

Healthcare Facilities Management

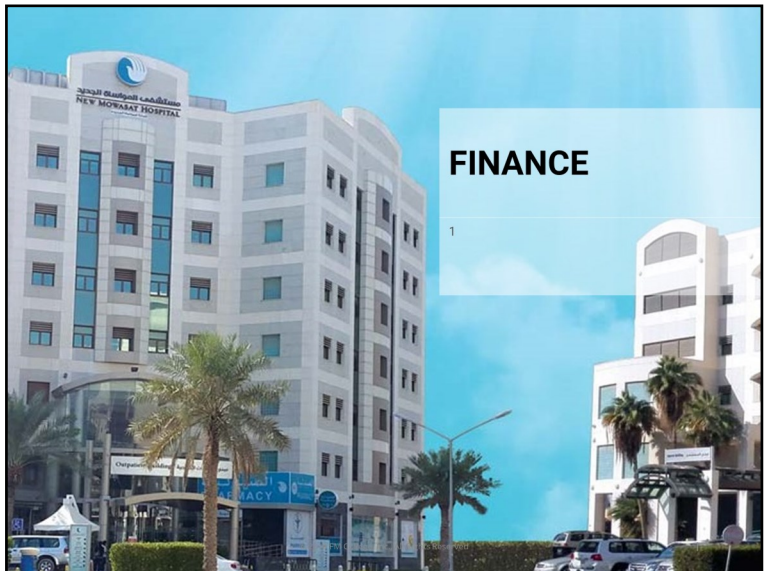
Module 4: Finance

Student Workbook



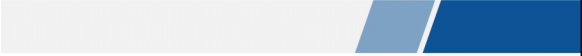
Lesson 14 ~ Finance 1







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Foundations

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Introduction to Cost Management

Goals of an accounting system:

- Create accurate and timely tools to guide operating requirements—financial controls that guide the actions and resources of an organization.
- Ensure that financial data and economic transactions are entered correctly into the records.
- Ensure that all management financial documents and reports are accurate and prepared in a timely manner.
- Ensure that financial statements are relevant and reliable and fairly and accurately represent the activities of the organization.
- Support future business planning through the provision of accurate records of past revenues and costs.

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Introduction to Cost Management

Financial Accounting

- Provides data for external users.
- Provides objective and verifiable financial information; emphasis on precision.
- Must follow externally imposed rules.
- Reflects aggregate, summarized data for the entire organization.
- Provides a historical orientation.

Management Accounting

- Provides data for internal users.
- Includes financial and nonfinancial information and, sometimes, subjective information; emphasis is on relevance and timeliness.
- Not bound by mandatory rules.
- Reflects parts of an organization as well as the whole organization.
- Emphasizes providing information about future events.

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Chart of Accounts

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Standard Chart of Accounts

Numbering	Category	Purpose
1000 – 1999	Assets	Physical, financial or intangible resources that retain value for a period of time after purchase
2000 – 2999	Liabilities	Debts incurred that are expected to result in future negative cash flows; can also include an assessment of net risk items
3000 – 3999	Equity	An organization’s financial worth; Assets – Liabilities = Net assets
4000 – 4999	Income or Revenue	Cash or properties received in exchange for goods or services or from investments; an organization’s income sources
5000 – 5999	Job Costs/Cost of Goods Sold	Costs specific to product or job
6000 – 6999	Overhead Costs or Expenses	General costs of operations (not specific to product or service)
7000 – 7999	Other Income	Income outside of normal business
8000 – 8999	Other Expense	Expense outside your normal business

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Double Entry

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Accounting: Double Entry System

The double entry system of accounting or bookkeeping means that every business transaction will involve two accounts (or more).

For example, when a company borrows money from its bank, the company's Cash account will increase and its liability account Loans Payable will increase.

If a company pays \$200 for an advertisement, its Cash account will decrease and its account Advertising Expense will increase.

Double entry also allows for the **accounting equation**

(assets = liabilities + owner's equity)

A third aspect of double entry is that the amounts entered into the general ledger accounts as debits must be equal to the amounts entered as credits.

(debits = credits)

Type	Account	Debit	Credit
Asset	Cash	\$200	
Liability	Loans		\$200

Type	Account	Debit	Credit
Asset	Cash		\$200
Expen.	Adv'g	\$200	

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Balance Sheet

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Accounting: Balance Sheet

The balance sheet is one of the three fundamental financial statements and is key to both financial modeling and accounting.

- The balance sheet displays the company's total assets, and how these assets are financed, through either debt or equity.
- It can also sometimes be referred to as a statement of net worth, or a statement of financial position.
- The balance sheet is based on the fundamental equation:
Assets = Liabilities + Equity.

AMAZON.COM, INC.
 CONSOLIDATED BALANCE SHEETS
 (in millions, except per share data)

	December 31,	
	2016	2017
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 19,334	\$ 20,522
Marketable securities	6,647	10,464
Inventories	1,461	16,047
Accounts receivable, net and other	8,339	13,164
Total current assets	45,781	60,197
Property and equipment, net	29,114	48,866
Goodwill	3,784	13,350
Other assets	4,723	8,807
Total assets	\$ 83,402	\$ 131,310
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 25,309	\$ 34,616
Accrued expenses and other	13,739	18,130
Unearned revenue	4,768	5,097
Total current liabilities	43,816	57,843
Long-term debt	7,694	24,743
Other long-term liabilities	12,607	20,975
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, \$0.01 par value:		
Authorized shares — 500		
Issued and outstanding shares — none		
Common stock, \$0.01 par value:		
Authorized shares — 5,000		
Issued shares — 500 and 507		
Outstanding shares — 477 and 484	5	5
Treasury stock, at cost	(1,837)	(1,837)
Additional paid-in capital	17,186	21,389
Accumulated other comprehensive loss	(985)	(484)
Retained earnings	4,916	8,636
Total stockholders' equity	19,285	27,709
Total liabilities and stockholders' equity	\$ 83,402	\$ 131,310

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AMAZON.COM, INC.
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Income Statement

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Accounting: Income Statement

The Income Statement is one of a company's core financial statements that shows their profit and loss over a period of time.

- The profit or loss is determined by taking all revenues and subtracting all expenses from both operating and non-operating activities.
- The statement displays the company's revenue, costs, gross profit, selling and administrative expenses, other expenses and income, taxes paid, and net profit, in a coherent and logical manner.

AMALION.COM, INC. CONSOLIDATED STATEMENTS OF OPERATIONS (in millions, except per share data)			
Year Ended December 31,			
	2017	2016	2015
Net product sales	\$ 79,268	\$ 84,685	\$ 114,571
Net service sales	27,738	49,322	59,293
Total net sales	107,006	133,997	173,864
Operating expenses:			
Cost of sales	71,651	88,265	111,934
Fulfillment	13,410	17,619	25,249
Manufacturing	5,234	7,233	10,009
Technology and content	12,540	16,683	22,420
General and administrative	1,747	2,432	3,674
Other operating expense, net	173	567	751
Total operating expenses	104,773	133,809	175,760
Operating income	2,233	4,188	4,106
Interest income	50	100	202
Interest expense	(459)	(484)	(545)
Other income (expense), net	(256)	86	346
Total non-operating income (expense)	(665)	(274)	(197)
Income before income taxes	1,568	3,912	3,909
Provision for income taxes	(910)	(1,421)	(1,709)
Equity method investment activity, net of tax	(22)	(99)	(6)
Net income	\$ 636	\$ 2,392	\$ 1,833
Basic earnings per share	\$ 7.29	\$ 1.11	\$ 6.31
Diluted earnings per share	\$ 7.25	\$ 4.90	\$ 6.11
Weighted-average shares used in computation of earnings per share:			
Basic	87	874	489
Diluted	87	884	493

See accompanying notes to consolidated financial statements.

(larger image on next slide)

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AMAZON.COM, INC.			
CONSOLIDATED STATEMENTS OF OPERATIONS			
(in millions, except per share data)			
	Year Ended December 31,		
	2015	2016	2017
Net product sales	\$ 79,268	\$ 94,665	\$ 118,573
Net service sales	27,738	41,322	59,293
Total net sales	107,006	135,987	177,866
Operating expenses:			
Cost of sales	71,651	88,265	111,934
Fulfillment	13,410	17,619	25,249
Marketing	5,254	7,233	10,069
Technology and content	12,540	16,085	22,620
General and administrative	1,747	2,432	3,674
Other operating expense, net	171	167	214
Total operating expenses	104,773	131,801	173,760
Operating income	2,233	4,186	4,106
Interest income	50	100	202
Interest expense	(459)	(484)	(848)
Other income (expense), net	(256)	90	346
Total non-operating income (expense)	(665)	(294)	(300)
Income before income taxes	1,568	3,892	3,806
Provision for income taxes	(950)	(1,425)	(769)
Equity-method investment activity, net of tax	(22)	(96)	(4)
Net income	\$ 596	\$ 2,371	\$ 3,033
Basic earnings per share	\$ 1.28	\$ 5.01	\$ 6.32
Diluted earnings per share	\$ 1.25	\$ 4.90	\$ 6.15
Weighted-average shares used in computation of earnings per share:			
Basic	467	474	480
Diluted	477	484	493

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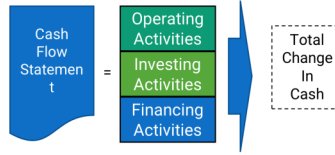
Cash Flow Statement

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Accounting: Cash Flow Statement

A Cash Flow Statement (also called the Statement of Cash Flows) shows how much cash is generated and used during a given time period.


- It is one of the main financial statements analysts use in building a three statement model.
- The main categories found in a cash flow statement are:
 - operating activities,
 - investing activities, and
 - financing activities of a company and are organized respectively.
- The total cash provided from or used by each of the three activities is summed to arrive at the total change in cash for the period, which is then added to the opening cash balance to arrive at the cash flow statement's bottom line, the closing cash balance.



(See sample on next slide)

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AMAZON.COM, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (in millions)			
	Year Ended December 31,		
	2015	2016	2017
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	\$ 14,557	\$ 15,890	\$ 19,334
OPERATING ACTIVITIES:			
Net income	596	2,371	3,033
Adjustments to reconcile net income to net cash from operating activities:			
Depreciation of property and equipment, including internal-use software and website development, and other amortization, including capitalized content costs	6,281	8,116	11,478
Stock-based compensation	2,119	2,975	4,215
Other operating expense, net	155	160	202
Other expense (income), net	250	(20)	(292)
Deferred income taxes	81	(246)	(29)
Changes in operating assets and liabilities:			
Inventories	(2,187)	(1,426)	(3,583)
Accounts receivable, net and other	(1,755)	(3,367)	(4,786)
Accounts payable	4,294	5,030	7,175
Accrued expenses and other	913	1,724	283
Unearned revenue	1,292	1,955	738
Net cash provided by (used in) operating activities	12,039	17,272	18,434
INVESTING ACTIVITIES:			
Purchases of property and equipment, including internal-use software and website development	(5,387)	(7,804)	(11,955)
Proceeds from property and equipment incentives	798	1,067	1,897
Acquisitions, net of cash acquired, and other	(795)	(116)	(13,972)
Sales and maturities of marketable securities	3,025	4,733	9,988
Purchases of marketable securities	(4,091)	(7,756)	(13,777)
Net cash provided by (used in) investing activities	(6,450)	(9,876)	(27,819)
FINANCING ACTIVITIES:			
Proceeds from long-term debt and other	353	621	16,231
Repayments of long-term debt and other	(1,652)	(354)	(1,372)
Principal repayments of capital lease obligations	(2,462)	(3,860)	(4,799)
Principal repayments of finance lease obligations	(121)	(147)	(200)
Net cash provided by (used in) financing activities	(3,882)	(3,740)	9,860
Foreign currency effect on cash and cash equivalents	(374)	(212)	713
Net increase (decrease) in cash and cash equivalents	1,333	3,444	1,188
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 15,890	\$ 19,334	\$ 20,522
SUPPLEMENTAL CASH FLOW INFORMATION:			
Cash paid for interest on long-term debt	\$ 325	\$ 290	\$ 328
Cash paid for interest on capital and finance lease obligations	153	206	319
Cash paid for income taxes, net of refunds	273	412	957



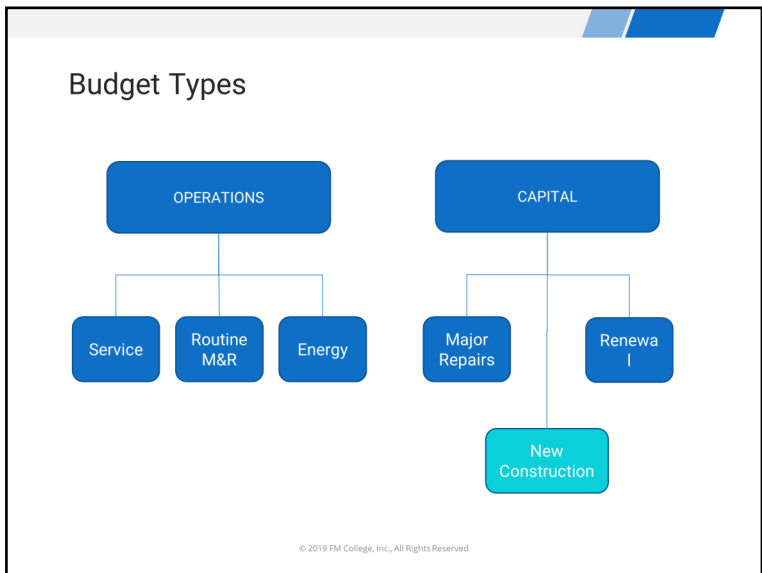
MODULE 05-B
BUDGETS

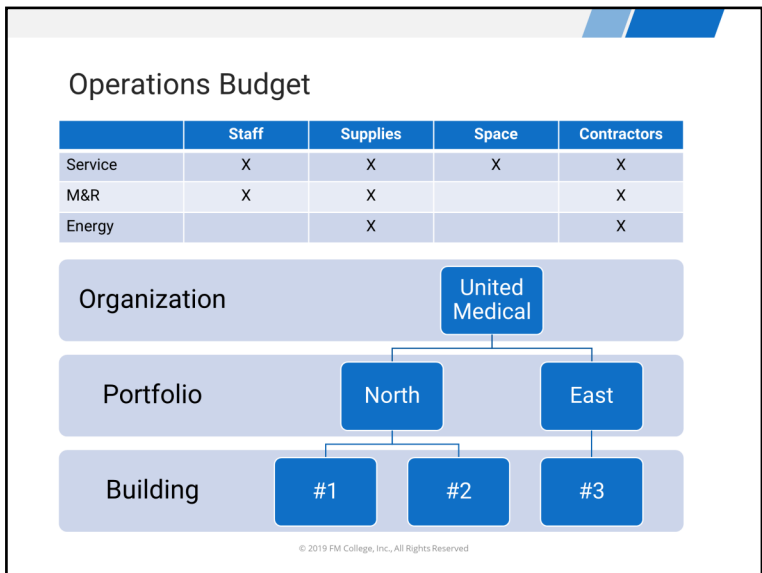
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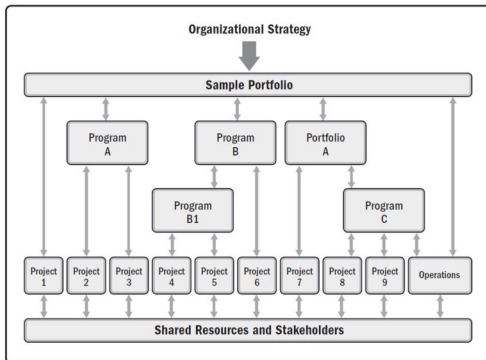
Budget Types

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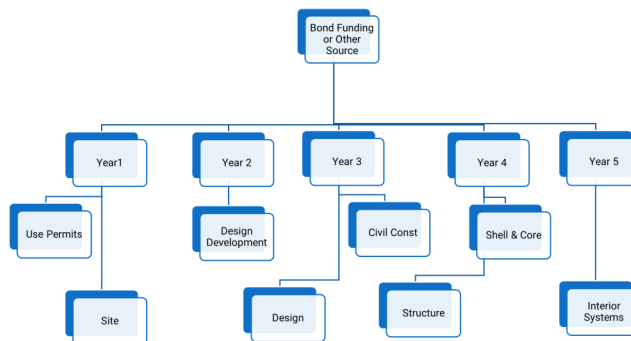
Capital Budget



Source: PMBOK 6th Edition

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New/Major Construction



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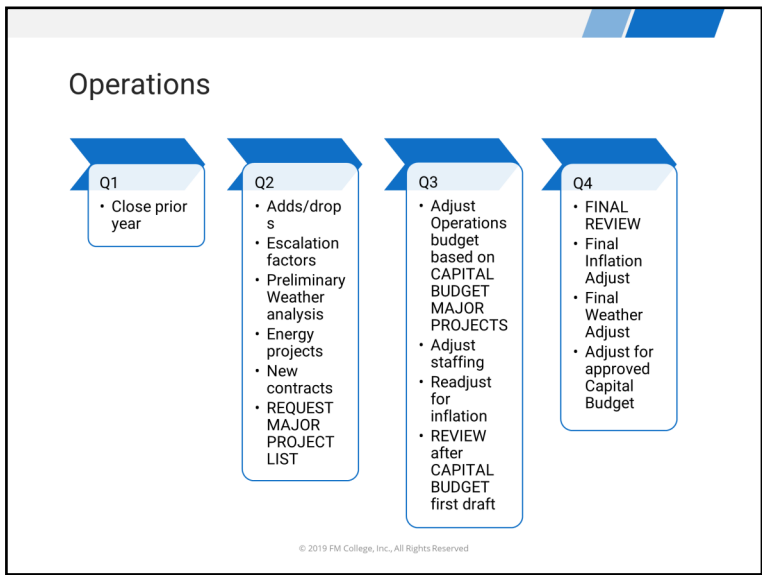
Development

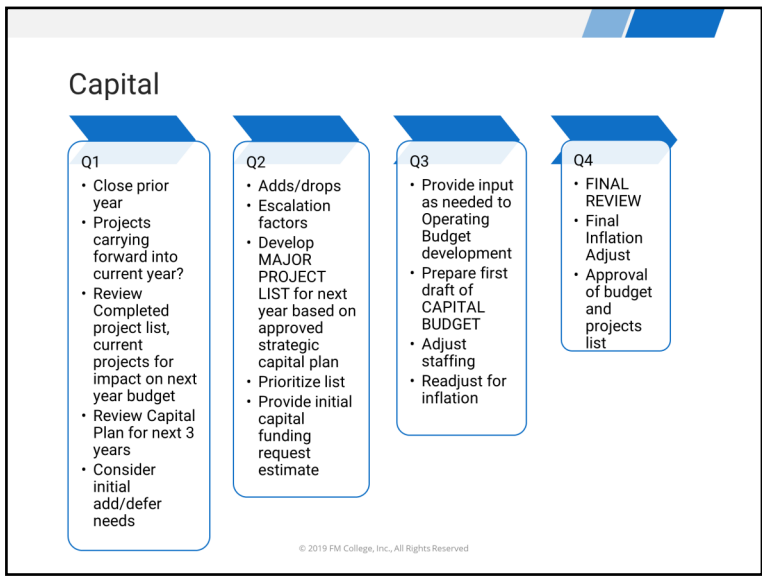
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Developing A Budget

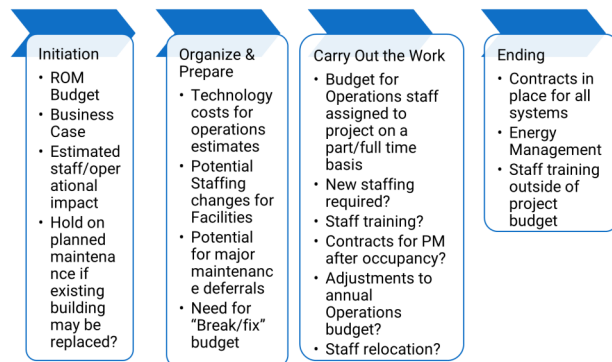
- Process for next year's budget usually starts at beginning 2nd Quarter
 - Operating Budget
 - Capital Budget
- Draft Operating Budget (based on steady state?) developed by end of 2nd quarter.
- Draft Capital Budget developed by early 3rd quarter.
 - Approvals needed to finalize
- Operating budget should then be adjusted to consider Capital impacts, and updated for any late price increases
- Budgets finalized and approved by mid 4th Quarter.

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New/Major Construction

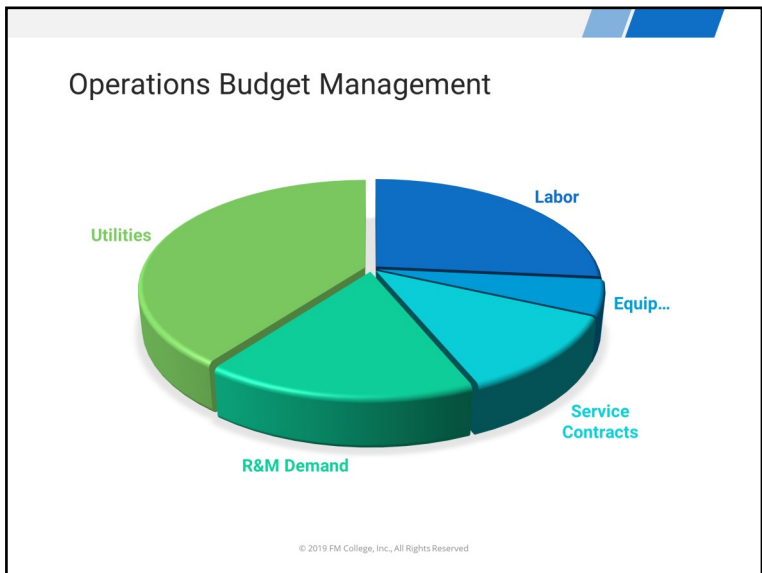


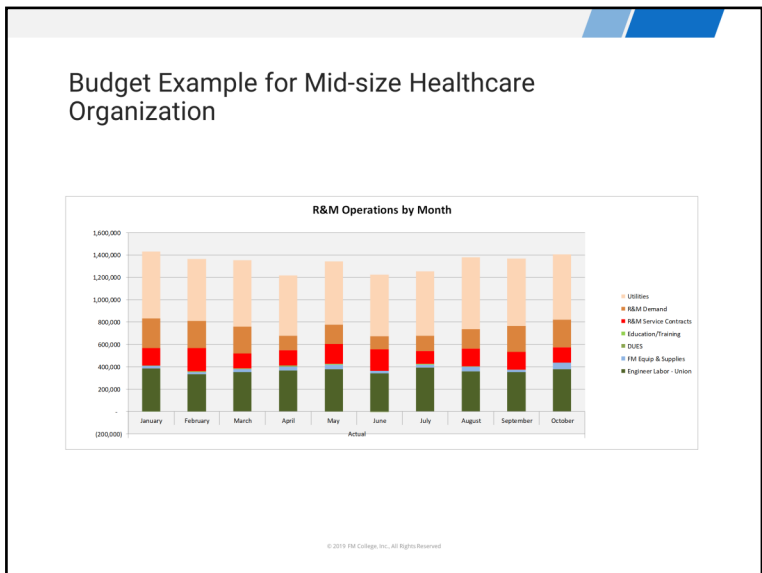
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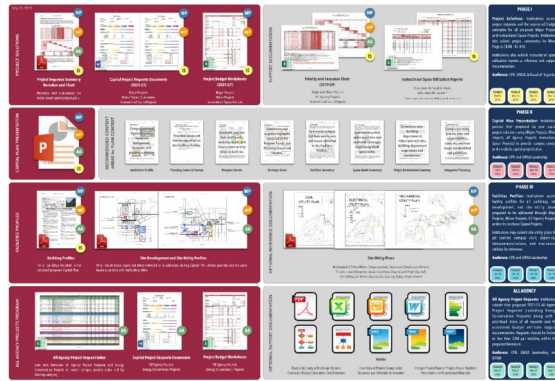
Management

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Capital Budget Management



Source: University of Wisconsin System

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Capital Budget Management

Executive Summary

Tacoma Specialty Center – Operating Rooms – Night-time Set-back

The Operating Rooms at Tacoma Specialty Center require in excess of 20 air changes per hour during use hours. Currently there are on average 8 hours per day, or more, when they are not in use. The operating controls, as now installed, do not allow us to vary from this level of ventilation when the space is unoccupied at night. If we were to install additional controls we could retro-fit to approximately 8 air changes per hour when these rooms are unoccupied. This would achieve significant energy savings, with no negative impacts on operation or safety. Further the controls and monitoring installed would allow improved management of air balance and humidity within these spaces during all operations modes.

Program Benefits

- Reduced energy consumption of at least 61,000 KWH per year. (This is fan energy savings alone. There are other heating/cooling savings that are difficult to accurately estimate at this time.) This would mean savings of at least \$6,100 per year.
- Improved airflow management and monitoring.
- Improved humidity management and monitoring.
- Improved indication of a safe operating environment during space use.
- Rebates/incentives from Tacoma Power estimates at \$14,500 payable to GHC.

Total Cost:
 Siemens Controls \$24,730 plus tax
 Prime Electric \$ 6,333 plus tax
Total Cost \$31,063 plus tax
 Tacoma Power (\$14,500)
Net Cost to GHC \$16,563 plus tax

Total Benefit: Based on Engineer's estimate from the Brix Group, Inc.

	Rate	KWh or MMBtu	Period	2015 Savings Estimate
Fan Energy	\$0.10/KWh	61,000	Year	\$6,100
Cooling Energy	\$0.10/KWh	26,000 (est.)	Year	\$2,600
Heating Energy (humidity control)	\$0.10/MMBtu	987 (est.)	Year	\$1,000
Total Savings per year				\$9,700

Future Year Operational Savings (est.) \$45,000 (5 Year Estimate)

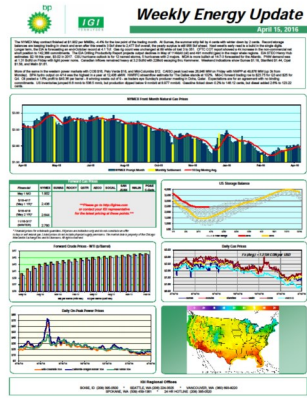
Funding Source: Request Change-Order for TSC DDC Upgrade Project of \$25,000 (balance from project contingency)

Financial Analysis: 1 Year Return on Investment 54%
 (Simple payback is estimated for GHC as 1.8 Years)

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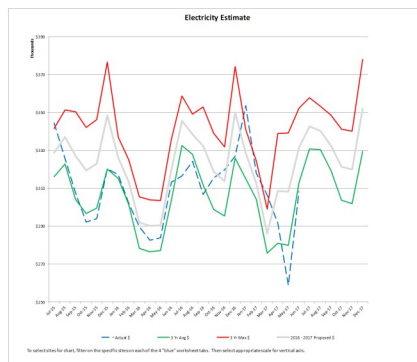
Monitor energy purchases

Source
Price
Availability



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Energy Budgeting



Will discuss how this is developed later today.

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Variance

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Operations Budget Variance

Budget Variance (Actuals vs Budget)

- Annual review in first 2 months of year (Final Analysis)
- At end of each quarter variance is determined item by item
 - Variance (+/-) over X% requires an explanation.
 - Items not expended in one quarter may be pushed to the next due to timing issues, etc.
 - 1st & 2nd Quarter variances may be used to adjust 3rd & 4th Quarter budgets based on actual trends, etc.

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Operations Budget Variance

- Maintenance project delays (contracted work)
- Employee Position vacancies
- Overtime
 - Some may be scheduled for after-hours coverage
 - Staffing shortages
 - Urgent repairs
- Extreme weather (i.e. snow removal costs had to predict and budget)
- Utility impacts from long-term weather patterns
- Vendor performance issues

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Capital

- Construction contract issues
- Significant changes to design
- Scope creep
- Delays (access, permitting, staffing, etc.)
- Labor/material costs
- Availability due to project competition

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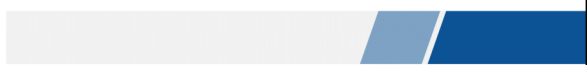


MODULE 04-P

OPERATIONS BUDGET MANAGEMENT

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1



Staffing Needs

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FTE Calculation

How many FTE's required to cover 1 operations position from 7 AM to 6 PM, 5 days/week for one year?
 Assume 24 days per year per FTE for holidays and paid time off

		hours/day	days/year	days off/year	hours/year	FTE
7:00 AM	6:00 PM =	11	260		2860	1.515
Employee work day =		8	260	-24	1888	

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Justification for Additional Position

Currently an employee is working 55 hours per week to cover required work. What is this cost in terms of an FTE? Assume 24 days/year holidays and paid time off. Overtime is equal to 1.5 times regular rate of pay.

		hours/day	days/year	days off/year	hours/year	FTE
straight time		8	260	-24	1888	
overtime		4.5	260		1170	0.620
	55-40=15	15/5=3	3*1.5=4.5			

A contractor charges \$150/hour for electrical work
 We can hire an electrician as an employee for \$50/hr.
 Assume 24 days per year per FTE for holidays and paid time off?
 What is their break even point for hiring the electrician in contractor hours?

	Hours	Wage	Total
FTE Cost/year	1888	\$ 50.00	\$94,400.00
Contractor Hours/year	629.3	\$ 150.00	

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2

Supply Needs

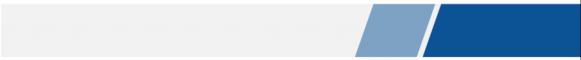
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Supplies Needed

- Scheduled Maintenance Supplies require only a minimum stock. Supplies can be ordered when tasks are scheduled.
- Emergency Repair Parts are a critical stock item for all high-risk equipment. Also emergency repair tools.
- Stocking levels should be based on equipment criticality, redundancy, and availability lead time.
- Spares and tools should be included in CMMS (i.e. stores inventory)

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Space Needs

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Space – FM areas

- Office areas
- Work shops
- Warehouse
- Vehicles/parking
- Emergency supplies storage
- Medical Gases
- Fuel Storage

On new construction projects it is critical that adequate FM spaces are provided. IT infrastructure is also critical for these spaces.

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Space Terminology

➤ Assignable Square Feet

- A term used to describe areas that may be occupied and is acceptable for a designated purpose or function. It does not include walls, stairways, corridors, restrooms, parking facilities or mechanical space.

➤ Area/Gross Square Footage (GSF)

- A unit of measure representing the cumulative total of an organization's building(s) inclusive of all floors to the outside faces of exterior walls. Defined as the sum of the floor areas on all levels of a building that are totally enclosed within the building.

➤ Building Core and Service Area

- Defined as the floor area of a facility, which is necessary for the operation of the facility and is not available for general occupancy.

Source: Asset Lifecycle Model for Total Cost of Ownership Management
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Space Terminology

➤ Common Support Areas

- Facility assignable area includes the area devoted to common support services. Common support area is the portion of the facility usable area not attributed to any one occupant but provides support for several or all occupant groups.

➤ Facility Assignable Area

- Calculated by measuring the portions of the floor used to house personnel, furniture, support areas and common support areas.

➤ Facility Interior Gross Area

- Defined as the building exterior minus the thickness of the exterior walls.

➤ Facility Rentable Area

- Calculated by subtracting major vertical penetrations, interior parking space and void areas from facility interior gross area.

Source: Asset Lifecycle Model for Total Cost of Ownership Management
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Space Terminology

- Facility Usable Area
 - Calculated by subtracting the primary circulation and the building core and service areas from the facility rentable area. It is area that can be assigned to occupant groups.
- Primary Circulation
 - Defined as the portion of a building that is a public corridor or lobby.
- Secondary Circulation
 - Defined as the portion of a building or floor required for access to some subdivision of space that is not defined as primary circulation.

Source: Asset Lifecycle Model for Total Cost of Ownership Management
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Outside Contractor Needs

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Contracted Services

- Straight time or overtime? Could work be done on shift differential?
- Travel time
- Truck charges
- Markup on parts, materials and equipment
- Wait time (if meeting your staff or security)
- Coordination with other contractors
- Documentation (paper on site & electronic to office?)
- Warranty on work
- Liability for damages/injury

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Contracted Repairs

As on previous slide, plus:

- Guaranteed response time
- Emergency call response

Who are your back-up contractor/vendors if primary is unavailable (emergencies, disasters, etc.)?

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THANK YOU

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