

University of Alaska Anchorage: Anchorage Campus

FY21 Facilities Benchmarking & Analysis



Comprehensive Facilities Intelligence Solutions





Annual Stewardship

The annual investment needed to ensure buildings will properly perform and reach their useful life *"Keep-Up Costs"*.

Asset Reinvestment

The accumulation of repair and modernization needs and the definition of resource capacity to correct them *"Catch-Up Costs"*

Operational Effectiveness

The effectiveness of the facilities operating budget, staffing, supervision, and energy management.

Service

The measure of service process, the maintenance quality of space and systems, and the customers opinion of service delivery.

Asset Value Change

Operations Success



University of Alaska – Anchorage Peer Institutions

Return on Physical Assets (ROPA+) includes all space at UAA totaling 3.36 Million GSF

Facilities Peer Institutions	Location		
Portland State University	Portland, OR		
The University of Maine	Orono, ME		
University of Alaska Fairbanks	Fairbanks, AK		
University of Iowa	Iowa City, IA		
University of Missouri – Kansas City	Kansas City, MO		
University of Missouri – St. Louis	St. Louis, MO		
University of Southern Maine	Gorham, ME		
West Chester University of PA	West Chester, PA		



Comparative Considerations

Size, technical complexity, region, geographic location, and setting are all factors included in the selection of peer institutions





Space Profile: Anchorage Campus



Anchorage Complexity is Similar to Peers





Institutions arranged by Technical Complexity



Enrollment has Continually Decreased Since 2006



Distance delivery learning has increased by 270% since 2017 at Anchorage campus



University of Alaska – Anchorage On Campus Enrollment

University of Alaska – Anchorage Change in Distance Enrollment

$\mathbf{G} \otimes \mathbf{RDIAN}^{\mathbb{S}}$ *Enrollment refers to on-campus students

7

Minimal Student Presence Results in Density Decline UAA

The impact of almost exclusive distance learning led to Density Factor lower than peers



*Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE

Institutions arranged by Density Factor

KPI Impact- Steps to Reach UAA's Density Target



UAA can add FTE's, decrease usable square footage, or both to reach target

Total on Campus FTE's by Density GSF



*Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE

Institutions arranged by Density Factor



Scenarios to Reach 450 KPI Target:

Of the current building inventory, are their older, high FCI building,

Do these building negatively impact energy use?

• How do those buildings score in general building comfort?

3. Use a targeted approach to decrease GSF, and increase FTE's:

1. Decrease total density GSF by 1.2M (Not practical)

2. Increase total FTE's by 5500 (no space Changes)

Increase FTE's by 2750

which could be divested from?

•

Decrease GSF by 600,000

Qualifying Metrics – Building and Grounds Intensity

Anchorage has larger buildings and fewer buildings per acre than peers



Recent Construction Keeps Campus Young



Peers have managed existing space through renovation, not new construction Campus Age by Category





UAA Will See Dramatic Campus Shifts in 5, 10 years

In ten years, 62% of campus will be over 25 years of age, and cause capital, operational strain



Campus Renovation Age by Category



UAA Has two Distinct Waves of Construction



As UAA facilities age, 1st wave and 2nd wave lifecycles will compete for capital resources







Capital Profile: Anchorage Campus





	Total Operations and Asset Funding				
	Utilities & & Cus	& Grounds stodial	Maintenance & Repair – M&R Fund 1		Repair & Renew - R&R
Alaska Terminology					Fund 2-9
	Operations & Maintenance		& ce	Projects	
Sightlines Terminology	People	Expenses	Utilities	Recurring Project Dollars	One-Time Project Dollars
	Daily Service & PM		Utilities	Annual Stewardship	Asset Reinvestment



Sightlines Package Breakouts



Projects are classified by the category of need they are addressing on campus



UAA Should Focus Capital Investment into Existing Space UAA

Investments into New Space have caused deferral of assets in existing buildings



Defining an Annual Investment Target- Composite

Annual Funding Target: \$32.1 M



FY21 Annual Investment Target

Replacement Value: \$1.94 B





Capital Investment Falls Short of Target at UAA



2016 only year UAA received adequate capital investment into existing space



Total Capital Investment vs. Funding Target



Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Defining an Annual Investment Target- Anchorage

Annual Funding Target: \$27.6 M



FY21 Annual Investment Target

Replacement Value: \$1.65 B



Capital Investment Falls Short of Target at Anchorage

2016 only year Anchorage received adequate capital investment into existing space



Total Capital Investment vs. Funding Target



Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Annual Stewardship has Diminished in Recent Years

Peers have more reliable sources of Annual Stewardship, and spend closer to target

180% University of Alaska - Anchorage Peer Institutions 160% Capital Spending % of Total Target 140% 120% Target 100% 80% 66% 60% 59% 40% 20% 0% $-i^{0}(-i^{0})^{$ Annual Stewardship Asset Reinvestment —Average

Total Capital Investment as a Percent of Funding Target

G RDIAN[®] Fund 1 Funds 7

Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Total Need Grows as Funding Decreases



UAA has seen AR increase at a faster rate than peers in recent years

Total Asset Reinvestment Need \$/GSF

Regionally Adjusted





Facilities Condition Index

Condition based investment strategy



FCI = _____Backlog

Replacement Value

Campus leadership can use FCI categories for different buildings and portfolios, helping to balance capital investments across campus and prioritize project selection

Facilities Condition Index – Buildings Over 25 Years



Facilities Condition Index – Buildings Under 25 Years

Buildings under 25 years of age Average FCI is .13



KPI Impact- Analyzing Age and Building Condition

Identifying costly buildings can help focus future capital investment



FCI by FY21 Renovation Age



KPI Impact- Analyzing Age and Building Condition

Identifying older, high need buildings, can help shape investment strategy



FCI by FY21 Renovation Age



Critical Condition Buildings on Residential Campus

Total buildings identified equal over 363,482 GSF

Building	Age	GSF	FCI
East Hall	23	64,466.00	60%
Templewood Building A	37	9,448.00	71%
Templewood Building D	37	9,448.00	71%
North Hall	23	64,466.00	71%
West Hall	23	64,466.00	74%
Templewood Building C	37	9,448.00	77%
Templewood Building F	37	9,448.00	78%
Main Apartment Complex, Unit 3	36	17,705.00	83%
Templewood Building B	37	4,724.00	87%
Templewood Building E	37	4,724.00	90%
Main Apartment Complex, Unit 6	36	25,742.00	90%
Main Apartment Complex, Unit 4	36	18,001.00	93%
Main Apartment Complex, Unit 1	36	27,855.00	95%
Main Apartment Complex, Unit 2	36	16,815.00	97%
Main Apartment Complex, Unit 5	36	16,726.00	98%

Total on Campus FTE's by Density GSF



Critical Condition Buildings on Main Campus

Total buildings identified equal over 591,619 GSF

Building	Age	GSF	FCI
Eugene Short Hall	51	23,899.00	31%
Consortium Library (Original 1972 Section)	16	90,796.00	31%
Custodial Storage Shed	37	384.00	33%
Lucy Cuddy Hall	51	27,927.00	34%
Administration / Humanities Building	38	52,008.00	35%
Greenhouse Storage	38	192.00	38%
Grounds Irrigation Equipment Shop	37	187.00	40%
Enrollment Services Center	38	38,272.00	41%
Wendy Williamson Auditorium	47	32,853.00	42%
Fine Arts Building	35	104,090.00	42%
Social Sciences Building	47	63,875.00	43%
Grounds Equipment Shop	37	187.00	44%
Professional Studies Building	49	87,351.00	47%
Student Union	44	44,962.00	47%
Grounds Staff Building	37	552.00	48%
Sally Monserud Hall	51	22,069.00	54%
Greenhouse	36	1,727.00	70%
Grounds Main Office Building	37	288.00	79%

Total on Campus FTE's by Density GSF







Operations Success: Anchorage Campus





	Total Operations and Asset Funding					
	Utilities & Grounds & Custodial		Maint	enance & Repair – M&R	Repair & Renew - R&R	
Alaska Terminology			Fund 1		Fund 2-9	
	Operations & Maintenance		се се	Projects		
Sightlines Terminology	People	Expenses	Utilities	Recurring Project Dollars	One-Time Project Dollars	
	Daily Service & PM		Utilities	Annual Stewardship	Asset Reinvestment	



Facilities Operating Expenditures



Anchorage has significantly reduced its Daily Service expenditures in recent years Facilities Operating Actuals



Budget Cuts Limit Purchasing Power



Operating spend is 50% less than if spending kept up with inflation

Facilities Operating Actuals



Facilities Operating Expenditures



Anchorage spends 40% less than peers on Daily Service

Facilities Operating Actuals Regionally Adjusted





Anchorage Campus Spends More on PM than Peers

Anchorage stretches limited resources by focusing on extending life cycles through PM




Utility Operating Expenditures Compared to Peers

Anchorage has decreased operating utility expenditures and spends less than Peers

UAA versus Peer Utility \$ per GSF

Regionally Adjusted





Total Energy Consumption



Anchorage has consumed less than peers, especially since 2015



Total Energy Consumption vs. Peers



Total Energy Consumption



When normalizing by degree days, UAA has consumed less than peers throughout analysis Total Energy Consumption vs. Peers



Energy Expenses are Increasing Over Time



Anchorage campus has higher energy costs than peers, when normalized by region



Differences in Unit Costs are Growing vs. Peers



Anchorage has seen unit cost of electricity and fossil increase above peers

Regionally Adjusted \$12 \$10 \$8 \$/MMBTU \$6 \$4 \$2 \$0 ■ UAA ■ Peers

Fossil Fuel Unit Cost



Electric Unit Cost

Regionally adjusted

■ UAA ■ Peers

Maintenance Staffing Coverage



GSF per FTE jumps in FY21 as maintenance FTEs are reduced



Maintenance Metrics

Anchorage has similar supervision, spends less on materials, covers more GSF than peers

20

15

10

5

0

FTE/Super



Maintenance Staffing





General Repair/ Impression



Institutions arranged by Technical Complexity

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*Inspection data from FY19

Custodial Staffing Coverage



Custodial staffing keeps pace with campus growth





Custodial Metrics



Anchorage has equal rates of staffing & material spending as peers, less supervision Custodial Staffing Custodial Supervision









Institutions arranged by Density Rating



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*Inspection data from FY19

Grounds Staffing Coverage



Coverage increases as the department reduces in size



Grounds Metrics



Decreases in grounds and temp staff result in far higher rates of coverage than peers **Grounds Staffing**







Grounds Supervision

Grounds Inspection Score



Institutions arranged by Grounds Intensity

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*Inspection data from FY19

Key Takeaways



UAA is a young campus compared to peers. However, this young campus age may be misleading, because it is due to new construction of space. The Anchorage campus has increased their size by over 800,000 GSF during the course of this analysis. The newer, younger, space will eventually, if not already, compete for resources with the older space on campus.



Capital investment should focus on existing space, which will reduce the backlog and improve FCI of aging buildings. Decreasing campus enrollment can offer opportunities to manage and optimize space utilization through renovations, repurposing and/or divestment. This strategy will also decrease total capital need and allow limited capital investment to be more targeted.

UAA has seen continual cuts to their operating expenditures. This has correlated with decreases in FTE's, with staff becoming responsible for more gross square footage to maintain. UAA should actively fill staffing vacancies in order to provide service to aging buildings, as well as PM their younger recently built environment.







University of Alaska Anchorage: Community Campus Breakout

FY21 Facilities Benchmarking & Analysis





Space Profile: Kenai Peninsula College



Kenai Technical Complexity



Kenai has similar Tech complexity throughout analysis



Institutions arranged by Technical Complexity



Density Decreases at Kenai campus in 2021



Since 2015 on campus density has decreased due to fewer students and faculty FTE's



*Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE

Institutions arranged by Density Factor

Qualifying Metrics – Building and Grounds Intensity

Kenai has a higher building intensity and lower grounds intensity than database



New Construction Keeps Kenai Campus Young









Capital Profile: Kenai Peninsula College



Capital Investment has focused on New Construction UAA

Kenai should begin shifting investment to existing space



Total Capital Investment



Defining an Annual Investment Target



Annual Funding Target: \$2.1M

FY21 Annual Investment Target

Replacement Value: \$131.2M



Capital Investment vs. Annual Investment Target



Kenai has fallen short of the investment target since 2017

Total Capital Investment vs. Funding Target



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Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Annual Stewardship has Diminished in Recent Years

If current trend continues deferred maintenance at Kenai will increase



Total Capital Investment as a Percent of Funding Target



Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Asset Reinvestment Need has Increased since 2016

KPC benefits from new construction, and until 2016, consistent capital investment







Facilities Condition Index

Condition based investment strategy



FCI = Replacement Value

Campus leadership can use FCI categories for different buildings and portfolios, helping to balance capital investments across campus and prioritize project selection

Facilities Condition Index – All Buildings



Average FCI of buildings at KPC is less than .01





Operations Success: Kenai Peninsula College



Facilities Operating Expenditures



Kenai \$/GSF spending in 2021 is nearly 3.5X less than previous highs

Facilities Operating Actuals



Budget Cuts Limit Purchasing Power



KPC has a budget shortfall of \$7.3 per GSF compared to 2010





PM Grows, Still Below Recommended Spending Range

KPC should continue to prioritize PM spending with good condition buildings





Utility Operating Expenditures



Expenditures remain steady in recent years

Peer Utility \$ per GSF





Total Energy Consumption



Overall reduction in energy consumption from previous highs, but increases in recent years Total Energy Consumption



Energy Expenses are Increasing Over Time



There was a minimal decrease in total energy costs after 2019



Total Energy Cost



Differences in Unit Costs are Growing



Fossil costs have decreased, while electric unit cost have begun to increase.



Fossil Fuel Unit Cost

Electric Unit Cost





Maintenance Staffing Coverage



Increases in FTE led to a decrease in coverage rates similar to 2018





Custodial Staffing Coverage



Custodial coverage ratios at Kenai far exceed sustainable levels


Grounds Staffing Coverage



Coverage increases as the department reduces in size







Space Profile: Kodiak College



Kodiak Technical Complexity





Institutions arranged by Technical Complexity



Decreasing Enrollment Brings Density Down

Since 2015 we have seen enrollment decrease at Kodiak College



*Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE

Institutions arranged by Density Factor

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Qualifying Metrics – Building and Grounds Intensity

Kodiak has fewer buildings per acre, and smaller buildings than database



Grounds Intensity



All Space at Kodiak is in High-Risk Categories



Kodiak age profile carries high risk of building failure and program displacement





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Capital Profile: Kodiak College



Total Capital Investment at Kodiak



Kodiak should look to increase investment into existing space to reset building age



Total Capital Investment



Defining an Annual Investment Target



Annual Funding Target: \$400K



81

FY21 Annual Investment Target

Replacement Value: \$28.7M

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Capital Investment vs. Annual Targets



Since 2015 Kodiak has seen overall capital investment decrease

Total Capital Investment vs. Funding Target



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Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Kodiak Spends over Target Levels on Average



While historic spending is strong, recent years are below target

350% Capital Spending % of Total Target 300% 250% Target 200% 150% 100% 50% 0% 2008 2009 2010 2011 2012 2016 2027 2006 2007 2013 2014 2015 2018 2019 2020 2021 Annual Stewardship Asset Reinvestment ----Average

Total Capital Investment as a Percent of Funding Target



Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

83

Total Need at Kodiak Rises in Recent Years



Total AR need will continue to rise unless recent investment patterns change

Total Asset Reinvestment Need \$/GSF





Facilities Condition Index

Condition based investment strategy



FCI = Replacement Value

Campus leadership can use FCI categories for different buildings and portfolios, helping to balance capital investments across campus and prioritize project selection

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Facilities Condition Index – All buildings



Despite decreases in investment backlog at Kodiak remains minimal





Operations Success: Kodiak College



Kodiak Facilities Operating Expenditure



Kodiak operating budget levels off in recent years

Facilities Operating Actuals



Budget has Kept Pace with Inflation at Kodiak



Kodiak should continue to spend at appropriate levels to sustain building demands

Facilities Operating Actuals



Large PM Investment from 2012 - 2015



After seeing capital spending decrease Kodiak should return to historic PM levels





Utility Operating Expenditures

Utility spending per GSF has decreased



Utility \$ per GSF





Total Energy Consumption



Consumption at Kodiak has increased in each of the past 3 years



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Total Energy Costs Decreased in 2021



Energy costs remain steadier at Kodiak than other UAA campuses



Total Energy Cost



Differences in Unit Costs



Fossil costs fluctuate while electric unit costs are less sporadic. Both decreased in 2021



Electric Unit Cost



Maintenance Staffing Coverage



Small FTE changes create large swings in coverage ratios



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Custodial Staffing Coverage



Custodial staffing ratios have receded to managable levels in recent years



Custodial Coverage



Grounds Staffing Coverage

UAA

New staffing additions reduce coverage ratio







Space Profile: Mat-Su College



Mat-Su Technical Complexity Remains Consistent



Institutions arranged by Technical Complexity



1.96 2.07 2.18 2.29 2.40 2.52 2.63 2.74 2.85 2.96 3.07 3.19 3.30 3.41 3.52

Decreasing Density at Mat-Su College

UAA



*Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE

Institutions arranged by Density Factor



Qualifying Metrics – Building and Grounds Intensity

Mat-Su has smaller buildings, and fewer buildings per acre than database



Majority of Space in High-Risk Categories



More space over 25 years of age will require more capital and operational resources







Capital Profile: Mat-Su College



Total Capital Investment at Mat-Su



Mat-Su should shift capital spending focus to existing space



Total Capital Investment



Defining an Annual Investment Target



Annual Funding Target: \$1.6M



FY21 Annual Investment Target

Replacement Value: \$98M



Capital Investment vs. Annual Targets



Mat-Su campus consistently falls short of investment targets

Total Capital Investment vs. Funding Target



Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Spending to Target at Mat-Su Campus

Fund 1 Projects: Annual Stewardship

Funds 2-9 Projects : Asset Reinvestment



Mat-Su has reached 47% of its target investment over the past 15 years

Total Capital Investment as a Percent of Funding Target



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Total Need at Mat-Su Grows at Rapid Pace



Lack of investment at Mat-Su has correlated with an increase in AR need

Total Asset Reinvestment Need \$/GSF




Facilities Condition Index

Condition based investment strategy



FCI = Replacement Value

Campus leadership can use FCI categories for different buildings and portfolios, helping to balance capital investments across campus and prioritize project selection

Facilities Condition Index – All Buildings



Buildings average FCI remains below .01, despite missing capital targets FCI by Building





Operations Success: Mat-Su College



Mat-Su Facilities Operating Expenditures



Facility operating actuals have decreased since 2017

Facilities Operating Actuals



Budget Cuts Limit Purchasing Power



Mat-Su operating spend should be 7 dollars higher to keep up with rate of inflation



Facilities Operating Actuals



Mat-Su spends Less than Recommend PM Levels

UAA

Mat-Su should increase PM spending to manage an aging campus



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Utility Operating Expenditures



Mat-Su utility operating expenses remain level

Utility \$ per GSF





Total Energy Consumption



Since 2017 Mat-Su has had relatively consistent energy consumption Total Energy Consumption



Energy Expenses are Increasing Over Time



However, Mat-Su has seen energy costs decrease since 2018 peak



Mat-Su Energy Rate Costs by Type



Fossil unit costs decreased, while electricity stayed steady







Maintenance Staffing Coverage



Campus GSF increases while staff FTE decreases





Custodial Staffing Coverage



Custodial staff at Mat-Su clean 5X more space than the Gordian database average



Grounds Staffing Coverage



Reductions in staffing in 2021 increase grounds coverage ratios







Space Profile: Prince William Sound Community College



PWSCC Tech Rating Above Database Average



Tech rating has remained consistent at PWSCC



Institutions arranged by Technical Complexity



Decreasing Enrollment Brings PWSCC Density Down

Decreases in enrollment have been less drastic compared to other campus's



*Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE

Institutions arranged by Density Factor

Qualifying Metrics – Building and Grounds Intensity

PWSCC has fewer, smaller buildings making up the campus profile



PWSCC Risk Reduced Through Renovations

PWSCC should begin planning to renovate remaining older spaces









Capital Profile: Prince William Sound Community College



PWSCC Has Focused Capital Into Existing Space



Investment has declined after large projects were completed between 2010-2014





Defining an Annual Investment Target



Annual Funding Target: \$766K



FY21 Annual Investment Target



Capital Investment



In recent years PWSCC has deferred more to the total backlog of need



Total Capital Investment vs. Funding Target



Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Annual Stewardship has Diminished in Recent Years

PWSCC's target hasn't been met since FY14

Total Capital Investment as a Percent of Funding Target



G RDIAN[®] Fund 1 Pr Funds 2-9

Fund 1 Projects: Annual Stewardship Funds 2-9 Projects : Asset Reinvestment

Total Need Drops Significantly After FY12



Needs addressed during large capital projects, but need has begun to rise



Total Asset Reinvestment Need \$/GSF



Facilities Condition Index

Condition based investment strategy



FCI = Backlog Replacement Value

Campus leadership can use FCI categories for different buildings and portfolios, helping to balance capital investments across campus and prioritize project selection

Facilities Condition Index – All Buildings



Average FCl is .06





Operations Success: Prince William Sound Community College



Facilities Operating Expenditures



PWSC has significantly reduced its Daily Service expenditures in recent years



Facilities Operating Actuals



Budget Cuts Limit Purchasing Power



Purchasing powering at PWSC is 50% of 2010 budget accounting for inflation

\$14 \$12.26 \$12 \$10 . . \$8 \$/GSF \$6 \$4 \$2 \$0 2018 2010 2011 2012 2013 2014 2015 2016 2019 2020 2021 2017 Daily Service - · · Inflation PM

Facilities Operating Actuals



PM Spending Over Time

UAA

PM spending decreased due to decreases in service contracts





Utility Operating Expenditures



Utility costs dropped by approximately 50% since FY13





Total Energy Consumption



PWSCC fossil efficiency aided in total consumption dropping by 48% since FY06



Total Energy Consumption



High Energy Expenses



PWSCC electricity unit costs drives total energy costs over time

\$120 \$100 \$83.55 \$/MMBTU \$80 \$60 \$40 \$20 \$0 2016 2015 2006 2008 2009 2011 2012 2013 2014 2027 2018 2019 2020 2007 2021 2010 Electric — Average Fossil

Total Energy Cost



Fluctuating Energy Cost by Source



Electric unit cost at peak since FY12/13







Electric Unit Cost

Maintenance Staffing Coverage



Coverage ratios are increasing over time, but well below database average



Custodial Staffing Coverage



PWSCC had no dedicated custodial staff in FY20, 21



Custodial Coverage


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 Building knowledge

Questions & Discussion