While the City has a history of understanding the importance of energy efficiency, it has never created an Energy Action Plan.

By presenting the energy savings goals and outlining steps to achieve these goals, this plan will help the City to move forward and track its efforts to become more energy efficient. In so doing, it will help save the City money, improve the environment, contribute towards reaching greenhouse gas reduction goals, and serve as a model for the community at-large.