



**STATE OF HAWAII  
DEPARTMENT OF EDUCATION**

P.O. BOX 2360  
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

December 29, 2021

The Honorable Ronald D. Kouchi, President  
and Members of the Senate  
State Capitol, Room 409  
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki, Speaker  
and Members of the House of Representatives  
State Capitol, Room 431  
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

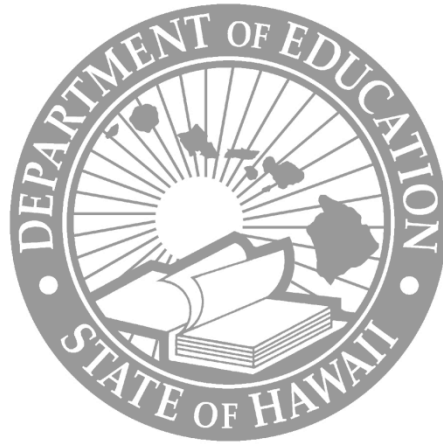
For your information and consideration, I am transmitting a copy of the annual report, Sustainable Schools Initiative, pursuant to Section 302A-1510, Hawaii Revised Statutes (HRS). In accordance with Section 93-16, HRS, I am also informing you that the report may be viewed electronically at: <http://www.hawaiipublicschools.org/VisionForSuccess/SchoolDataAndReports/StateReports/Pages/Legislative-reports.aspx>.

Sincerely,

Keith T. Hayashi  
Interim Superintendent

KTH:at  
Enclosure

c: Legislative Reference Bureau  
Hawaii State Public Library System  
University of Hawaii  
Office of Facilities and Operations



State of Hawaii  
Department of Education

# **Annual Report on Sustainable Schools Initiative**

December 2021

Section 302A-1510, Hawaii Revised Statutes (HRS), requires the Hawaii State Department of Education (Department) to annually report on the following: 1) the overall progress toward the net-zero energy goal, 2) its plans and recommendations to advance the net-zero goal, and 3) any challenges or barriers encountered or anticipated by the Department in meeting the net-zero energy goal.

**Annual Report on the Hawaii State Department of Education’s (Department)  
Sustainable Schools Initiative 2021**

**1. OVERALL PROGRESS TOWARD THE NET-ZERO ENERGY GOAL SET FORTH  
IN SECTION 302A-1510(a), HRS:**

Hawaii School Facilities Energy Report Comparison of Fiscal Year (FY) 2020 and FY 2021				
	<u>FY 2020</u>		<u>FY 2021</u>	
School Facilities Energy	kWh	\$	kWh	\$
Utility Energy <sup>(1)</sup>	103,446,645	\$ 34,100,088	95,080,156	\$ 29,131,848
Renewable Energy	23,669,203	\$ 5,449,049	23,368,880	\$ 5,529,904
<b>Total Energy</b>	<b>127,115,848</b>	<b>\$ 39,549,137</b>	<b>118,449,036</b>	<b>\$ 34,661,752</b>
<i>1.</i> Utility Energy includes Hawaiian Electric Company (HECO), Hawaii Electric Light Company (HELCO), Kauai Island Utility Cooperative (KIUC), and Maui Electric Company (MECO).				

The year-over-year (YOY) percentage changes and the percent of total energy are provided in the table below:

	Year-Over-Year Change (%)		Percent of Total Energy (kWh)	
School Facilities Energy	kWh	\$	FY 2020	FY 2021
Utility Energy <sup>(1)</sup>	-8%	-15%	81%	80%
Renewable Energy	-1%	1%	19%	20%

For the full FY 2021, total electricity consumption across all public campuses statewide decreased 7% from FY 2020. The total cost of electricity decreased by 12%.

YOY, utility electricity consumption decreased 8%. The YOY cost of utility electricity decreased 15% due to lower utility rates. Utility energy comprises 80% of the Department’s electricity consumption. The average cost of utility electricity for FY 2021 was \$0.3064 per kWh compared to \$0.3296 in FY 2020, a decrease of 7.1%.

YOY, renewable electricity consumption across all public campuses statewide was down 1% from FY 2020. However, due to contractual increases in the rates paid to Power Purchase Agreement providers for many campuses, the annual cost of renewable electricity increased by 1%.

### School Electricity Consumption

Million kWh

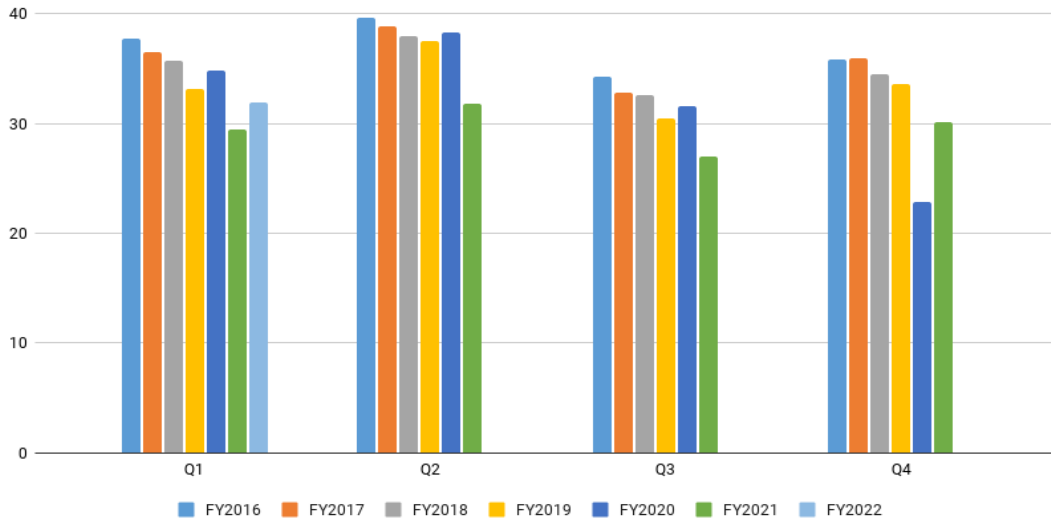


Figure 1 - Total Electricity Consumption by FQ

The major factor affecting consumption during FY 2021 was the closure of campuses due to the COVID-19 pandemic. Although school facilities did require a certain level of power utilization during the closures, this was greatly reduced. On a YOY basis, the consumption in the fourth quarter (Q4) of FY 2021 rebounded sharply from the extremely low consumption in Q4 of FY 2020, but was still lower than consumption in Q4 of FY 2019.

Similarly, the rebound in school facility consumption has continued in the first quarter (Q1) of FY 2022 compared to Q1 of FY 2021, but is still lower than consumption in Q1 of FY 2020.

In FY 2021, the percent consumption of renewable energy increased to 19.7% from 18.7% in FY 2020. This was due primarily to a 15% reduction in the consumption of utility-supplied energy. Also, the reduction in utility-supplied energy was significantly greater than the 1% reduction in renewable energy consumption, which probably occurred from natural variation in solar insolation due to weather and cloud cover.

### Solar Fraction

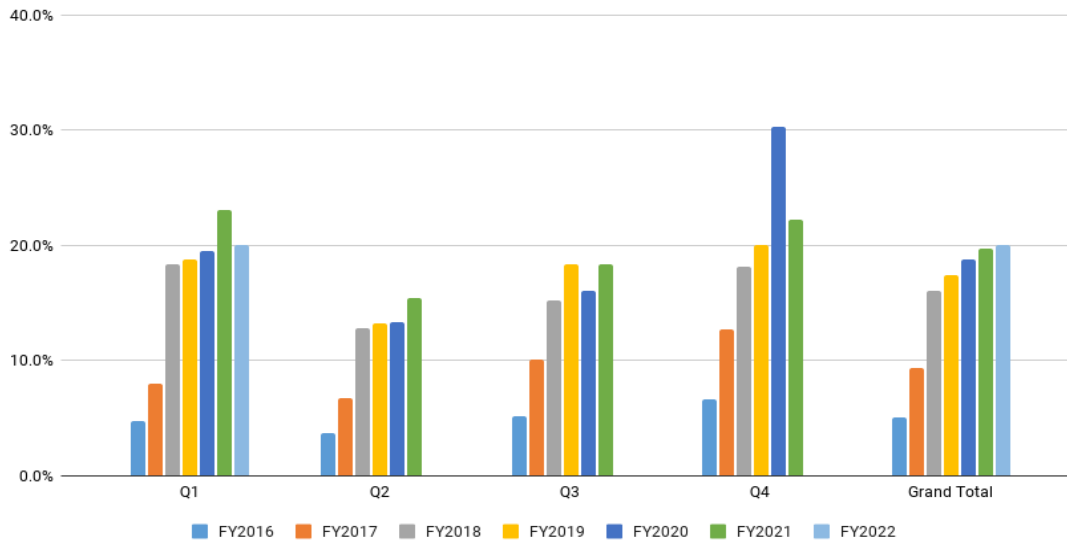


Figure 2 – Solar Fraction of Electricity Consumption for FY 2016-2021

Note : FY 2020 Q4 spike is due to a combination of low utility consumption and normal solar production

### Solar Production

Million kWh

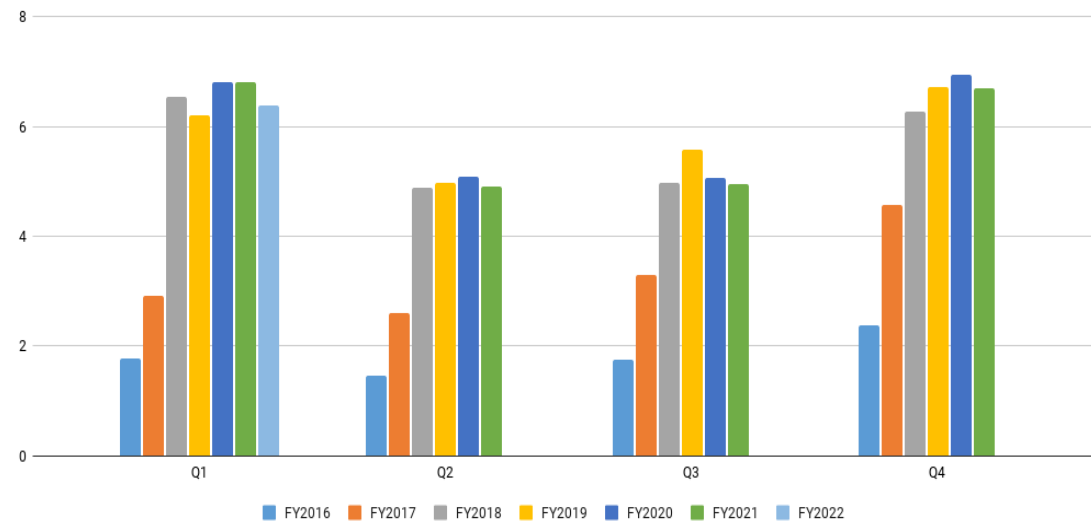


Figure 3 – Solar Energy Production for FY 2016-2021

## **2. PLANS AND RECOMMENDATION TO ADVANCE THE NET-ZERO ENERGY GOAL SET FORTH IN SECTION 302A-1510(a), HRS:**

It is not economically feasible to substantially add to the production of alternative energy at school campuses under current market conditions. Although the cost of solar panels continues to decrease, the cost to upgrade roofs or install parking canopies is cost-prohibitive.

Meanwhile, United States-based thin-film manufacturer, Sunflare, has been promoting its CIGS (copper, indium, gallium, and selenium) solar panels for weight-constrained rooftops. However, it remains to be proven that this technology is a sustainable alternative.

The major constraint to further advances in achieving net-zero school campuses in Hawaii is the lack of a safe, sustainable, and cost-effective energy storage system. The most likely candidate is the iron flow battery, but the technology needs several more years of development.

Although the Department continues to explore ways to make schools more sustainable, the Department recommends that the Sustainable Schools Initiative be transformed to focus, in the intermediate-term, on lower-cost energy conservation measures rather than net-zero consumption.

## **3. CHALLENGES OR BARRIERS ENCOUNTERED OR ANTICIPATED IN MEETING THE NET-ZERO ENERGY GOAL SET FORTH IN SECTION 302A-1510(a), HRS:**

In FY 2021, the average cost of utility electricity was \$0.31 per kWh. However, as a planning tool, utilizing the average cost is misleading. Only a portion of the average cost is avoidable as long as the school campus remains connected to the grid. Thus, reducing utility energy consumption by 1 (one) kWh will reduce utility electricity cost by less than \$0.31. The fixed component of the utility energy bill reduces any economic savings that are achieved by replacing carbon-based fuels with lower-cost alternative energy.

It is anticipated that the problem will worsen in future years as the underlying infrastructure of the electric companies shifts to include more renewable energy sources. Renewable energy sources, by their nature, have large fixed costs and small marginal costs. As HECO shifts its generating infrastructure to more renewable sources, its rate structure will shift toward a larger fixed component and a smaller incremental component.

The mandate that public school facilities achieve net-zero energy consumption 10 years ahead of the public utilities, in effect, sets up the Department as a de facto competitor to the public utilities in producing renewable energy economically across the State of Hawaii. Since there is no economic benefit to the State for such competition, the Department recommends that Section 302A-1510(a), HRS be revised to complement the mandate placed on the public utilities. Recommended language is provided below:

### §302A-1510 Sustainable Schools Initiative

- (a) ~~The department shall establish a goal of becoming net zero with respect to energy use, producing as much renewable energy as the department consumes across all public school facilities, by January 1, 2035.~~
- (a) The department shall establish goals of renewable energy use that is complimentary and supportive of §269-92, which requires 100% renewable energy electricity consumption by 2045.
- (b) The department shall use the amount and value of energy consumed by the department across all public school facilities during the 2015-2016 fiscal year as the benchmark for measuring the department's progress toward the energy usage goals set forth in subsection (a).
- (c) The department shall submit an annual report that shall include information on:
- (1) The overall progress toward the ~~[net zero energy goal]~~ energy goals set forth in subsection (a);
  - (2) Its plans and recommendations to advance the ~~[net zero energy goal]~~ energy goals set forth in subsection (a);
  - (3) Any challenges or barriers encountered or anticipated by the department in meeting the ~~[net zero energy goal]~~ energy goals set forth in subsection (a).

Figure 4 – Proposed Section 302A-1510, HRS; new language underlined

### §269-92 Renewable Portfolio Standards

- (a) Each electric utility company that sells electricity for consumption in the State shall establish a renewable portfolio standard of:
- (1) Ten percent of its net electricity sales by December 31, 2010;
  - (2) Fifteen percent of its net electricity sales by December 31, 2015;
  - (3) Thirty percent of its net electricity sales by December 31, 2020;
  - (4) Forty percent of its net electricity sales by December 31, 2030;
  - (5) Seventy percent of its net electricity sales by December 31, 2040; and
  - (6) One hundred percent of its net electricity sales by December 31, 2045.

Figure 5 – Section 269-92 Renewable Portfolio Standards, HRS

If the future cost per kWh of onsite renewable energy and energy storage technologies were to decrease sufficiently, the financial cost of these technologies may make net-zero consumption a more fiscally achievable goal.

The results of the FY 2021 complementary Sustainable Schools energy policy are illustrated below:

- DOE self-generated solar energy share = 19.7%
- HECO-provided renewable energy share =  $34.5\% \times (100.0\% - 19.7\%) = 27.7\%$
- Combined renewable energy share =  $19.7\% + 27.7\% = 47.4\%$

Note that, in FY 2021 compared to FY 2016, conservation, considered as a renewable energy source, provided (at a much lower cost than solar):

- Conservation energy share =  $(147.6 - 118.5) / 147.6 = 29.1 / 147.6 = 19.7\%$

## Act 176, SLH 2016 Sustainable Schools

FY	HIDOE Consumption	Change	% Renewable Self Generation	% Renewable of HECO Provided Energy
FY 2021	118.5M kWh	-7.1% or 9.1M kWh reduction*	19.7% solar power	DOE Share of HECO @ 27.7%
FY 2020	127.6M kWh	-5.2% or 7.1M kWh reduction	18.7% solar power	
FY 2019	134.7M kWh	-4.4% or 6.1M kWh reduction	17.4% solar power	
FY 2018	140.8M kWh	-2.3% or 3.3M kWh reduction	16.1% solar power	
FY 2017	144.1M kWh	-2.4% or 3.5M kWh reduction	9.3% solar power	
FY 2016	147.6M kWh	Statutory Benchmark	5.0% solar power	

\* COVID shutdown

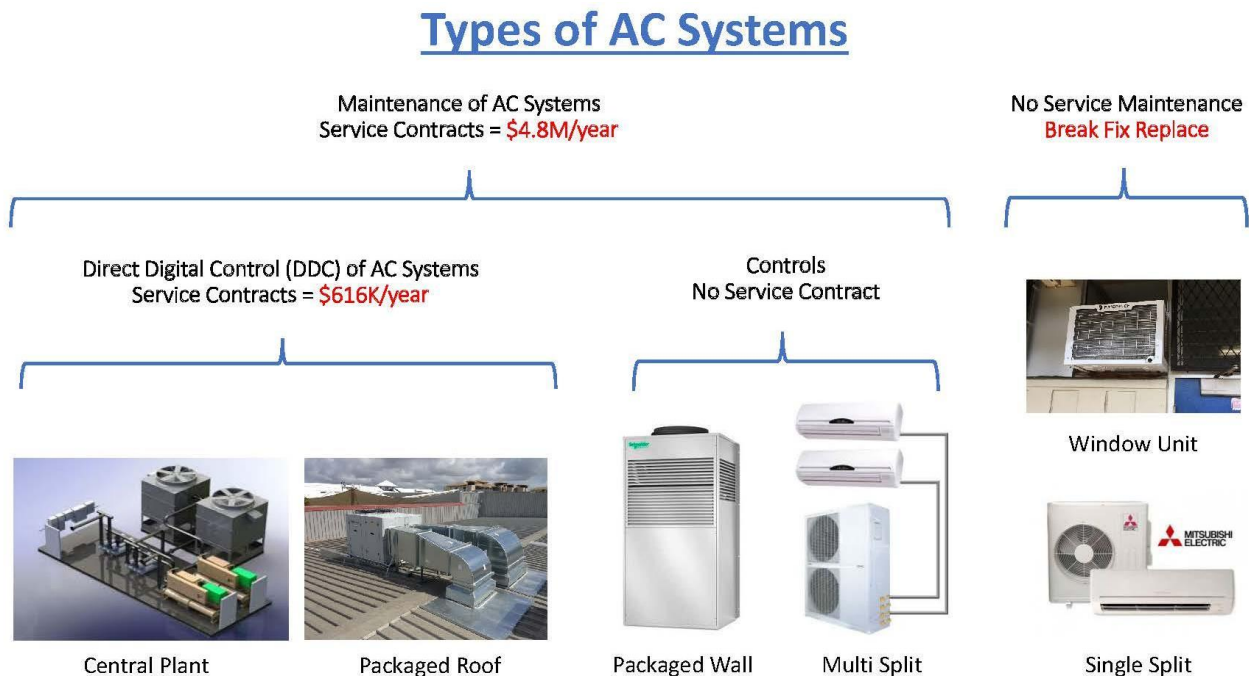


#### 4. IMPLEMENTATION OF MEASURES TO COOL PUBLIC SCHOOL CLASSROOMS SET FORTH IN SECTION 302A-1510(e), HRS:

The cooling of Hawaii schools is a significant undertaking due to the number of classrooms involved (~10,300 classrooms) and the age of the existing cooling equipment. Moreover, much of the existing facility wiring was not designed to supply the required additional electrical load for new air conditioning. Required wiring upgrades may be prohibitively costly even before the new cooling equipment is installed.

#### Types of Air Conditioning Systems

The Department has service contracts on its multi-unit air conditioning systems that total \$4.8 million a year. For single-unit systems, there is no service contract as it is more cost-effective to replace the single unit at the end of its life.



#### Deferred Maintenance

The Department has ~\$695 million in installed air conditioning. However, it is expected to cost ~\$188.5 million to replace all of the air conditioning systems that are over 20 years old. The Department has already spent \$42 million from the Green Energy Money Saver loan to help address some of its air conditioning needs. However, much more funding would need to be appropriated to fully address the backlog.



## AC Deferred Maintenance

Island	Schools	Installed AC	Replacements GEMS Loan	AC > 20 years old Replacement Costs
Oahu 01 Honolulu 02 Central 03 Leeward 04 Windward	172	\$500,000,000	\$42,000,000	\$95,000,000
05 Hawaii	43	\$100,000,000		\$35,000,000
06 Maui	32	\$70,000,000		\$55,000,000
07 Kauai	16	\$25,000,000		\$3,500,000
<u>Total</u>	<u>263</u>	<u>\$695,000,000</u>	<u>\$42,000,000</u>	<u>\$188,500,000</u>

The following are pictures of some aging, but currently functioning air conditioning systems in use at our public schools.





## Air Conditioning Design Standards

The Department has found that decentralized air conditioning systems are much more economical over the service life of the system than complex centralized air conditioning systems.

### AC Design Standards Complex Unsustainable Systems

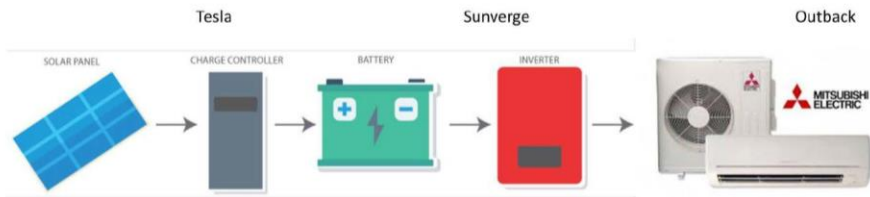


Replacement Imminent	Operational
1) Mililani Middle 1998	7) Ewa Makai Middle (incl. cafeteria) 2011
2) Mililani Mauka Elementary 1993	8) Kapolei Middle 1999
3) Maili Elementary (incl. cafeteria) 1966	9) Kapolei High 2000
4) Keaaui High 1999	10) Roosevelt HS Auditorium
5) Holomua Elementary 1995	11) Keaaui Elementary 1999
6) Mililani Ike Elementary 2004	12) Keoneula Elementary 2007
	13) Konawaena Elementary 2000
	14) Nanaikapono Elementary 2004
	15) Waialeale Elementary 1998

#### Central Plant Systems

- Complex to operate and maintain
- System breaks entire school shuts down
- ≈ \$10M - \$20M to replace central plants

### AC Design Standards Complex Unsustainable Systems



# AC Design Standards

## Sustainable Systems



Packaged Roof



Packaged Wall



Multi Split



Single Split



Window or Wall

### Air Conditioning Addition Options - School Directed Air Conditioning (SDAC)



## AC Addition Options

\$8M = 1000 Classrooms with Window Air Conditioners

\$60M = 1000 Classrooms with Split Air Conditioners

\$120M = 1000 Classrooms with Package Air Conditioners

Classrooms	Window AC	Split AC	Package AC
<ul style="list-style-type: none"> <li>• With AC</li> <li>• 6000 classrooms</li> <li>• \$670M inventory</li> <li>• \$42,495,928 electricity bill all schools</li> </ul>	Cool with Window AC Least expensive Less efficient New dual inverter technology Noisy	Cool with Split AC Expensive More efficient Requires conduits Quiet	Cool with Package AC Very expensive Most efficient Requires ducts Quiet
Estimate Without AC = 5000 Cost	Estimate \$8K per classroom \$40,000,000 \$8,800,000	Estimate \$60K per classroom \$300,000,000 \$6,984,760	Estimate \$120K per classroom \$600,000,000 \$6,146,000
Additional Electricity Cost			

To air condition the remaining ~5,000 classrooms without air conditioning, the most cost-effective option would use window air conditioning. Meanwhile, the most expensive option would be to equip the remaining classrooms with package air conditioning at a cost of ~\$606 million.

Under the SDAC program, 3,341 window air conditioning units have been installed with an additional 778 units in progress.

As a component of the SDAC program, schools that are interested in adding window air conditioners need to request that a building electrical assessment be conducted to determine if there is sufficient electrical capacity to handle the additional load of the air conditioning. Thus far, 682 electrical assessments have been performed with an additional 257 pending.

The Department is facing some difficulties in acquiring up-to-date data on the existing equipment installed in classrooms. There are over 10,300 classrooms in Hawaii's 256 public schools. An

average of 40 classrooms per school would take over 10 person-hours to conduct just a 15-minute inspection of each room. To conduct such inspections regularly would require additional personnel.

The table below provides a list of the scope of facilities at each Department school:

<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Ahuimanu El Total	18	368	15,586
Aiea El Total	21	420	18,762
Aiea High Total	67	1,802	75,676
Aiea Intermediate Total	43	1,111	42,187
Aikahi El Total	24	498	23,380
Aina Haina El Total	31	735	26,489
Ala Wai El Total	30	631	25,149
Aliamanu El Total	42	877	35,640
Aliamanu Middle Total	49	1,222	47,942
Aliiolani El Total	22	417	20,785
Alvah Scott El Total	28	620	23,541
Anuenue El Total	27	601	23,286
August Ahrens El Total	70	1,521	61,169
Baldwin High Total	91	2,213	87,783
Barbers Point El Total	33	693	36,816
Campbell High Total	143	3,654	156,828
Castle High Total	103	2,653	118,132
Central Middle Total	35	920	30,381
Chiefess Kamakahelei Middle Total	64	1,674	67,103
de Silva El Total	21	449	17,712
Dole Middle Total	51	1,317	54,469
Eleele El Total	22	472	18,621
Enchanted Lake El Total	24	524	23,326
Ewa Beach El Total	38	797	36,141
Ewa El Total	46	987	43,609
Ewa Makai Middle Total	48	1,223	55,385
Farrington High Total	129	3,348	139,941
Fern El Total	25	562	23,196
Haaheo El Total	8	172	5,609
Hahaione El Total	28	587	24,430

<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Haiku El Total	20	384	14,978
Hale Kula El Total	42	857	29,252
Haleiwa El Total	26	472	22,467
Hana High & El Total	31	730	37,064
Hanalei El Total	14	315	12,229
Hauula El Total	15	325	12,900
Hawaii School for the Deaf and Blind Total	18	428	10,545
Heeia El Total	37	755	34,116
Helemano El Total	31	622	26,234
Hickam El Total	29	601	25,093
Highlands Int Total	57	1,446	64,940
Hilo High Total	82	2,013	80,440
Hilo Int Total	36	989	45,046
Hilo Union El Total	26	564	20,338
Ho'okele El Total	45	900	46,031
Hokulani El Total	19	419	17,466
Holomua El Total	51	1,054	42,618
Holualoa El Total	28	575	19,448
Honaunau El Total	14	276	11,788
Honokaa El Total	17	364	15,968
Honokaa High & Int Total	54	1,509	52,164
Honowai El Total	35	771	31,463
Hookena El Total	17	308	14,568
Iao Int Total	50	1,292	40,615
Iliahi El Total	23	465	21,439
Ilima Int Total	56	1,397	60,802
Iroquois Point El Total	36	805	31,366
Jarrett Middle Total	31	746	32,222
Jefferson El Total	20	382	21,531
Ka'a'awa El Total	8	172	7,137
Kaahumanu El Total	29	629	25,318
Kaala El Total	25	539	21,590
Kaelepulu El Total	7	160	11,782
Kaewai El Total	21	433	18,232

<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Kahakai El Total	35	759	30,870
Kahala El Total	27	550	23,480
Kahalu'u El Total	17	349	15,148
Kahuku El Total	22	492	18,495
Kahuku High & Int Total	97	2,473	104,955
Kahului El Total	45	955	36,523
Kailua El Total	27	524	24,760
Kailua High Total	70	1,847	90,513
Kailua Int Total	56	1,436	62,416
Kaimiloa El Total	32	689	27,716
Kaimuki High Total	78	2,029	78,921
Kaimuki Middle Total	56	1,512	60,921
Kainalu El Total	29	626	24,714
Kaiser High Total	64	1,668	84,900
Kaiulani El Total	24	511	22,084
Kalaheo El Total	32	646	22,005
Kalaheo High Total	63	1,663	85,235
Kalakaua Middle Total	53	1,354	55,785
Kalama Int Total	57	1,396	52,980
Kalani High Total	63	1,691	76,072
Kalaniana'ole El & Int Total	25	579	21,125
Kaleiopuu El Total	49	1,059	44,511
Kalihi El Total	30	711	27,737
Kalihi Kai El Total	35	784	33,887
Kalihi Uka El Total	17	362	16,240
Kalihi Waena El Total	29	580	26,428
Kamali'i El Total	37	812	32,815
Kamehameha III El Total	39	820	30,675
Kamiloiki El Total	23	473	25,308
Kaneohe El Total	29	619	26,552
Kanoelani El Total	37	743	33,512
Kapa'a El Total	52	1,143	44,954
Kapa'a High Total	66	1,791	75,689
Kapa'a Middle Total	47	1,169	46,350



<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Kapalama El Total	31	666	25,801
Kapiolani El Total	23	507	22,157
Kapolei El Total	46	964	38,828
Kapolei High Total	174	4,495	151,759
Kapolei Middle Total	73	1,744	73,616
Kapunahala El Total	30	628	27,228
Kau High & Pahala El Total	39	998	43,927
Kauai High Total	87	2,254	71,405
Kauluwela El Total	17	354	14,079
Kaumana El Total	15	324	12,017
Kaumualii El Total	33	690	30,027
Kaunakakai El Total	17	364	13,852
Kawananakoa Middle Total	50	1,315	49,194
Ke Kula o Ehunuikaimalino Total	14	300	9,777
Kea'au El Total	41	891	34,283
Kea'au High Total	81	2,157	75,549
Keaau Middle Total	46	1,204	55,376
Kealakehe El Total	55	988	47,121
Kealakehe High Total	80	2,104	101,756
Kealakehe Int Total	58	1,519	59,300
Keaukaha El Total	23	452	17,987
Kekaha El Total	18	382	15,417
Kekaulike High Total	81	1,999	92,354
Keolu El Total	10	217	8,484
Keone'ula El Total	48	1,061	41,724
Keonepoko El Total	36	696	32,170
Kihei El Total	65	1,371	57,081
Kilauea El Total	19	414	15,007
Kilohana El Total	8	185	7,082
King Int Total	55	1,384	78,149
Kipapa El Total	41	869	36,222
Kohala El Total	21	443	20,250
Kohala High Total	32	810	36,176
Kohala Middle Total	15	362	9,770

<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Koko Head El Total	22	448	21,046
Koloa El Total	20	432	17,130
Konawaena El Total	30	620	26,698
Konawaena High Total	62	1,615	74,931
Konawaena Middle Total	34	785	29,059
Kuhio El Total	18	379	15,772
Kula El Total	27	556	24,013
Lahaina Int Total	40	1,001	37,871
Lahainaluna High Total	57	1,551	62,758
Laie El Total	42	915	39,524
Lanai High & El Total	41	1,012	60,598
Lanakila El Total	22	451	19,496
Lehua El Total	23	460	21,479
Leihoku El Total	45	1,020	39,868
Leilehua High Total	109	2,820	121,610
Lihikai El Total	52	1,081	44,647
Liholiho El Total	22	424	18,515
Likelike El Total	23	491	21,410
Linapuni El Total	12	240	11,624
Lincoln El Total	27	484	24,500
Lokelani Int Total	39	1,017	38,156
Lunalilo El Total	25	521	22,771
Ma'ema'e El Total	28	612	24,906
Maili El Total	48	944	39,613
Makaha El Total	34	655	31,296
Makakilo El Total	24	535	19,996
Makalapa El Total	33	639	29,882
Makawao El Total	35	698	24,278
Manana El Total	22	484	18,868
Manoa El Total	28	578	24,293
Maui High Total	106	2,751	103,297
Maui Waena Int Total	52	1,297	50,693
Mauka Lani El Total	33	706	27,503
Maunaloa El Total	8	172	4,534

<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Maunawili El Total	19	417	16,708
McKinley High Total	115	3,026	107,221
McKinley High - MCSA McKinley Community School Total	28	700	15,285
Mililani High Total	125	3,157	140,859
Mililani Ike El Total	47	990	36,638
Mililani Mauka El Total	48	975	39,331
Mililani Middle Total	80	2,038	79,157
Mililani Uka El Total	34	706	29,529
Mililani Waena El Total	38	793	34,611
Moanalua El Total	32	714	27,744
Moanalua High Total	100	2,673	126,387
Moanalua Middle Total	44	1,155	39,249
Mokapu El Total	37	799	29,690
Mokulele El Total	27	569	23,064
Molokai High Total	42	1,059	44,373
Molokai Middle Total	14	350	13,862
Momilani El Total	17	365	13,891
Mountain View El Total	27	597	22,270
Na'alehu El Total	27	563	19,164
Nanaikapono El Total	54	1,109	39,512
Nanakuli El Total	26	507	26,664
Nanakuli High & Int Total	79	2,131	94,882
Nimitz El Total	34	705	26,777
Niu Valley Middle Total	38	979	40,769
Noelani El Total	21	457	18,701
Nuuanu El Total	16	355	14,063
Olomana Int & High - OYC Only Total	15	382	9,226
Pa'auilo El & Int Total	17	411	15,486
Pahoa El Total	25	526	21,945
Pahoa High & Int Total	55	1,429	66,665
Paia El Total	21	404	13,783
Palisades El Total	23	478	20,804
Palolo El Total	16	329	14,477

<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Parker El Total	23	420	21,833
Pauoa El Total	17	362	15,689
Pearl City El Total	28	572	23,992
Pearl City High Total	115	2,992	146,098
Pearl City Highlands El Total	25	518	26,078
Pearl Harbor El Total	38	795	29,716
Pearl Harbor Kai El Total	27	605	23,549
Pearl Ridge El Total	27	595	23,729
Pohakea El Total	29	574	26,668
Pomaikai El Total	39	762	32,564
Pope El Total	20	429	19,016
Princess Nahienaena El Total	37	796	32,392
Pu'ohala El Total	21	449	19,289
Pu'u Kukui El Total	33	685	30,534
Pu'uhale El Total	18	232	16,054
Pukalani El Total	22	453	19,775
Radford High Total	77	1,953	96,986
Red Hill El Total	29	605	23,729
Roosevelt High Total	80	2,105	82,448
Royal El Total	16	347	13,823
Salt Lake El Total	40	778	34,072
Shafter El Total	18	395	16,451
Solomon El Total	50	1,045	48,686
Stevenson Middle Total	47	1,191	40,938
Sunset Beach El Total	23	497	19,319
Wahiawa El Total	28	590	23,770
Wahiawa Middle Total	58	1,473	60,734
Waiahole El Total	12	208	12,069
Waiakea El Total	42	906	39,644
Waiakea High Total	96	2,492	131,901
Waiakea Int Total	53	1,348	55,853
Waiakeawaena El Total	34	809	29,463
Waialua El Total	32	665	28,142
Waialua High & Int Total	60	1,572	67,035

<i>School Name</i>	Classroom Count	HIDOE Design Enrollment	Sq Ft. Area
Waianae El Total	42	923	34,946
Waianae High Total	109	2,801	133,529
Waianae Int Total	55	1,352	57,755
Waiau El Total	26	547	28,634
Waihee El Total	39	842	35,321
Waikele El Total	32	670	26,424
Waikiki El Total	24	522	21,761
Waikoloa El & Middle Total	42	928	35,352
Wailuku El Total	41	823	35,296
Waimalu El Total	30	623	26,325
Waimanalo El & Int Total	38	844	35,042
Waimea Canyon Middle Total	39	959	36,744
Waimea El Total	30	584	26,598
Waimea High Total	46	1,242	55,399
Waipahu El Total	54	1,231	47,962
Waipahu High Total	125	3,209	145,569
Waipahu Int Total	70	1,750	73,815
Washington Middle Total	58	1,505	52,376
Webling El Total	26	564	23,057
Wheeler El Total	42	832	38,665
Wheeler Middle Total	49	1,281	46,487
Wilcox El Total	48	999	48,259
Wilson El Total	29	595	25,583
<b>Grand Total</b>	<b>10,367</b>	<b>242,777</b>	<b>10,165,825</b>