

JEA Performance Excellence Project

August 21, 2017

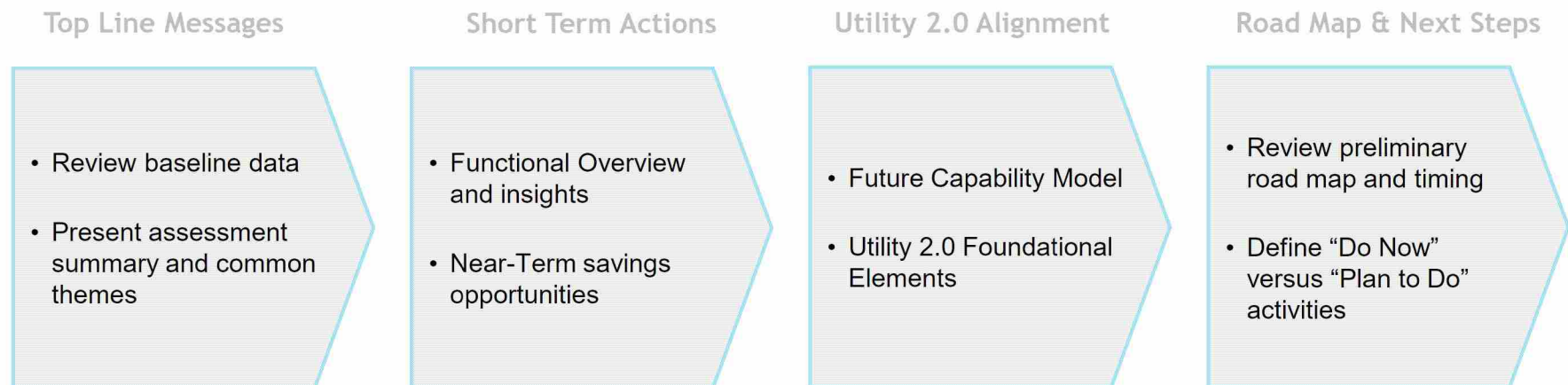
Table of Contents

Executive Summary	3
Governance and Operating Model	36
Electric Distribution	47
Electric Delivery	64
Water/ Wastewater Delivery and Collection	73
Water/ Wastewater Treatment	84
Customer Experience	94
Supply Chain	101
Technology	122
Finance	175
Human Resources	188
Other Corporate Services	197

Goals for the Meeting

- 1 Discuss the enterprise assessment and top line messages focusing on:
 - Near-term savings potential
 - Long-term Utility 2.0 operating model and capability opportunities
- 2 Review proposed roadmap forward

Sequence for the meeting



JEA initiated the Business Excellence initiative to achieve two objectives:

1. Identify near term savings and improvements across the enterprise
2. Lay the foundation for the future (Utility 2.0)

We have identified 53 initiatives worth between **\$48M** and **\$108M** in potential savings for JEA that can be realized in the next **6-26¹** months in three waves

- Baseline savings are \$48M with a stretch target of \$108M
- 17% of the baseline opportunity is achievable in the first 6 months, and 50% by month 12 if earnestly pursued
- Wave 1 includes initiatives with a near-term savings impact, they are concentrated in supply chain, employing process automations as well as by enforcing overtime and inventory levels across electric and W/WW

Waves 2 and 3 include significant opportunities to unlock the stretch targets by repositioning the business for the future, or Utility 2.0; there are four key themes to describe these opportunities:

- **Hardened Strategic Management Capability** - implement a stronger strategic management model and processes (e.g. strategy, capital allocation, etc.) while improving accountabilities (wave 2)
- **Technology Rationalization and Digital Roadmap** - develop a clear enterprise technology strategy, data architecture and roadmap that aligns with corporate and functional strategy (wave 2)
- **Accountable and Future Oriented Organization Model** - align JEA's organization and governance to build a robust EAM capability with a focus on linear asset in order to drive operational performance at all levels (wave 3)
- **Portfolio and Capital Realignment and Reallocation** - increasingly leverage emerging long and distributed supply market by divesting of assets early and redeploying capital as needed to continue to reduce debt and/ or fund modernization (wave 3)

JEA's decision to pursue this assessment when the business is performing well means that preparations for the next industry cycle, which is coming, can be made by JEA versus waiting until the options available are limited and/ or selected for JEA

¹ Assumes projects start on or about 10/1 and run from 3/2018-12/2019

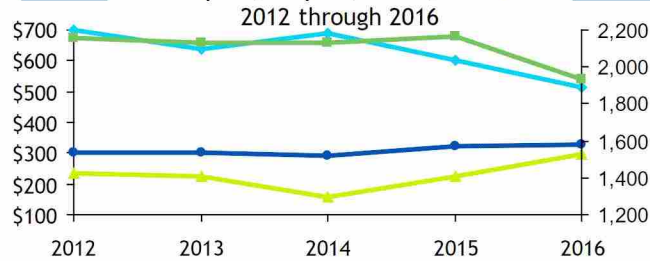
Key Decisions to Consider During Workshop

In addition to tactical cost savings opportunities, there are larger issues that the SLT will need to address in order to unlock maximum cost savings and/ or position JEA for the future

- 1) How does, and should, Technology set the pace for unlocking savings opportunities and preparing JEA for the future?
- 2) How does the organization assess the need to, prepare for, and manage the transition of talent to, or acquisition from, 3rd party resources?
- 3) What are the needs of the W/WW business as it prepares for a new CUP?
- 4) What are the price points for specific distributed energy resources that would require a concerted capital shift in the electric business?

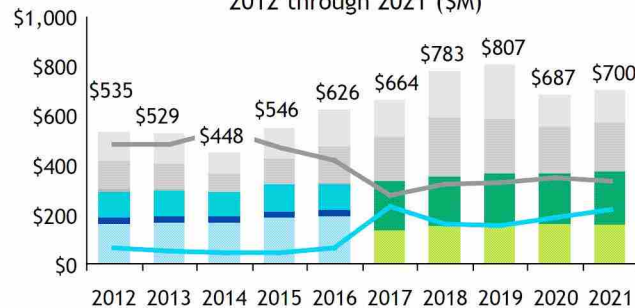
Baseline-Addressable Spend

JEA OpEx, CapEx, Fuel, and FTE



1. Fuel and Purchased Power includes rate stabilization transfer - fuel and non-fuel purchased power
 2. Electric FTE detail for 2016 excludes 201 FTEs from SJRPP. Chief Executive Officer headcount includes 6 executive assistants
- Source: JEA historical and forecast financials, Deloitte Analysis

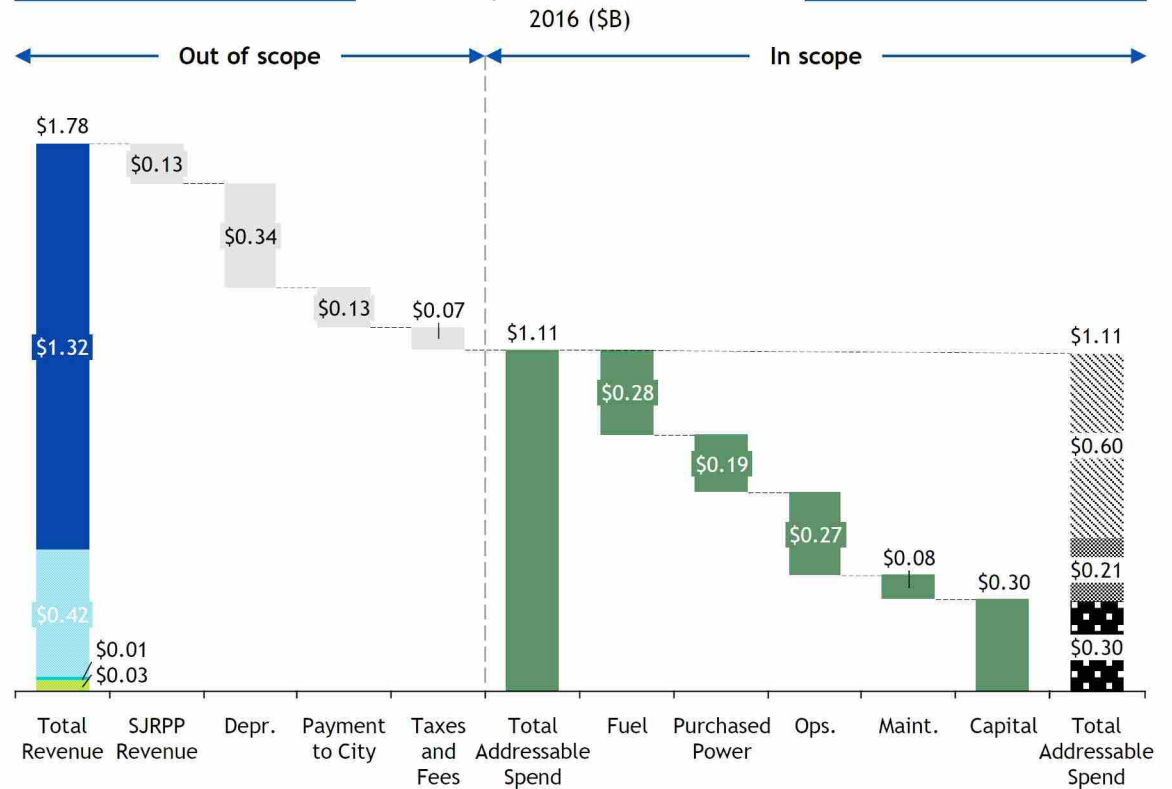
JEA Expense History & Forecast



- Legend:
- CapEx - Electric
 - CapEx - Water
 - Other
 - Services
 - Materials
 - Labor
 - O&M - Electric
 - O&M - Water
 - Fuel
 - PP
1. Other includes: intercompany charges, insurances, wastewater treatment purchase, purchased water, contracts and contingencies, and water billing credits

Source: JEA historical and forecast financials, Deloitte Analysis

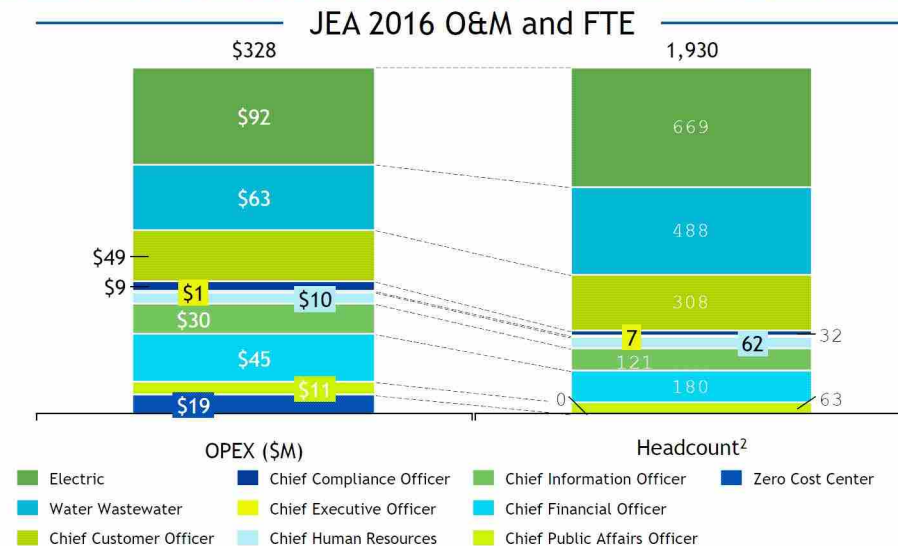
JEA Composition of Cash Flows



Discussion

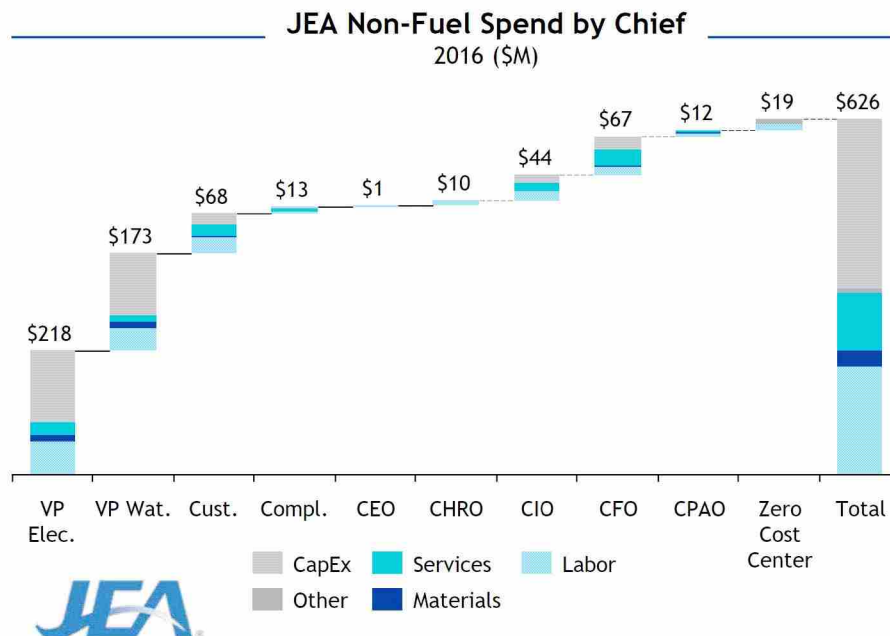
- O&M has remained steady since 2014 while the FTE count has declined by ~250 FTEs
- Payments to suppliers is the largest subcategory of addressable spend, followed by capital
- Since 2014, CAPEX spend has nearly tripled while fuels spend has decreased by ~25% during the same period

Baseline - Functional Segmentation



Discussion

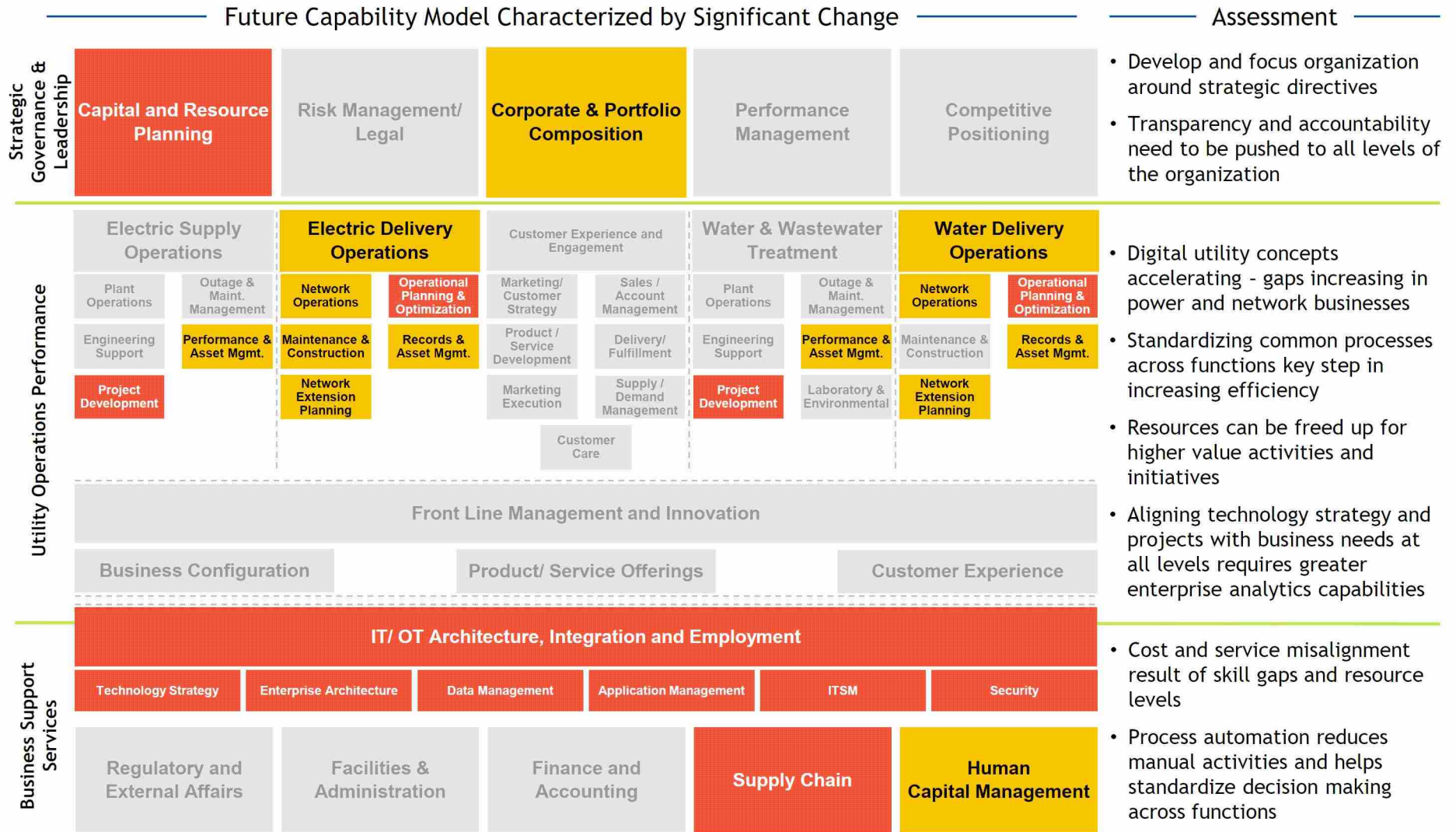
- Electric and water/ waste water (W/WW) have the largest spend, with capital (CapEx) being the largest spend category for both
- Capital dollars are allocated for projects, not for strategic priorities
- Within operations and maintenance spending (O&M), labor is the largest cost
- Managers are not responsible for managing labor costs specifically within their departments, resulting in hiring for people rather than position and hiring full-time positions versus contractors
- Zero cost center impacts organization because \$19M is not allocated directly to business - for example, fuel costs are allocated to zero cost center rather than to electric



1. Other includes: intercompany charges, insurances, wastewater treatment purchase, purchased water, contracts and contingencies, and water billing credits
Source: JEA historical and forecast financials, Deloitte Analysis

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Situational Assessment - Gaps to the Future

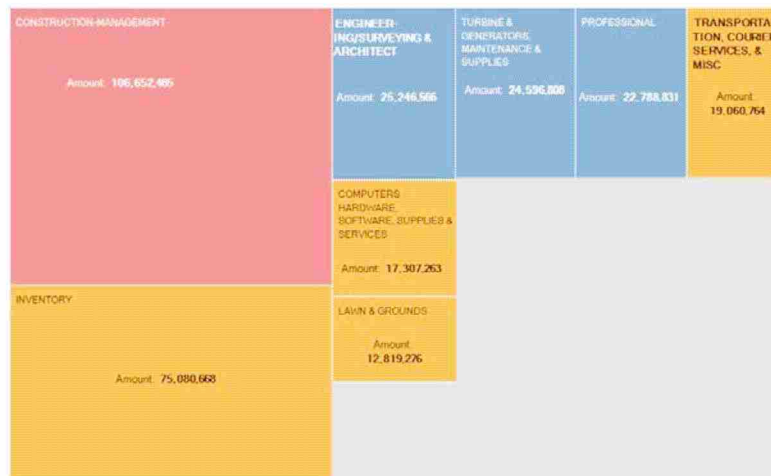


JEA's Capability/Performance Gap Against the Future

Limited and/ or static
 Moderate
 Significant and/ or increasing

Supply Chain - Findings and Insights

Top 2016 Spend Categories



Key Findings and Insights

- The organization has 128 spend categories, with 60% of spend focused in eight categories
- Construction and engineering and architecture categories account for ~26% of spend
- Senior buyers to focus on reactive tasks and keeping up with immediate needs
- Inventory buyers focus on cost reduction at the piece level
- Supply chain is responsible for the inventory dollars, but does not have input to what goes in or comes out of inventory
- There are more dollars in slow/non-moving inventory (class E) than all other categories of inventory combined

Buyer Purchasing Category Assignment

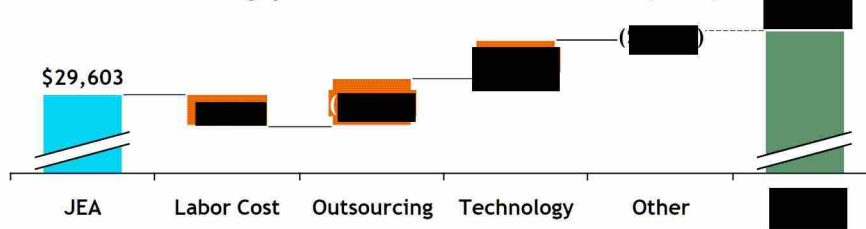
Sr. Buyer	Number of Categories	
	Assigned	FY2016 Spend
Rosenberry, Ron	20	139,447,568
Lovgren, Rodney	66	94,639,950
Woyak, Nathan	13	66,426,693
Dambrose, Nick	29	50,997,404
Grand Total	128	351,511,615

Inventory Breakdown by ABCD Classification

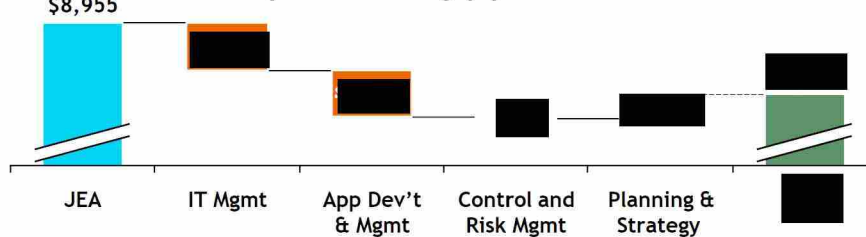
On-Hand Inventory Dollars (4/28/2017 In \$MM)				
Inventory Classification	Classification Description	Northside		Total Dollars
		Generating Station	Commonwealth Service Center	
Class A	>\$15K Issues	\$4.52	\$13.12	\$17.64
Class B	\$2-15K Issues	0.96	1.65	2.62
Class C	\$500-2K Issues	0.23	0.49	0.72
Class D	\$100-500 Issues	0.09	0.16	0.24
Class E	\$.01-100 Issues	12.87	11.11	23.98
Grand Total		18.73	26.53	45.26

Technology - Findings and Insights

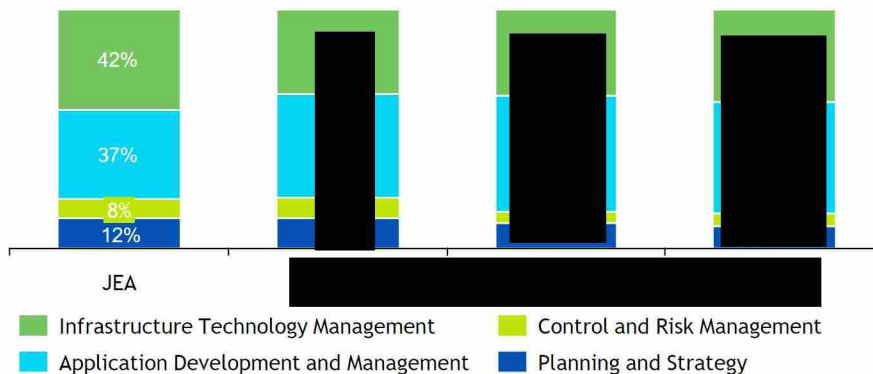
IT cost gap normalized to JEA revenue (000s)³



IT process cost³ gap per end user

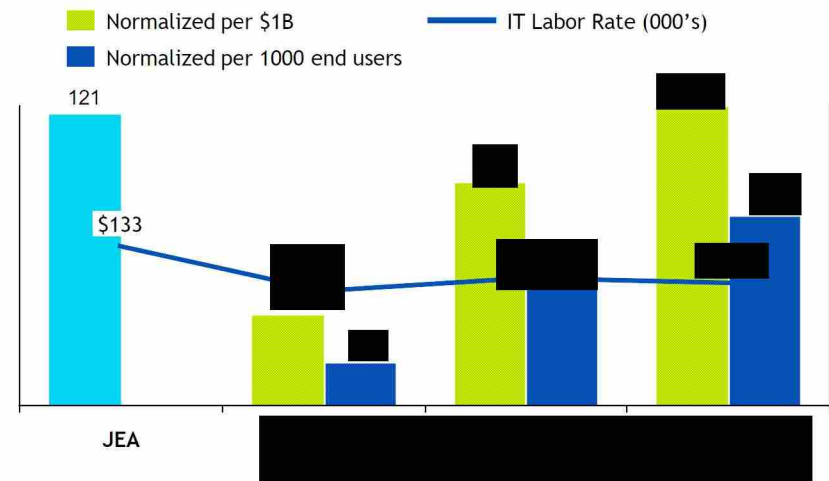


IT staff distribution across capabilities



Suggested IT staff size

(Based on staff per \$1B in revenue and staff per 1,000 end users)



Key Findings and Insights

- Based on total end users, the IT staff size is greater than the [redacted]
- The labor rate is higher than the competitive average
- Staff allocation is weighted away from application development and management, but still has a more expensive process cost than the median
- Panning and strategy costs are underfunded

1. "IT" is based on the function performed and includes all cost centers that roll up to the Chief Information Officer.

2. Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.7B to illustrate comparisons

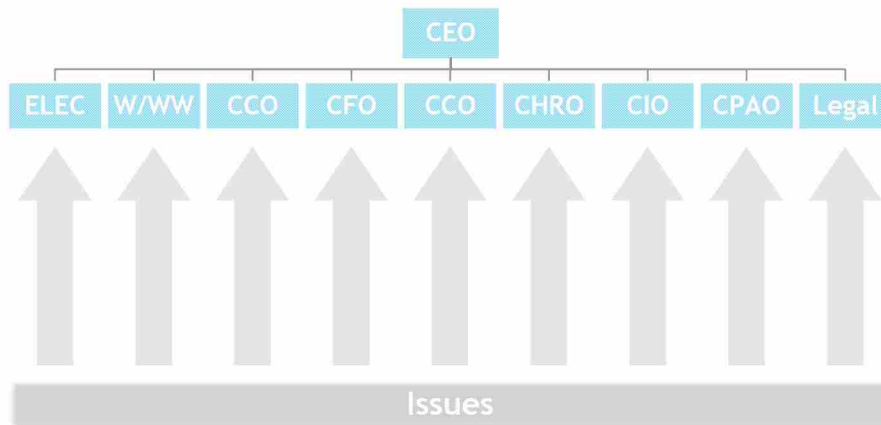
3. Process cost includes all labor and outsourcing costs - Labor includes all salaries and wages, benefits and incentives; outsourcing includes professional services

4. Low cost performer is based on the peer set in the first quartile of total human resources cost as a % of revenue, high cost performer is the 3rd quartile of cost as a % of revenue

Source: JEA data, Deloitte Global Benchmarking Center, JEA Employee Records. and Deloitte Analysis

Organization and Governance - Findings and Insights

Operating Model Design Promotes Active Management



Impact of Utility 2.0

Enhanced
Operating
Efficiency

System and customer demands are not being offset by equal or greater growth in demand

Accelerating
Decision
Cycles

Shorter asset lives, advancing regulations and technology breakthroughs increasing need for agility

Granular
Business
Intelligence

Shorter asset lives, advancing regulations and technology breakthroughs increasing need for agility

Current Culture

Common Statements Heard During Interviews and Meetings

"This is how we have always done it"

"We tried that about 25 years ago and it didn't work"

"I only trust it if I do it"



Key Findings and Insights

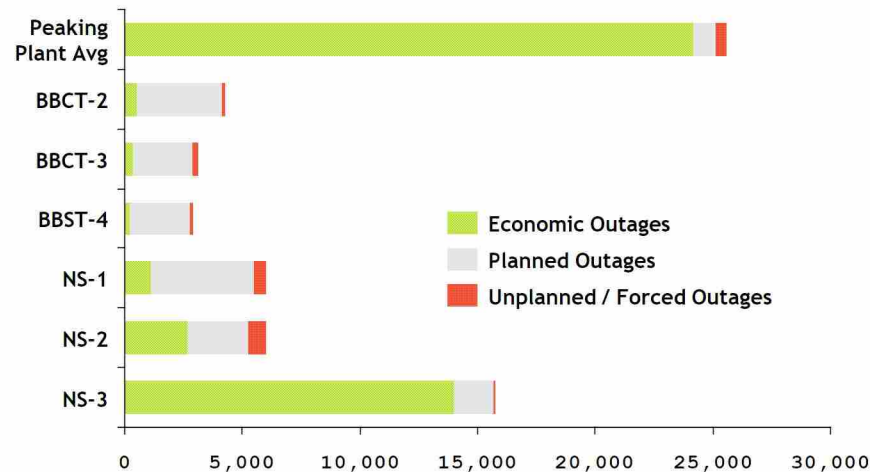
- The current operating model promotes active management by the SLT
- JEA employs a one year planning horizon
- The current culture is anchored on experience and seniority - often referred to as tribal knowledge
- Accountability is inconsistent throughout levels of the organization and across functions
- The level of engagement between the core businesses, electric and W/WW, and corporate services, like supply chain, is limited creating tension between the two

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Energy Supply - Findings and Insights

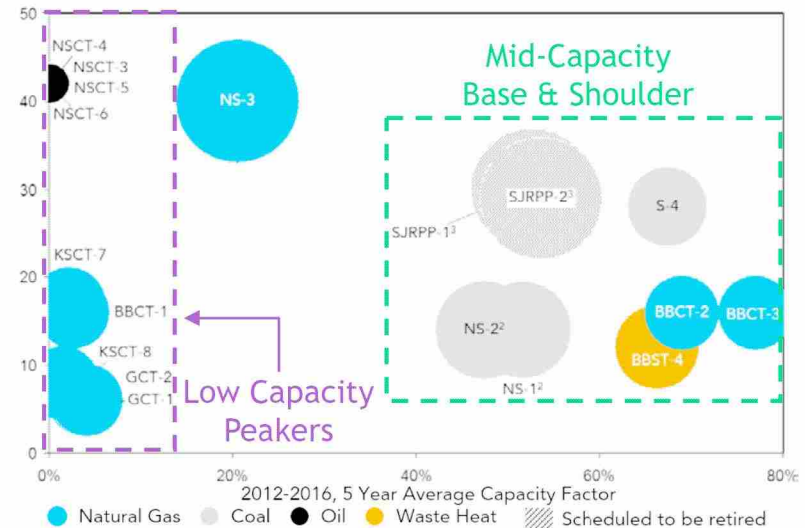
Rationalization of JEA Generation Fleet

Outage Hours at Power Plants Units 2014 through 2016



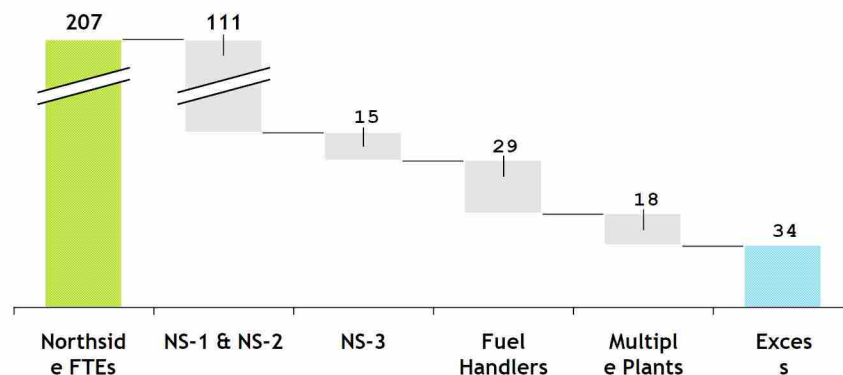
Rationalization of JEA Generation Fleet

JEA Power Plant Units



Reduce Service Levels in Areas that are Overstaffed

Resource Allocation at Northside Generating Station



Note: See subsequent slides for detailed explanation of graphics

Source: JEA Power Plant Unit Outage Data, JEA Overtime Data, SNL, Deloitte Analysis



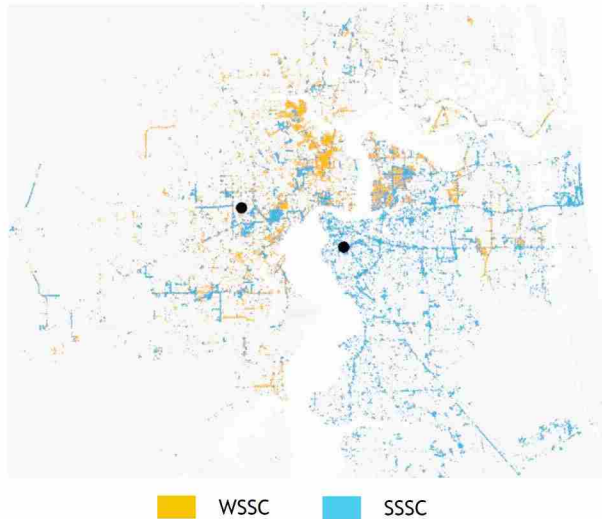
Key Findings and Insights

- JEA has high levels of economic outages, while Florida has excess generating capacity
- The current fleet is organized into low-capacity peakers and mid-capacity shoulder units
- Staffing at NGS is misaligned compare to industry peers
- JEA does not have a single person responsible for managing the relationship with and performance of TEA

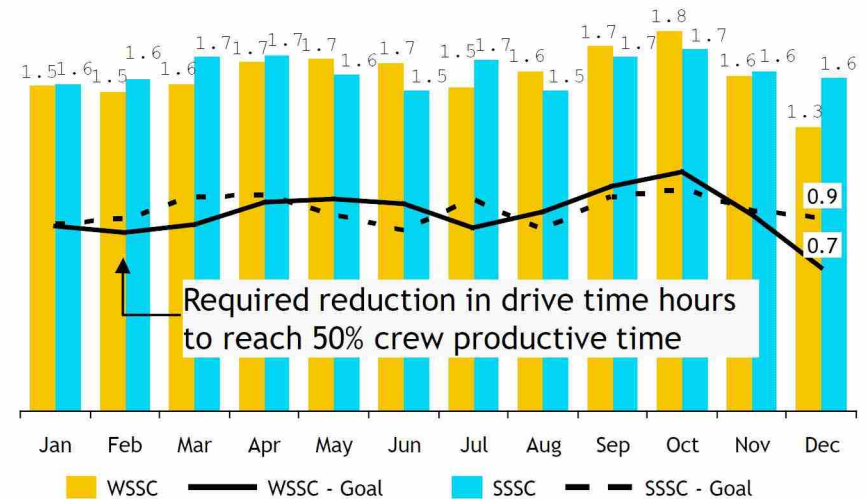
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Energy Delivery- Findings and Insights

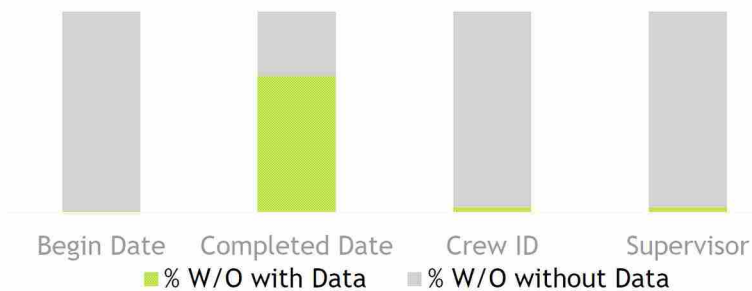
Improve Service Center Footprint & Dispatch Linemaintainers at SSSC and WSSC Overlapping Territory



Improve Service Center Footprint & Dispatch Drive Time Estimates (Hours), Non-Emergent



Perform EAM & WMS Audit Work Order Data for Overhead & Underground Groups Maximo & FMS Data: 10/1/2015 to 6/23/2017



Note: See subsequent slides for detailed explanation of graphics
Source: JEA Start/Stop GPS Data, JEA Work Order Data, Deloitte Analysis

Key Findings and Insights

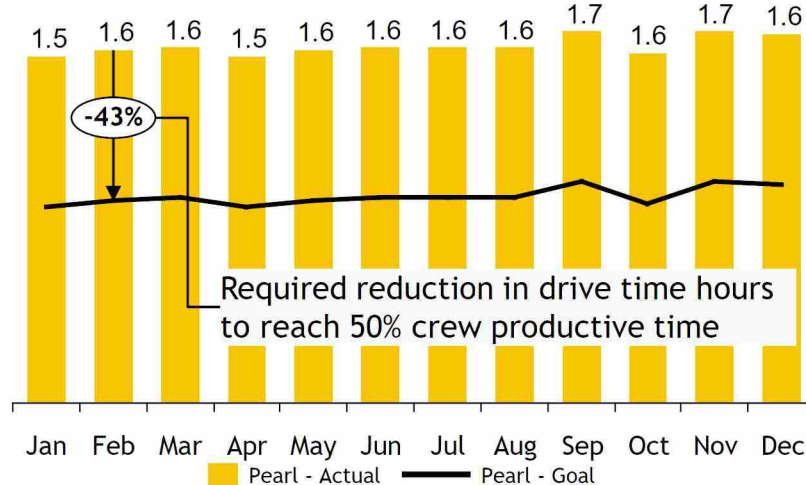
- Line maintainers at Westside and Southside service centers work within each other's service center territories increasing total drive time and reducing crew productivity
- Population growth at the edge of JEA's service territory is resulting in more demand on service centers and increased drive times for crews
- There are gaps in EAM and WMS data entry and performance reporting

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Water Delivery & Wastewater Collection - Findings and Insights

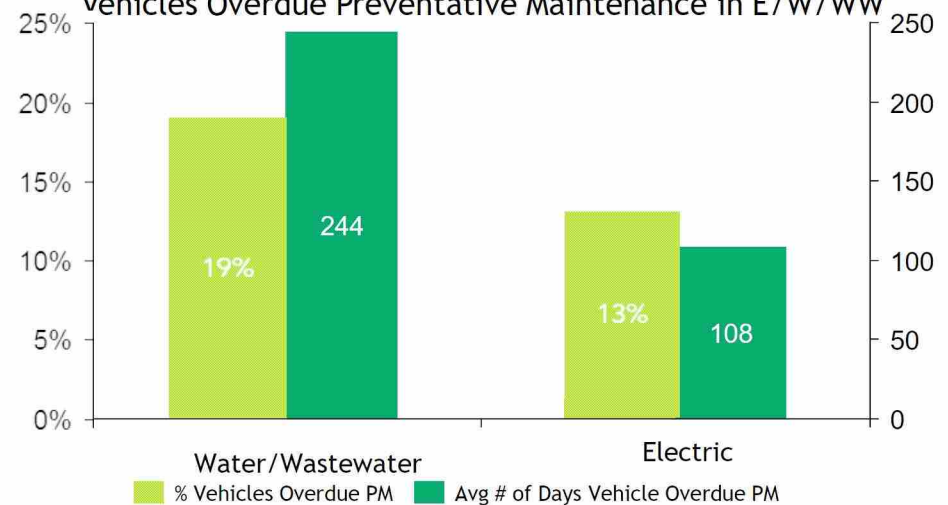
Improve Service Center Footprint & Dispatch

Drive Time Estimates for PSSC (Hours), Non-Emergent



Improve Planning for Vehicle Maintenance and Fleet Expansion

Vehicles Overdue Preventative Maintenance in E/W/WW



Perform EAM & WMS Audit

Completeness of Asset and Operational Performance Data

Asset Data	Completeness
Location	
Age	
Type	
Operational Performance Data	Completeness
Time to complete work order	
Work order crew #	
Aggregated data reporting	

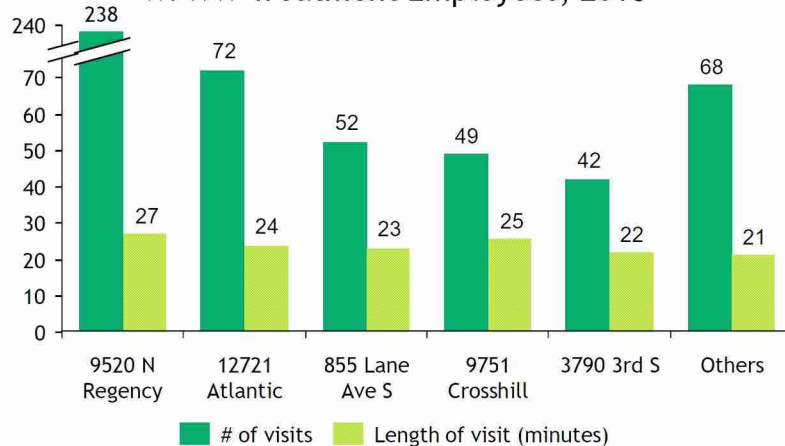
Key Findings and Insights

- PSSC maintenance crews have less than 50% productive time, much of which is attributed to drive time
- There are gaps in EAM and WMS data entry and performance reporting
- W/WW has experienced increased demand on crews, which has increased pressure to keep vehicles available by delaying routine maintenance

Water & Wastewater Treatment - Findings and Insights

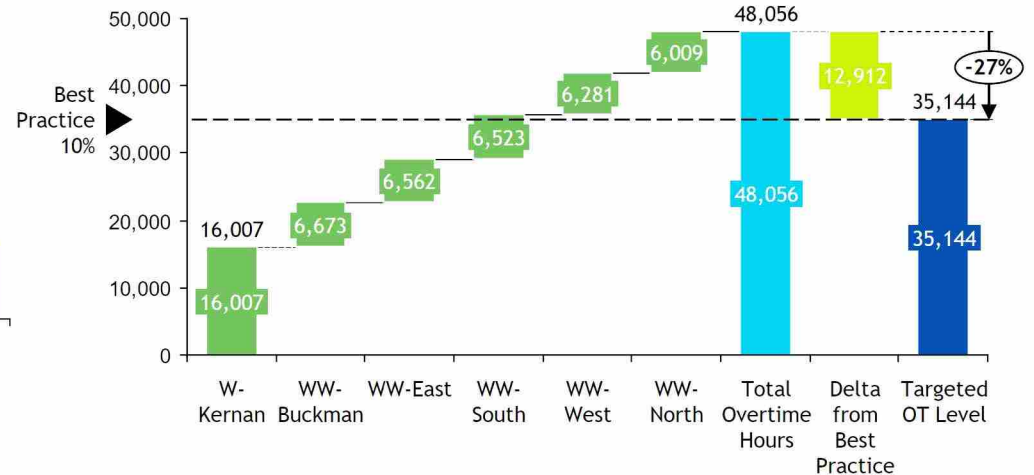
Shift Material Acquisition Away From P-Card

Number and Length of Visits to Local Home Depots
W/WW Treatment Employees, 2016



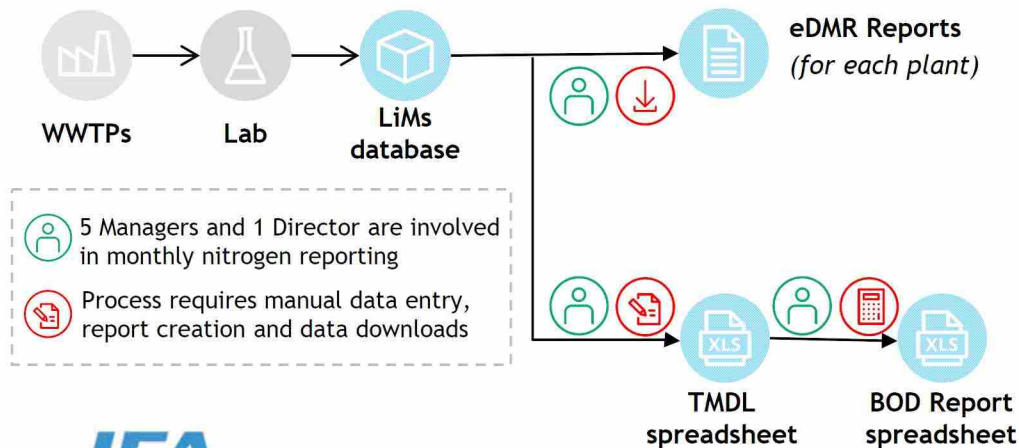
Manage Overtime Hours to Industry Best Practices

Excess Planned Overtime Hours for W/WW Plants



Automate Operational Data Reporting

Example Process: Monthly Nitrogen Reporting



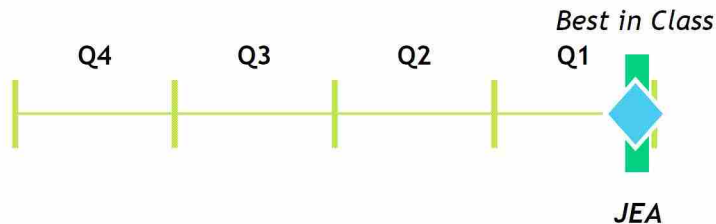
Key Findings and Insights

- Material procurement relies heavily on p-card purchases, resulting in:
 - Excess unproductive time
 - Unrealized bulk discounts
 - Reduced quality control (e.g. construction standards)
- Non-emergent overtime hours exceed the industry best practices of 10% of normal hours
- Operational data reporting is time and labor intensive due to manually-intensive and duplicative processes

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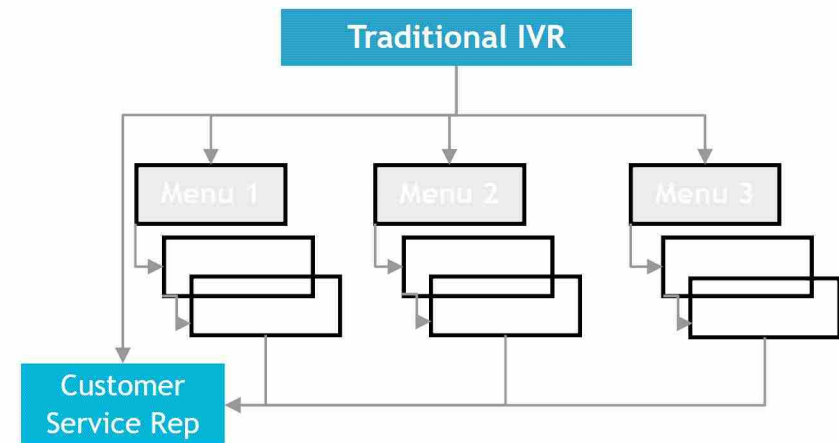
Customer Operations - Findings and Insights

O&M Expense Per Call Cost per Call and O&M Cost per Customer

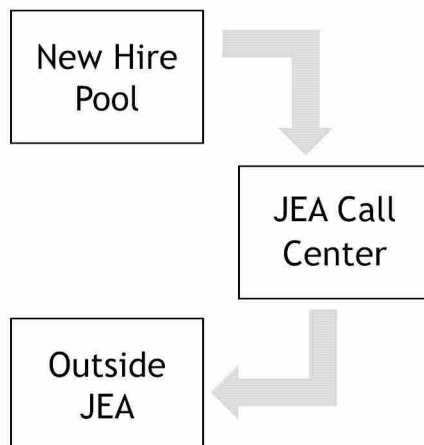


- Peer group includes 20 other Deloitte utility client customer service date
- JEA's O&M per call and O&M per customer are leading

Current Call Process for Customers Leverages IVR to Limit Number of CSR Calls



Call Center Insourcing Hiring Process

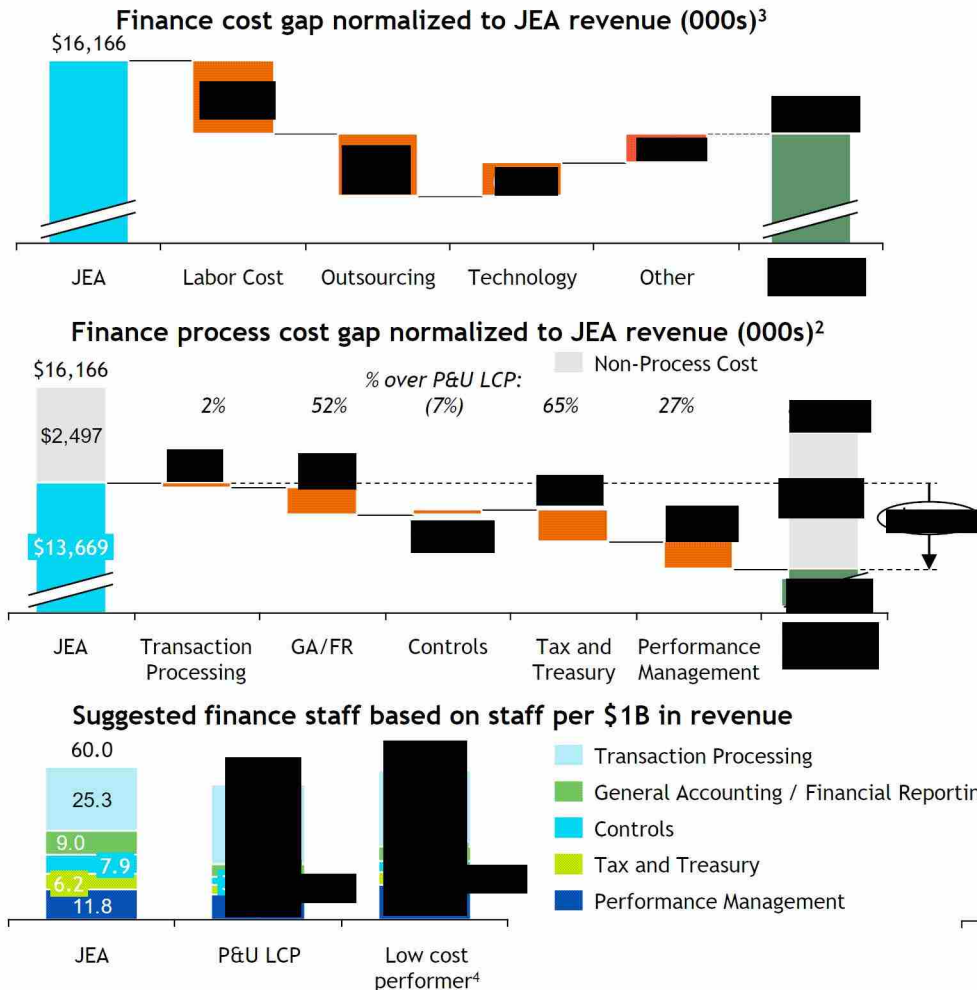


- Employee turnover is ~85-100% turnover annually
- Assumption is that call center employees leave for better paying positions
- Organization in constant state of training due to turnover

Key Findings and Insights

- In addition to J.D. Power rankings improvement, JEA's customer operations metrics are leading
- Increasing use of scripts, CC&B for C&I and other tools like project outreach continues to decrease CSR call volumes - which remains a primary goal for the organization
- Circuitous and manual processes like deposits, receivables, and permitting have many handoffs and manually intensive
- Value of greater analytics is high to help determine how to reduce the cost for notification for payment

Finance¹ Benchmark Analysis - Findings and Insights



Key Findings and Insights

- Finance¹ has 107 staff, and associated labor costs of \$11.4M (77% of total finance cost)
- Total Finance cost gap is driven by high Labor and Outsourcing costs, which are offset by underweights to Technology and Other
- Finance process costs are higher than the [redacted] in each process other than controls (which makes up 9% of spend)
- Process cost gap is partially driven by staff size, which is 13% greater than the [redacted]
- JEA has good span of control, but has 0.8 fewer staff to managers than the [redacted]
- Finance labor rates are 8% below the [redacted]
- Modest overstaffing but resources are skewed toward manual processes

1. "Finance" is based on the function performed and not organizational structure, includes: Corp. Accounting, Corp. Finance, Tax, Internal Audit, Reporting & Budgeting, Bus. Dev., Gen. Accounting, Investments & Analysis, Property & Construction, and Cash Management
2. Process cost includes all labor and outsourcing costs - Labor includes all salaries and wages, benefits and incentives; outsourcing includes professional services
3. Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.7B to illustrate comparisons
4. Low cost performer is based on the peer set in the first quartile of total finance cost as a % of revenue

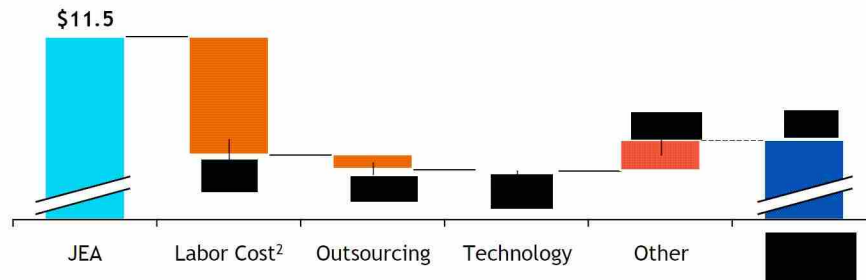


Note: Technology cost (\$1.3M) is calculated as allocation of IT costs proportional to finance's share of overall O&M spend and has been added to finance cost of \$14.8M; Other is calculated as the remainder of finance cost after labor and outsourcing

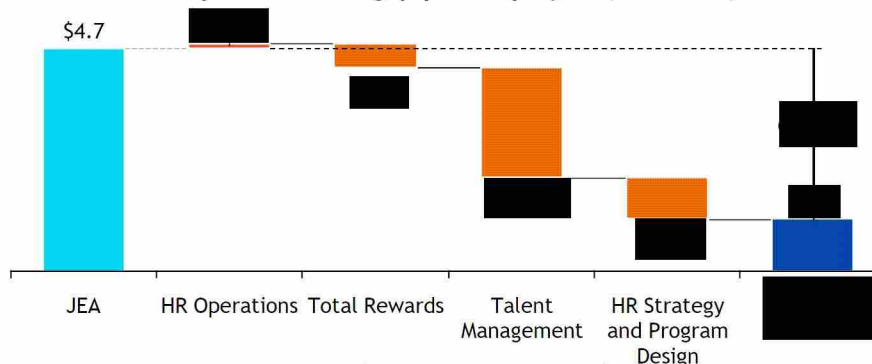
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Human Resources - Findings and Insights

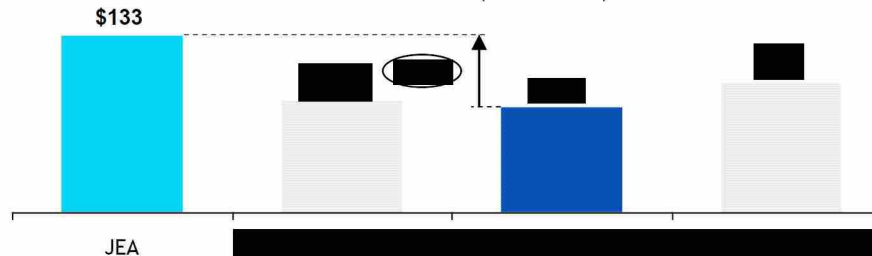
HR cost gap normalized to JEA revenue (USD M)³



HR process cost² gap per employee (USD 000s)



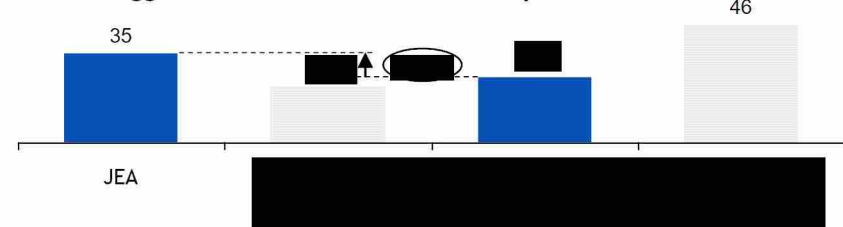
HR Labor Rate (USD 000s)



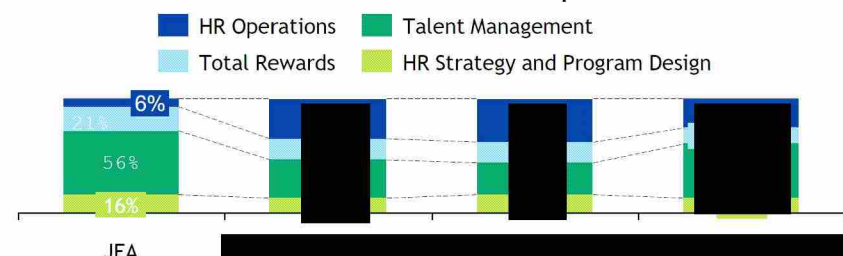
Key Findings and Insights

- Human Resources¹ 2016 O&M is \$11.5M (0.6% of revenue) and has 62 staff and associated labor costs of \$8.3M (72% of total HR cost)
- Total HR cost as a % of revenue is 55% higher than the [redacted] driven primarily by higher labor costs
- Total HR cost gap from the [redacted] is driven primarily by the labor rate (\$3.0) and staff size (\$1.6)
 - HR labor rate is 67% overweight
 - HR staff is 35% overweight based on staff per \$1B in revenue
- HR process cost gap of \$3,600 per employee from the [redacted] driven by a skewed staff distribution with a significant overweight in talent management (64%) due to the complete lack of functional technology systems

Suggested HR staff based on staff per \$1B in revenue



HR staff distribution across capabilities



1. "HR" is based on the function performed and includes all cost centers that roll up to the Chief Human Resources Officer

2. Process cost includes all labor and outsourcing costs (Labor includes all salaries and wages, benefits and incentives; Outsourcing consists of professional services)

3. Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.8B to illustrate comparisons

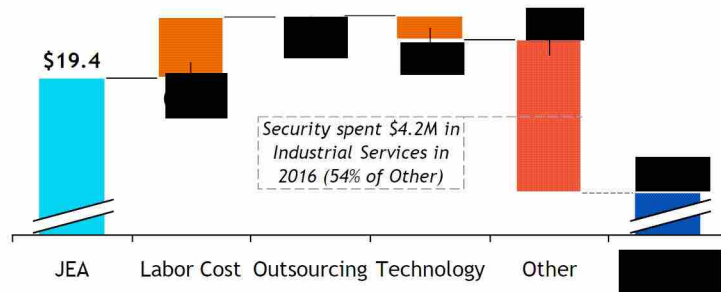
4. Low cost performer is based on the peer set in the first quartile of total human resources cost as a % of revenue, high cost performer is the 3rd quartile of cost as a % of revenue

Note: Technology cost is calculated as allocation of IT costs proportional to HR's share of overall O&M spend; Other consists of supplies, materials, and other services & charges (excluding professional services)

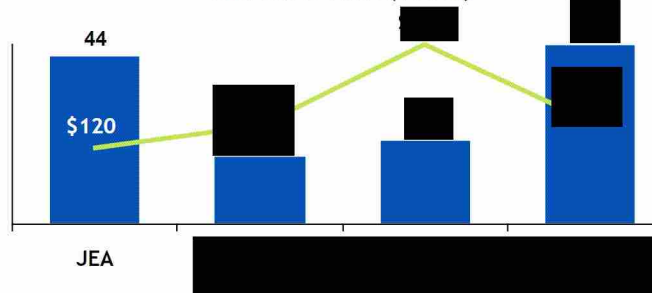
Source: Deloitte Global Benchmarking Center and JEA data

Other Corporate Services - Findings and Insights

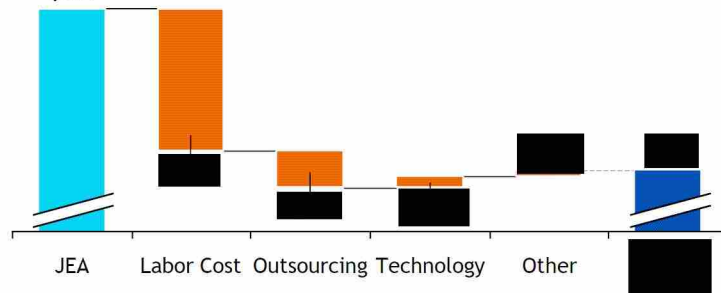
Corporate Services: Cost gap normalized to JEA revenue (\$M)²



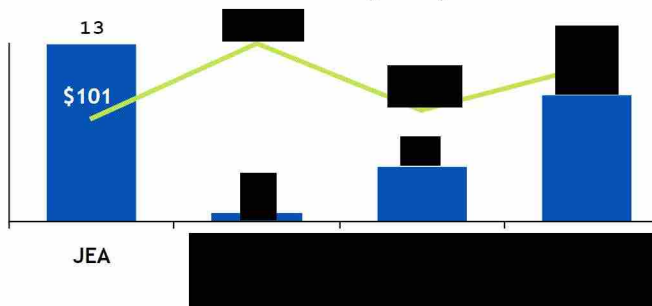
Corporate Services: Suggested staff per \$1B in revenue and Labor Rate (\$000s)



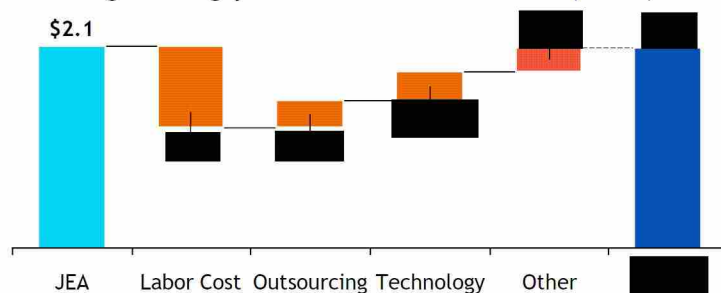
Corp. Real Estate: Cost gap normalized to JEA revenue (\$M)²



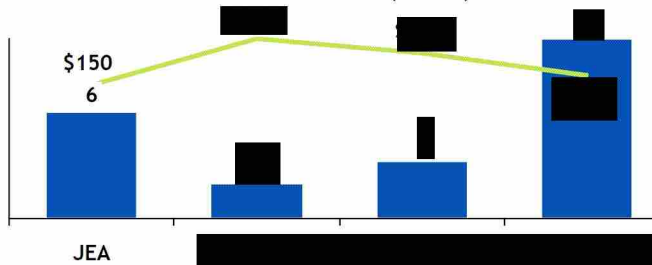
Corp. Real Estate: Suggested staff per \$1B in revenue and Labor Rate (\$000s)



Legal: Cost gap normalized to JEA revenue (USD M)²



Legal: Suggested staff per \$1B in revenue and Labor Rate (\$000s)



Key Findings & Insights

Corporate Services¹

- Cost gap driven by high technology and other, which are offset by low labor and outsourcing
- Labor costs are below median despite a staff size twice the value of the [redacted] due to depressed labor rate (42% of median)

Corporate Real Estate¹

- High labor and outsourcing costs account for gap of \$1.8M, but are partially offset by technology and other costs
- Staff size is 3x the [redacted] causing high labor cost despite relatively low labor rates

Legal¹

- Labor costs are high, but are entirely offset by outsourcing, technology and other costs
- Staff size is 3x the LCP, whereas labor rates are 71% of the LCP

1. Corp. Services includes chief executive office, public affairs (including environmental compliance, programs, permitting, and services), lab services and incident response, security and shared services; Corp. Real Estate includes utility locate services and real estate services; Legal includes compliance and procurement records

2. Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.8B to illustrate comparisons

3. Low cost performer is based on the peer set in the first quartile of total human resources cost as a % of revenue, high cost performer is the 3rd quartile of cost as a % of revenue

Note: Technology cost is calculated as allocation of IT costs proportional to HR's share of overall O&M spend; Other is calculated as the remainder of function cost after labor and outsourcing and comprises supplies, materials, and other services & charges (excluding professional services)

Source: Deloitte Global Benchmarking Center and JEA data

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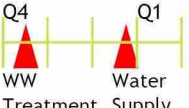





Opportunities by Function

Core Business

- Total Estimated 2016 Spend: **\$391M**
- Potential Costs Savings Opportunity: **\$8.0-26.8M**

Electric supply and W/WW plants are effective operators. Electric and W/WW delivery/ collection deal with similar challenges despite different quartiles of performance

Modest opportunities exist through managing overtime, engaging corporate services more and reconsidering service center footprint













Business Unit	Basis	Benchmark Analysis	Capability Assessment	Realignment Potential
Energy Supply	Capacity Factors		Exceeds Meets Below 	
Energy Delivery	O&M/ Line Miles		Exceeds Meets Below 	
Water Collection & Delivery	O&M		Exceeds Meets Below 	
Water Treatment	O&M		Exceeds Meets Below 	
Customer Service	O&M Exp./ Call		Exceeds Meets Below 	

Corporate Services

- Total Estimated 2016 Spend: \$235M
- Potential Costs Savings Opportunity: **\$41.4-81.8M**

Corporate services cost to service relationship misaligned

Opportunities exist by leveraging third party resources, mostly in technology and supply, and utilizing process automation to improve service levels while at the same time improving how core business units and corporate services engage to achieve collective results

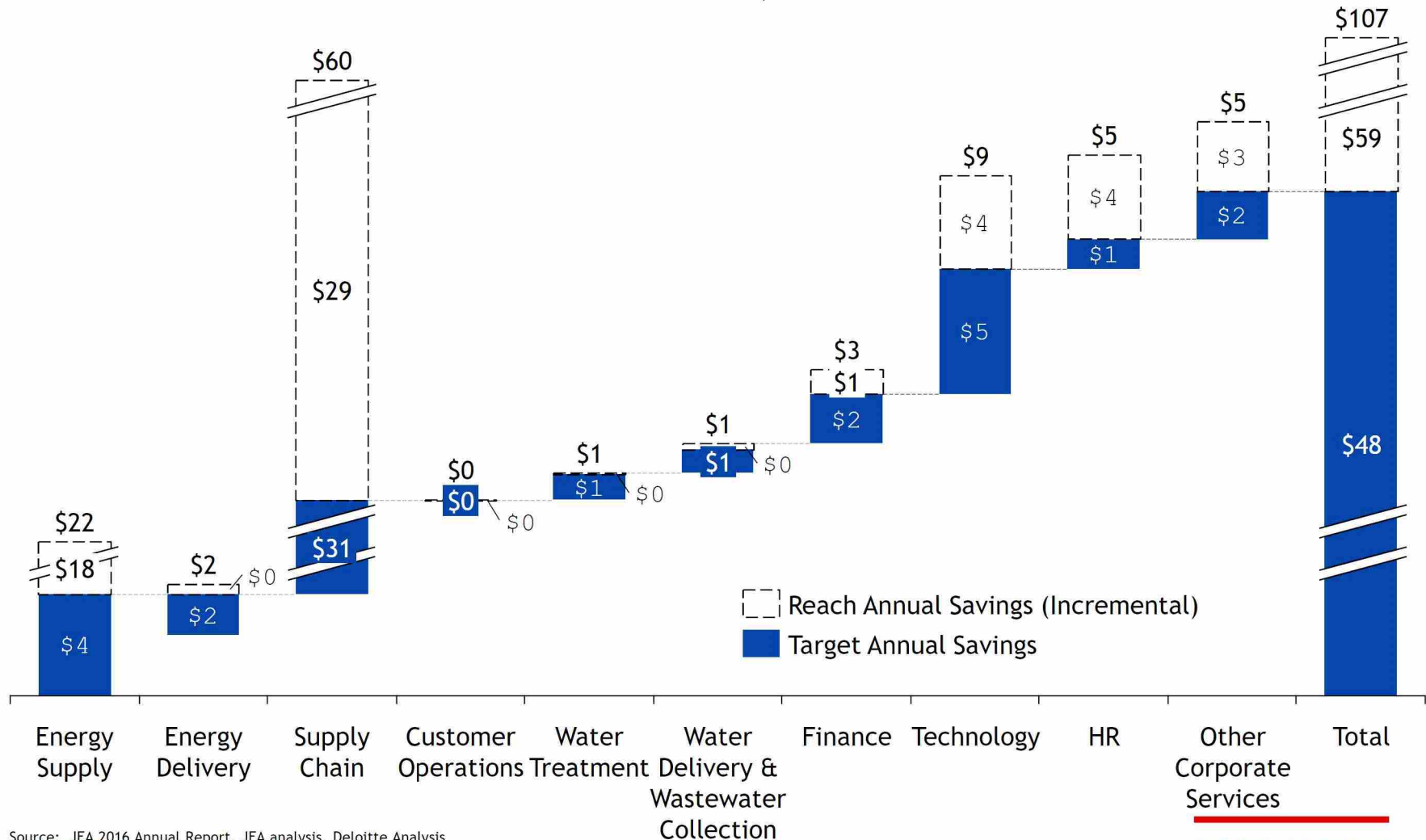
Business Unit	Basis	Benchmark Analysis	Capability Assessment	Realignment Potential
IT	\$/ End User		Exceeds Meets Below 	
Supply Chain	Staff/ \$1B in Revenue		Exceeds Meets Below 	
HR	% of Revenue		Exceeds Meets Below 	
Finance	Staff/ \$1B in Revenue		Exceeds Meets Below 	

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Opportunity Summary

Performance Excellence Target and Reach Summary by JEA Chief

2016 \$M



Source: JEA 2016 Annual Report, JEA analysis, Deloitte Analysis



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Opportunity Framework

Near-Term Impact Opportunities

Long-Term Impact Opportunities

Capability and Cost Excellence

- Improve core functional capabilities and performance by shifting freed resources to higher value activities and roles

Cost Efficient Resourcing

- Leverage third party providers for 'virtual' scale and access to skills in high 'challenge' functions

Hardened Strategic Management Capability

- Implement stronger strategic management model and processes (e.g. strategy, capital allocation, etc.)
- Improve accountabilities

Technology Rationalization and Digital Roadmap

- Develop a clear enterprise technology strategy, data architecture and roadmap that aligns with corporate and functional strategy

Accountable and Future Oriented Organization Model

- Align organization and governance model to build a robust EAM capability with a focus on linear assets
- Drive operational performance at all levels

Portfolio and Capital Realignment and Reallocation

- Increasingly leverage emerging long and distributed supply market by divesting of assets early and redeploying capital

Electric						
W/WW						
Corporate Services						

○ No impact to current procedures and practices ● High impact to current procedures and practices

Near-Term Cost and Capability Opportunities

Cost and Capability Levers

Automation

Resourcing

Governance

Agility

Discipline

Limit Manual Processes

Realign Cost and Service Levels

Mandate Financial and Operating Targets

Electric Supply	<ul style="list-style-type: none"> Automate frequent reporting 	<ul style="list-style-type: none"> Readjust staffing levels at specific plants to align with industry best practices 	<ul style="list-style-type: none"> Reduce inventory levels Include supply chain in planning
Electric Delivery	<ul style="list-style-type: none"> Automate frequent reporting 	<ul style="list-style-type: none"> Evaluate service center footprint to increase productive time 	<ul style="list-style-type: none"> Reduce overtime levels Reduce inventory levels Include supply chain in planning
Water Collection & Delivery	<ul style="list-style-type: none"> Automate frequent reporting 	<ul style="list-style-type: none"> Evaluate service center footprint to increase productive time 	<ul style="list-style-type: none"> Reduce overtime levels Reduce inventory levels Include supply chain in planning
Water Treatment	<ul style="list-style-type: none"> Automate frequent reporting 		<ul style="list-style-type: none"> Reduce overtime levels Reduce inventory levels Include supply chain in planning Limit P-Card procurement
Customer	<ul style="list-style-type: none"> Evaluate chat-bot and other process automation across customer and billing processes 	<ul style="list-style-type: none"> Evaluate mutual assistance opportunity Transition call center to JEA 'bootcamp' 	

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Near-Term Cost and Capability Opportunities

Cost and Capability Levers

Automation

Resourcing

Governance

Agility

Discipline

Limit Manual Processes

Realign Cost and Service Levels

Mandate Financial and Operating Targets

Supply Chain

- Leverage Oracle modules more effectively
- Automate non-Oracle processes

IT

- Stand up process automation capability

Finance

Automate month-end management reporting and AP at a minimum

HR

- Automate manual processes - especially recruiting
- Better leverage Oracle modules

- Attempt to recruit 4 to 5 more buyers

- Contract management audit
- Update procurement code
- Employ category management
- Reduce inventory levels

- Mandate strict technology project documentation
- Assign technology project budget and accountability to business

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Near-Term Cost and Capability Opportunities

Supply Chain Opportunities Summary

Contracts

Project Based Contract Spend: \$167.4M

Savings Potential
\$5-10M

- Review billings:
 - Rates
 - Quantities
 - Unit prices
 - Etc.
- Review application of discounts (volume based, payment terms, etc.)
- Review adherence to contract terms and conditions
- Strict review against quality

Spend Reduction

Top Services Spend: \$184.5M

Savings Potential
\$7-16M

- “Group” complimentary work together for bigger project spend
- Reduce supply base
- Review supplier qualification rules
- Monitor and review specification detail
- Clearly define project scope and outcomes

Inventory Spend: \$75.1M

Savings Potential
\$6-11M

- Reduce number of vendors
- Source as “basket of goods” rather than piece by piece
- Second source more spares

Inventory Reduction

March 2017 Value: \$45.3M

Savings Potential
\$11-23M

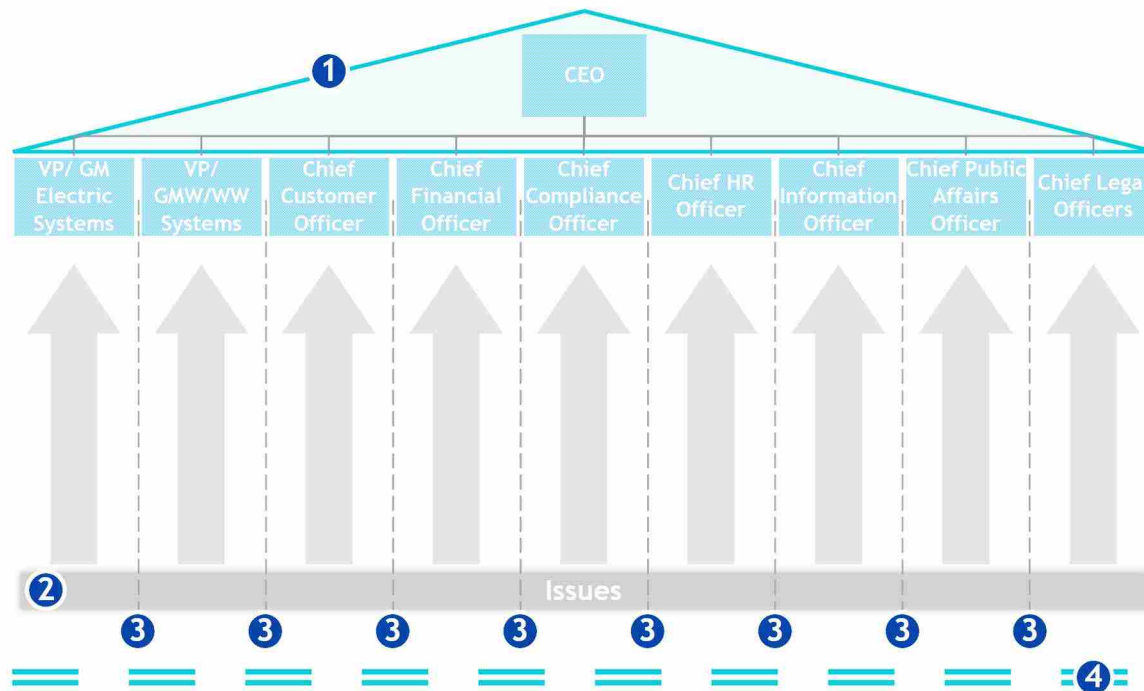
- Push business to take action on slow and non-moving items (E-items) that account for >50% of inventory
- Align inventory decisions and inventory dollars to be a shared responsibility

■ Nearer-term impact opportunities

■ Longer-term impact opportunities

Hardened Strategic Management Capability Opportunities

Strategic Management Capability Findings and Opportunities



Findings

1. One year planning horizon
2. An expressway exists for issues to reach the SLT
3. Vertical orientation and isolated performance measures
4. "This is the way we have always done it here" culture

Expand Planning Horizon to 10 years

- Develop strategic planning process accounting for industry, regulatory, customer and internal performance trends
- Prepare and maintain 10 year roadmap identifying the timing of performance targets, capability development and change management

Increase Number of Reporting Entities

- Increase the financial and operational performance accountability by increasing the number of business units with "P & L" responsibility

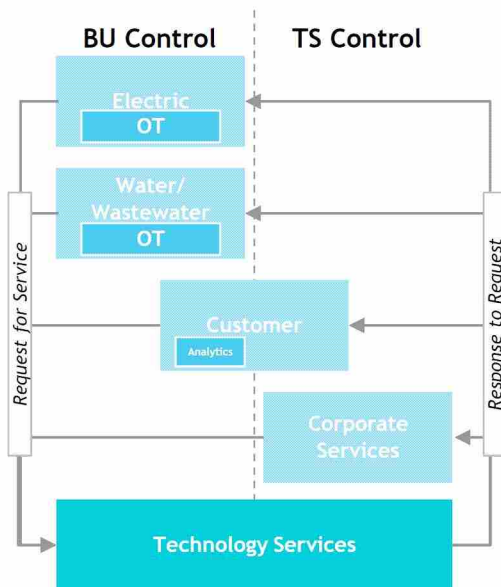
Assign Joint Performance Metrics

- Jointly assign strategic and operational metrics to leading and contributing organizations
- For projects and process outcomes, the organization with decision control should also be responsible for outcomes and therefore be the entity that funds transactions and/ or projects

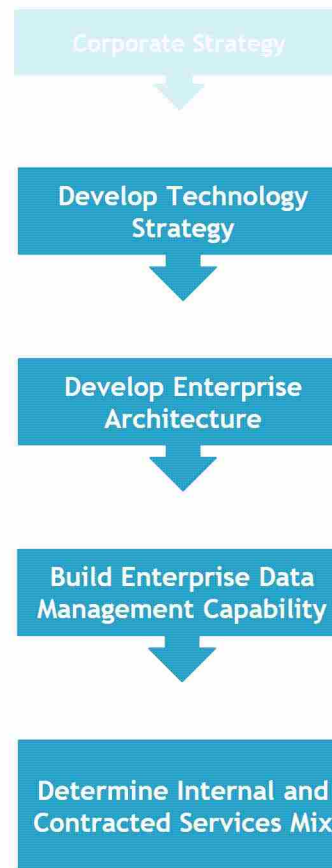
Technology Rationalization and Digital Roadmap Opportunities

Technology Opportunities

Current Technology Services



- Transactional relationship between TS and business units
- IT and OT separate staff, contracting, etc.
- One year focus of current planning combined with employment model limits technology capability building to support Utility 2.0



Future Technology Operations



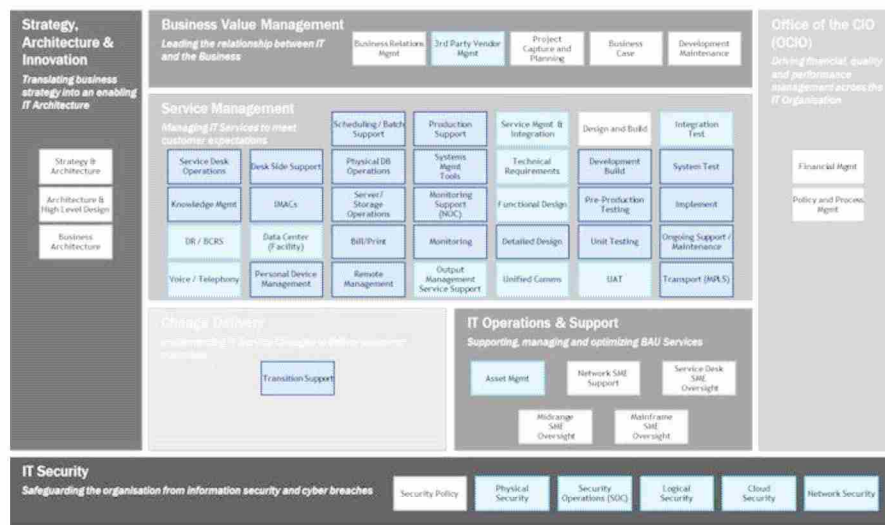
- Collaborative relationship between technology operations and business units
- Converged IT and OT platforms based on single technology strategy and architecture
- Sourcing leverages all options available to access needed skills

Delivery Model Options

Given the importance of talent in technology and supply chain, considering delivery model options that overcome employment challenges is paramount to unlock reach savings potential

Technology

- JEA needs a service aligned technology model
- Business units are engaged early in a structured dialogue to deliver services transparently based on needed service, quality and cost levels
- Leveraging contracted services is not just a cost play, it is also a capability enhancement and “future proofing” risk mitigation play
- At a minimum, service management functions are the most likely to consider sourcing through a different delivery model



Procurement

- JEA needs a more strategic procurement function which requires access to greater numbers of high quality buyers
- Organizations typically contract more tactical functions related to reporting, analytics and purchase order execution...
- ..., and retain activities related to strategy, sourcing decisions, contract negotiation and supplier adherence
- 3rd party providers can help bridge category management needs or to handle tactical activities while transitioning to a more strategic skill-set

Strategic sourcing

Policy & Procedure development	Opportunity assessment
Demand management	Rfx Tender process
TCO & baseline development	Contract negotiations
Market analysis & benchmarking	Contract transition management

Category management

Catalog management	Supplier master file management
Compliance monitoring & exception reporting	Supplier performance management
Contract management	Spend analytics
TCO savings reporting	Spend reporting

Procurement operations

Procurement planning	Expedited PO processing	PO triage and close
PR processing	Receiving>Returns	Spot buying
PO processing	P-Card administration	Document management

Key

Not typically shared/sourced
Less commonly shared/sourced
Most commonly shared/sourced

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Accountable and Future Oriented Organization Model

Operating Model Options

Option 1 (Status Quo)

Electric Systems	W/WW Systems
------------------	--------------

Option 2

Electric Generation	Linear Assets	W/WW Plants
Plants and Purchased Power	Wires	Plants and Pumps
	Pipes	
	Fiber	
Engineering & Construction		Engineering & Construction
Planning	Planning	Planning

Option 3

Electric	W/WW	Asset Management
Plants	Plants	EAM
Linear Assets	Linear Assets	FMS
Planning	Planning	GIS
Engineering & Construction	Engineering & Construction	Mobile Work Management

Potential to Sustain Cost Savings



- Probability of costs leaking back higher - reverting to legacy behavior

Probability of Delivering an EAM capability



- History of large projects raises concern
- If businesses commit resources odds improve

Positioning JEA for the Future



- Planning and preparing the organization for change unlikely since SLT more likely to continue to actively manage



- Degree of change and increasing transparency and accountability reduces cost leakage the most



- Focus of linear asset business is to deliver capability
- Requires effective leader to be successful



- Challenge with this option is that organization is likely temporary and therefore repositioning is needed



- Cost leakage reduced by pushing financial reporting and accountability down a level



- Focus of asset management business is to deliver capability
- Effective leader need greater to combat legacy obstacles

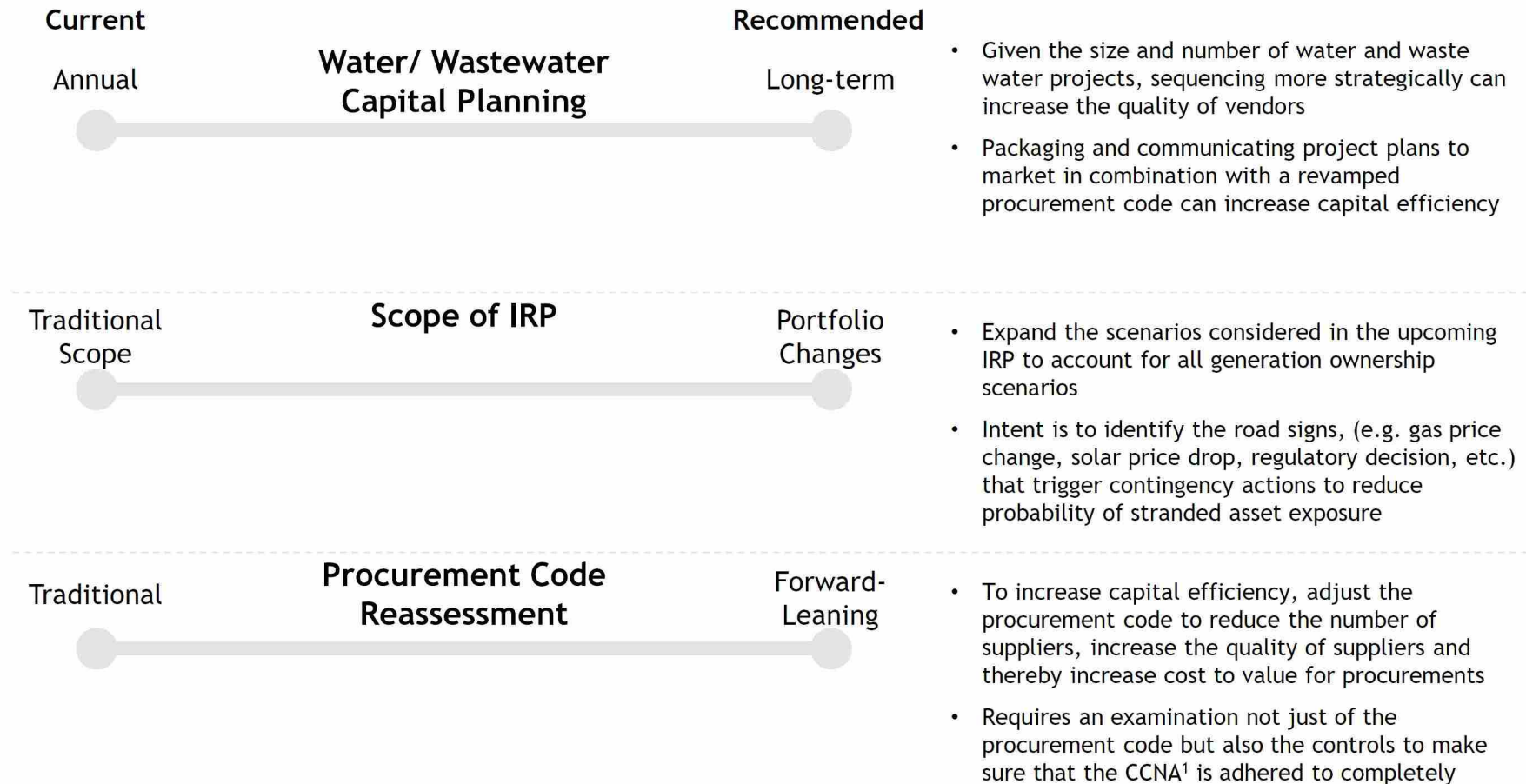


- By establishing a temporary organization from the outset that can be absorbed easily reduces future change

Recommended Option

Portfolio and Capital Realignment and Reallocation

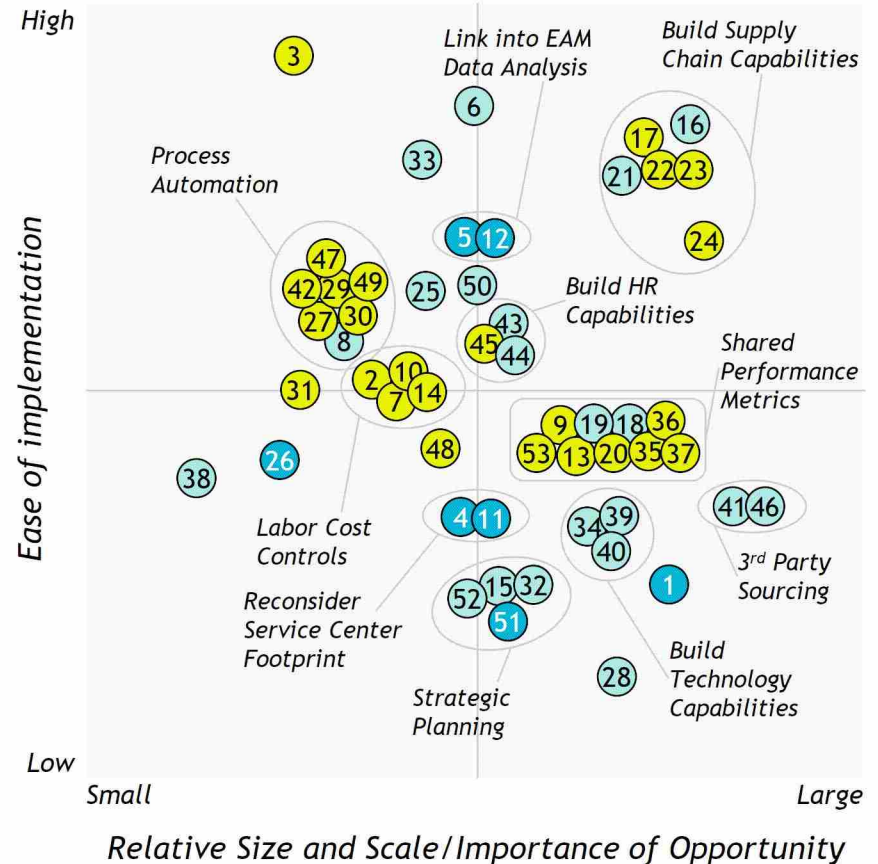
Recommended Changes to Increase Capital Agility



¹ Florida Statute 287.055 Acquisition of professional architectural, engineering, landscape architectural, or surveying and mapping services is commonly referred to as the “Consultants’ Competitive Negotiation Act” or CCNA

Opportunity Prioritization

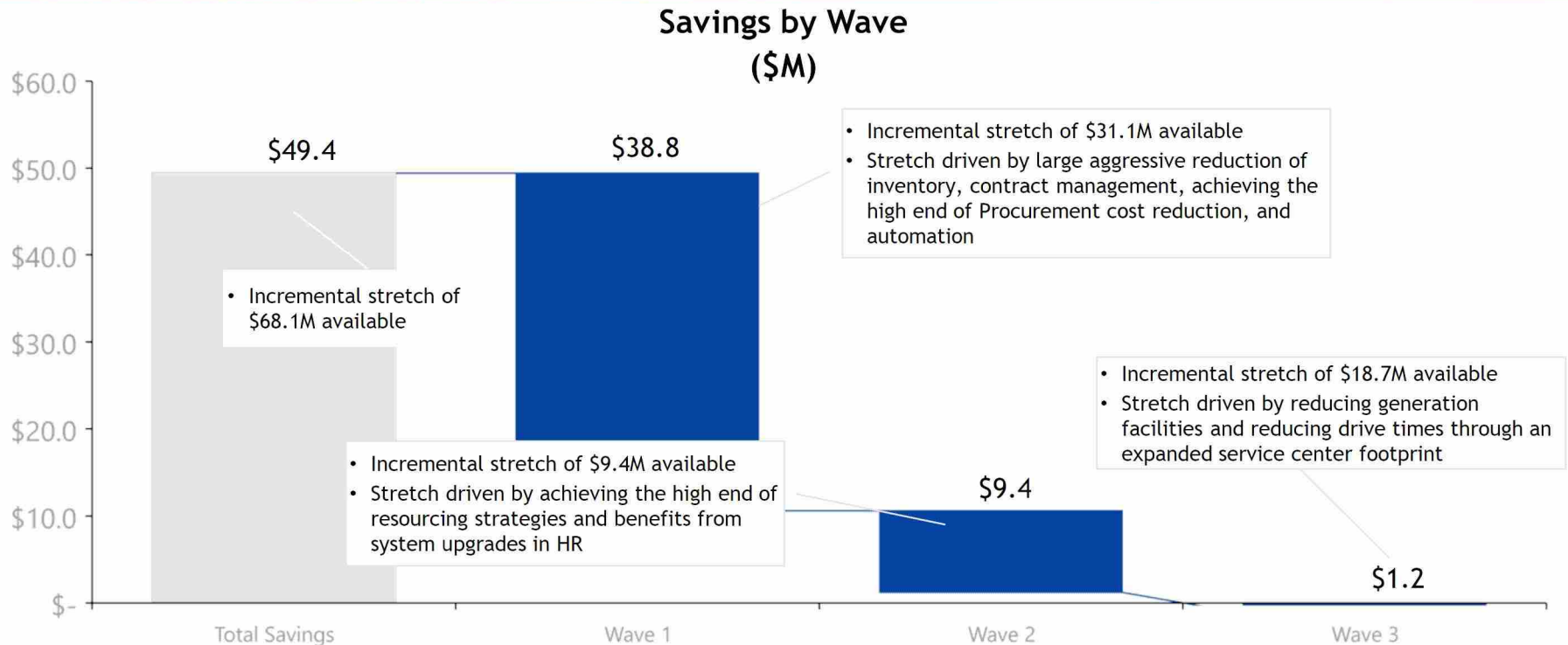
#	Fn.	Opportunities
1	ES	Leverage IRP to develop generation ownership plan
2	ES	Realign resource levels and workload
3	ES	Assign a TEA relationship manager within JEA
4 / 11	ED / WW	Improve service center footprint and dispatch locations
5 / 12	ED / WW	Perform asset management (EAM) and work order (WMS) audit to identify gaps in EAM and WMS and improve their collective use
6	ED	Simplify and empower employees to participate in EAM/WMS
7 / 10 / 14	ED/ WT / WW	Reduce overtime hours
8	WT	Standardize and automate operational data reporting
9	WT	Shift material acquisition and inventory mgmt. to procurement dept.
13	WW	Improve planning for vehicle maintenance and fleet expansion
15	SC	Define strategy and supporting operating model for Supply Chain
16	SC	Focus Buyers around category management
17	SC	Implement more robust contract management program
18	SC	Develop integrated capital/project process (planning through release)
19	SC	Develop shared KPIs and responsibilities across business
20	SC	Review Procurement Policies and Procedures to provide better service to Business and Vendors
21	SC	Obtain more visibility and control of spend that is currently "uncontrolled"
22	SC	Improve pricing in key "Services" categories
23	SC	Improve pricing in "Inventory" category
24	SC	Reduce inventory dollars
25	SC	Review Fleet EAM process to identify cycle time reduction opportunities
26	SC	Investigate use of Fleet Management System
27	SC	Automate processes and enhance use of Oracle
28	F	Delegate P&L ownership to enhance accountability within the bus.
29	F	Enhance accounts payable via automation
30	F	Automate month-end management reporting
31	F	Review reporting strategy & functional practices
32	T	Develop enterprise technology strategy
33	T	Redesign the TPC to be the technology strategy execution body
34	T	Develop enterprise architecture (EA) capability
35	T	Transition technology project budgets and overall accountability to business
36	T	Assign Technology Operations responsibility for project technical outcomes
37	T	Mandate strict technology project documentation
38	T	Prepare for Agile project development
39	T	Develop enterprise data management capability build plan
40	T	Develop data governance and architecture
41	T	Source technology talent
42	T	Build process automation factory
43	HR	Upgrade Internal HR Technology Systems
44	HR	Reconfigure the recruiting process
45	HR	Create change management team
46	CS	Revisit resourcing strategy
47	CS	Automate Corporate Services
48	CO	Investigate mutual assistance to maintain or reduce call center sizing
49	CO	Determine if Chat Bot could further reduce CSR call volume
50	CO	Transition call center to JEA 'boot camp'
51	G	Position operating model for Utility 2.0
52	G	Prepare and Maintain 10 Year Strategic Roadmap
53	G	Establish Shared Performance Metrics



CS = other corporate services; CO = Customer Operations; ED = electric delivery; ES = electric supply; F = finance; G = governance and operating model; HR = human resources; SC = supply chain; T = technology; WT = water/ waste water treatment; WW = water/ waste water delivery and collection

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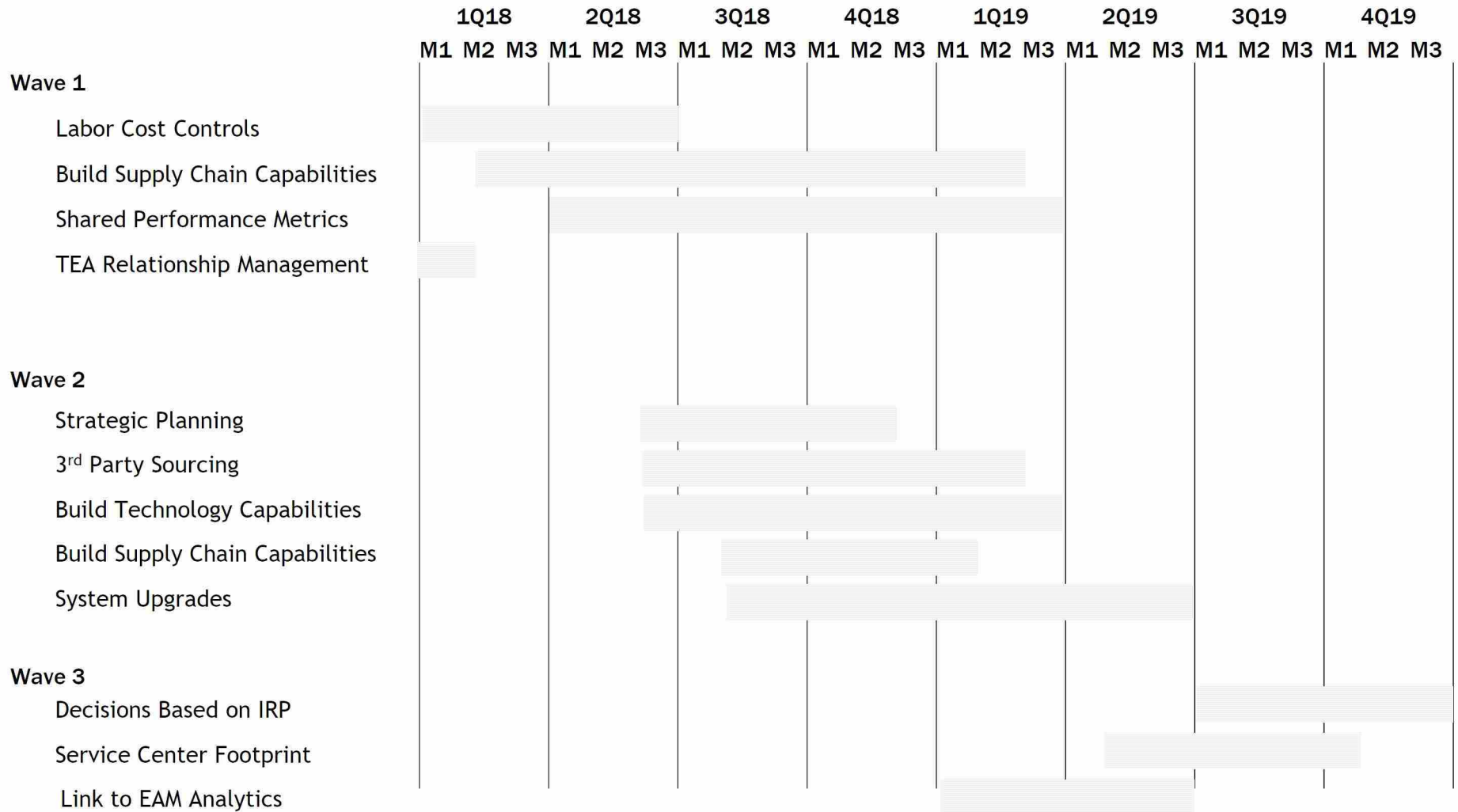
Cost Savings by Wave



Discussion

- Wave one is focused on quick wins that are not dependent upon organization or strategy changes
 - savings come through the reduction of overtime, contract management, inventory reduction, reduced spend in key Procurement categories, and automation
- Wave two is focused on implementation of strategies, increasing accountability and shared performance metrics
 - savings come through the establishment of enterprise as well as technology and supply chain strategies that prioritize what skills gaps to close cost effectively with 3rd parties while increasing services provided to JEA
- Wave three opportunities come from reallocating capital to support the achievement of the Utility 2.0 vision while further leveraging the “variabilized” spend from the previous two waves

Initial Roadmap - Measured Pivot to Utility 2.0



Programmatic Approach

What We Aspire To	Strategic Planning and Roadmap - Adjust Operating Model and Performance Targets		
Who We Are	Performance Culture - Joint Performance Metrics and Accountability		
How We Operate	Cost Restructuring <ul style="list-style-type: none"> Reduce number of suppliers to improve procurement cost to value Develop common inventory standards Develop contract management capabilities Reduce overtime to best practices 	Organizational Platform <ul style="list-style-type: none"> Leverage contracted services to increase service levels, including: <ul style="list-style-type: none"> Technology Procurement Increase engagement between core businesses and corporate services - especially planning by employing shared performance metrics 	Technology Platform <ul style="list-style-type: none"> Create technology strategy and enterprise architecture to establish JEA priorities Reengineer EAM processes to create golden record and understand asset and resource performance
	Capital Readiness <ul style="list-style-type: none"> Expand scope of scenarios in IRP to assess generation ownership options Leverage strategic goals to prioritize and sequence capital across Water/WW and electric to improve capital efficiency Integrate resource planning into annual and project planning 		
How We Prepare	Functional Programs <ul style="list-style-type: none"> Supply Chain - Strategic refocus, inventory management, sourcing programs, contract management Technology - Develop strategy, enterprise architecture and enterprise data management Process automation - Better leverage Oracle modules and reduce manual activities Water & Electric - standardize EAM processes, reduce overtime and service center footprint 		
How We Execute	Change Management <ul style="list-style-type: none"> Stand up change management capability within HR to help shift culture overall by providing comprehensive support Create dashboards of key performance indicators based on commonly tracked metrics to indicate progress of change plan and to identify areas needing extra attention Integrate governance and accountability model 		
How We Sustain			

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Key Decisions and Next Steps

Before the end of the current fiscal year:

- Develop a 12 month roadmap (priority and timing) based on SLT response to assessment findings and recommendations
- Determine accountabilities and support needed for initial priorities including adjustments within the JEA 2018 budget to support identified initiatives
- Establish lean program management team to track and support initiatives - especially initial ones like supply chain, overtime, and process automation that can be used to generate momentum
- Develop and implement communication plan for customers, employees, board members, City government and other stakeholders based on initial priorities

Beginning of next fiscal year:

- Refine and initiate long term strategic planning process
- Initiate wave 1 initiatives that have been selected by JEA leadership

Governance & Operating Model

Governance and Operating Model

Assessment

Capability Alignment with Utility 2.0



Comparative Metrics



Alignment

Demand Levels



Service Levels



Cost Levels



Situation

- JEA has made significant performance improvement strides in recent years; preparing for the future requires a strategic, performance based operating model and increased accountability
- Current planning horizon limits focus on preparing organization for change
- It also promotes an active management versus strategic management style by the SLT
- The SLT's workload is not the issue, but rather its focus since JEA is pivoting to Utility 2.0
- Positioning JEA for a Utility 2.0 requires a strategic versus active management approach
- Independent of Utility 2.0, employing shared performance metrics for processes and projects will increase cost efficiency

Governance and Operating Model - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Position operating model for Utility 2.0		
Prepare and Maintain 10 Year Strategic Roadmap		
Establish Shared Performance Metrics		
Total Savings	\$TBD	\$TBD

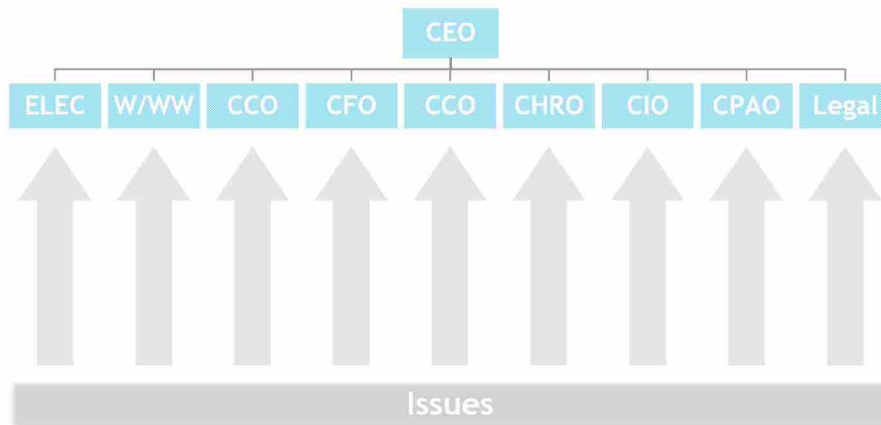
Note: See detailed opportunity summary in the appendix



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Findings and Insights

Operating Model Design Promotes Active Management



Impact of Utility 2.0

Enhanced
Operating
Efficiency

System and customer demands are not being offset by equal or greater growth in demand

Accelerating
Decision
Cycles

Shorter asset lives, advancing regulations and technology breakthroughs increasing need for agility

Granular
Business
Intelligence

Shorter asset lives, advancing regulations and technology breakthroughs increasing need for agility

Current Culture

Common Statements Heard During Interviews and Meetings

"This is how we have always done it"

"We tried that about 25 years ago and it didn't work"

"I only trust it if I do it"



Key Findings and Insights

- The current operating model promotes active management by the SLT
- JEA employs a one year planning horizon
- The current culture is anchored on experience and seniority - often referred to as tribal knowledge
- Accountability is inconsistent throughout levels of the organization and across functions
- The level of engagement between the core businesses, electric and W/WW, and corporate services, like supply chain, is limited creating tension between the two

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Components and Impact of Utility 2.0

Utility 2.0 Industry Shifts

Enhanced Operating Efficiency

- For electric utilities, flat demand is not offsetting capital requirements creating upward demand pressure
- For water utilities, fragmented industry structure and minimal capital investment has limited focus on modernization though customers are demanding it
- Therefore, variable and project cost optimization is critical to offset upward rate pressure and meet customer needs cost effectively

Accelerating Decision Cycles

- As electric and water industry shifts from hardware- to software-based, asset lives are shrinking while regulations continue to change across the country and technology advancements are altering fundamentals more for electric than water
- Therefore, utility planning and decision cycles need to be more agile to limit the potential for stranded assets, regulatory/ political challenges and/ or customer dissatisfaction

Granular Business Intelligence

- Historically electric utilities made system-wide decisions, looking forward investments in one part of the system may make sense for the utility but in others the customer may be the prudent investor
- For both electric and water systems, understanding why each asset is or is not likely to live to its accounting life and whether or not it will do so economically remains a priority to maximize asset value
- Therefore, greater fidelity about all aspects of the business are needed

Impact on JEA's Operating Model



'Variabilize' Costs



Accountability



Empowerment



Long-Term/ Strategic Planning



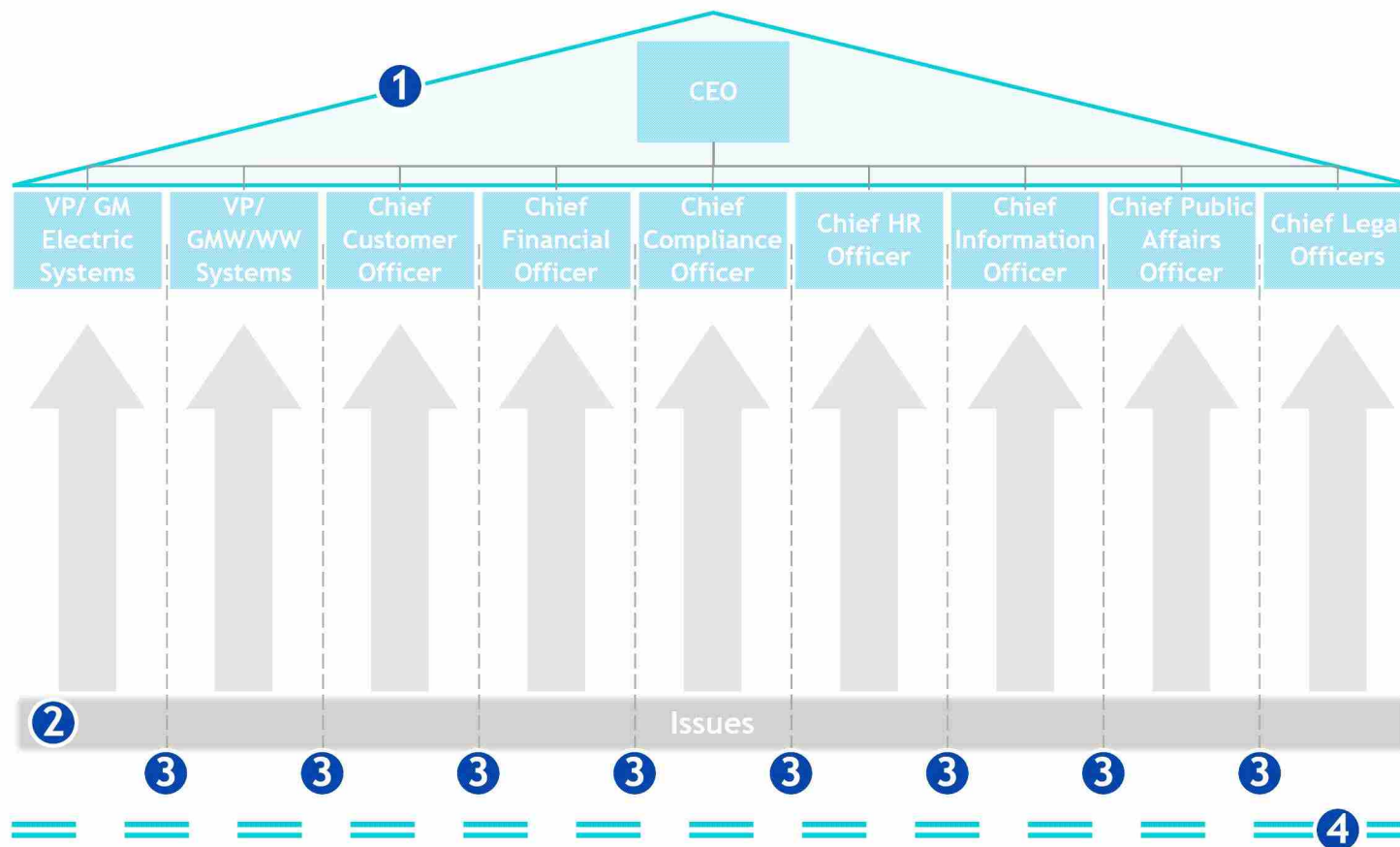
Transparency



Data and Analytics

Governance and Operating Model Findings

Summary of JEA Governance and Operating Model Findings



- 1** The on year planning horizon for JEA adds challenges to achieving multi-year, coordinated objectives
- 2** An expressway exists for issues to reach the SLT - enabling an active management approach by SLT
- 3** Vertical orientation and isolated performance measures separate decision making and outcomes between business and corporate services
- 4** "This is the way we have always done it here" culture limits change readiness and promotes distrust of other internal and especially external entities

Operating Model Requirements and Factors to Achieve Utility 2.0

Operating Model Requirements

- Push management of day-to-day business down a level in the organization so SLT can spend more time on long-term planning and prepare the organization for change
- Develop, implement and manage a common enterprise asset management capability to increase resource and asset efficiency
- Increase financial and operational transparency - thereby increasing granularity
- Provide an overt signal to the organization that JEA is changing the way it operates

Potential Limiting Factors

- Asking SLT members who actively manage their business to relinquish control
- Discomfort of changing established SLT and organizational practices and processes
- Transitioning from stating commitment to Utility 2.0 to taking action to achieve it
- Trusting other parts of JEA and external parties to achieve Utility 2.0 vision

Operating Model Options to Position JEA for Utility 2.0

Operating Model Options

Option 1 (Status Quo)

Electric Systems	W/WW Systems
------------------	--------------

- Financial and operational reporting and accountability remains at current level
- Creating an asset management capability is a cross-functional project, requiring electric and W/WW to commit to:
 - Own project success or failure including establishing common JEA asset, inventory and mobile work management processes
 - Resource the project adequately for its duration
 - Coordinate and leverage corporate services as needed
 - Delivering the project to JEA in 3 years

Option 2

Electric Generation	Linear Assets	W/WW Plants
Plants and Purchased Power	Wires	Plants and Pumps
	Pipes	
	Fiber	
Engineering & Construction		Engineering & Construction
Planning	Planning	Planning

- Financial and operational reporting and accountability is moved to a lower level
- Linear assets business responsible for establishing, implementing and managing three common process across unit:
 - Asset management
 - Inventory Management
 - Mobile work management
- Technology and other corporate services will assist linear assets unit to produce a solution within 3 years
- Electric generation business focus is on near term cost efficiency and long-term portfolio optimization
- W/WW plant business focus is on CUP planning

Option 3

Electric	W/WW	Asset Management
Plants	Plants	EAM
Linear Assets	Linear Assets	FMS
Planning	Planning	GIS
Engineering & Construction	Engineering & Construction	Mobile Work Management

- Financial and operational reporting and accountability is moved to a lower level assigned to standardized business segments within Electric and W/WW business units
- Temporary asset management business responsible for establishing a common asset management solution following these priorities
 - Business requirements
 - Common process requirements
 - People/ skill requirements
 - Technology requirements
- Asset management business reports to the CEO and CFO and is tasked with delivering the solution within 3 years

Operating Model Options Scoring and Recommendation

Operating Model Options

Option 1 (Status Quo)

Electric Systems	W/WW Systems
------------------	--------------

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Potential to Sustain Cost Savings



- Probability of costs leaking back higher - reverting to legacy behavior

Probability of Delivering an EAM capability



- History of large projects raises concern
- If businesses commit resources odds improve

Positioning JEA for the Future



- Planning and preparing the organization for change unlikely since SLT more likely to continue to actively manage



- Degree of change and increasing transparency and accountability reduces cost leakage the most



- Focus of linear asset business is to deliver capability
- Requires effective leader to be successful



- Challenge with this option is that organization is likely temporary and therefore repositioning is needed



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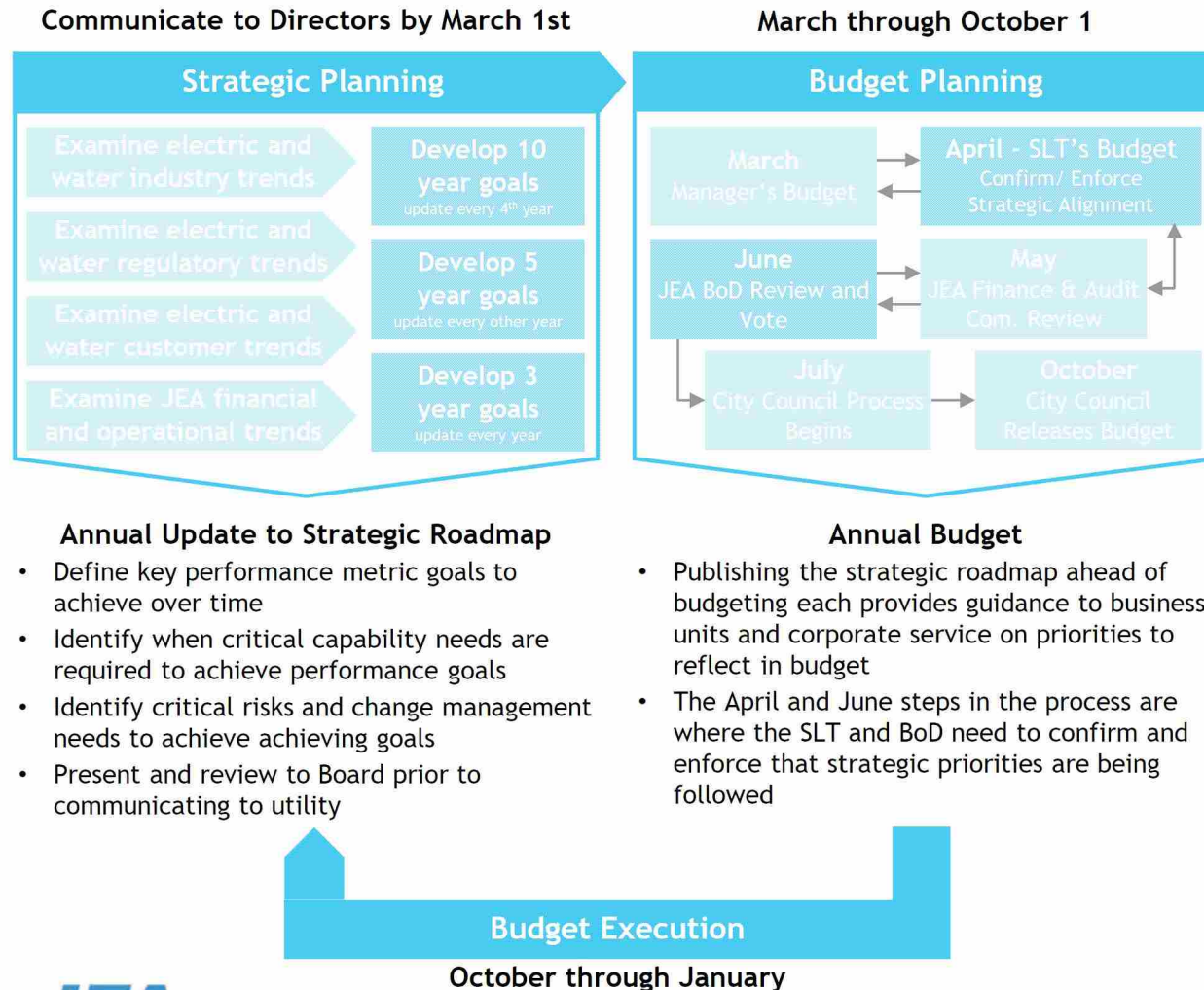


- By establishing a temporary organization from the outset that can be absorbed easily reduces future change

Recommended Option

Prepare and Maintain a 10 Year Strategic Roadmap

Strategic and Budget Planning Process Integration



- Current planning process focuses on the next fiscal year's performance and objectives
- The customer satisfaction improvement program demonstrates that the process can accomplish multiyear strategic objectives
- However, given the capital potentially at risk in the generation fleet and the capital needs of W/WW a strategic planning process it is prudent to plan longer term
- Will enable and require corporate services like technology and HR to become business partners to help business achieve goals by prioritizing spend on critical path needs

Establish Shared Performance Metrics

Performance Metrics Recommendations

Deliver Business Excellence			
OUTCOME METRICS: Grow Revenues	FY17 Goal	YTD FY17	Status
Grow revenues from new business lines and unbilled revenue reductions	\$12 million	\$6 million	🟢
OUTCOME METRICS: Enterprise Asset Management	FY17 Goal	YTD FY17	Status
Identify EAM principle-driven projects capable of producing \$10 million of annual value	\$10 million	TBD	🟡
Cost performance:			
1a. Non-Fuel Electric \$/MWh	1a. < \$53.94/MWh	1a. \$55.07/MWh	🔴
1b. Water \$/kGal			
1c. Wastewater \$/kGal			
Debt/Asset Ratio Reduction - No new debt			
No base rate increases projected for at least 10 years in water/sewer			
At least 100 customers on Demand Rate			
Improve Reliability - CEMI-5 less than: M			
Water pressure > 50psi: Meets - 95% Ex			
Develop an Unbeatable Team			
OUTCOME METRICS: Improve Employee Satisfaction and Engagement	FY17 Goal	YTD FY17	Status
Delivery of Respect and Inclusion curriculum/activity to all employees	100%	95% Appointed Complete 15% Non-Appointed Complete	🟢
Roll out "I Am An Ambassador" program to all employees	100%	61%	🟢
Consistent development of relevant job goals			
OUTCOME METRICS: Engage Employees	FY17 Goal	YTD FY17	Status
At least one completed development activity for FY16-17			
Design and completion of career path plan			
Design completion and delivery of curriculum competency gaps			
Develop an Unbeatable Team			
OUTCOME METRICS: Ensure a safe, healthy and ethical workplace	FY17 Goal	YTD FY17	Status
Safety - Recordable incident rate (RIR) meets or exceeds established objective	RIR 1.4	RIR 2.21	🔴
100% compliance with new ethics training requirements (new employees must take within 10 days of employment)	100% completion of new training by established guideline	100%	🟢
Participation of at least 70% of employees in wellness activity (sponsored activity, annual personal health assessment, bio-metric)			
Earn Customer Loyalty			
OUTCOME METRICS: Be Easy to Do Business With	FY17 Goal	YTD FY17	Status
Customer Service: Residential and Business	R: 1 st B: 1 st	R: 1 st B: 1 st	🟢
Power Quality and Reliability: Residential and Business	R: 1 st B: 1 st	R: 1 st B: 1 st	🟢
OUTCOME METRICS: Empower Customers to Make Informed Decisions	FY17 Goal	YTD FY17	Status
Communications: Residential and Business	R: 1 st B: 1 st	R: 1 st B: 1 st	🟢
Billing & Payment: Residential and Business	R: 1 st B: 1 st	R: 1 st B: 1 st	🟢
Price: Residential and Business	R: 1 st B: 1 st	R: 1 st B: 1 st	🟢
OUTCOME METRICS: Demonstrate Community Responsibility	FY17 Goal	YTD FY17	Status
Corporate Citizenship: Residential and Business	R: 1 st B: 1 st	R: 1 st B: 1 st	🟢

- Strategic metrics need to be jointly assigned to leading and contributing organizations from across JEA
- Operational metrics that require cross-functional contributions need to be jointly assigned to leading and contributing organizations
- Strategic and operational metrics are assigned to leading and contributing organizations versus accepted or adopted by the leaders of those organizations
- For projects and process outcomes, the organization with decision control should also be responsible for outcomes and therefore be the entity that funds transactions and/ or projects
 - Example #1, the business unit should be accountable for technology project outcomes and pay for them
 - Example #2, the business unit should be accountable for the cost of inventory if allowed to maintain decision control over inventory levels and disposal

Appendix

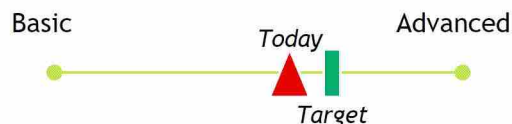
Governance and Operating Model - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target	Reach
Position operating model for Utility 2.0	<ul style="list-style-type: none"> Push management of day-to-day business down a level in the organization so SLT can spend more time on long-term planning and prepare the organization for change Develop, implement and manage a common enterprise asset management capability to increase resource and asset efficiency Increase financial and operational transparency Provide an overt signal to the organization that JEA is changing the way it operates 	↔ <i>Intent is free up time for SLT to focus on strategic planning</i>	↑ <i>Empowering lower levels increases competency at all levels</i>	↓ <i>Increasing accountability should result in better cost performance</i>	↔ <i>City officials will need to be prepared for changes, especially pushing P&L down</i>	↑ <i>Increasing strategic planning allows for customer concerns to be strategically addressed</i>	↑ <i>Increasing change readiness is key part of operating model changes</i>		
Prepare and Maintain 10 Year Strategic Roadmap	<ul style="list-style-type: none"> Define key performance metric goals to achieve over 3, 5 and 10 years Identify when critical capability needs are required to achieve performance goals Identify critical risks and change management needs to achieve achieving goals Present and review to Board prior to communicating to utility to guide budgeting priorities 		↑ <i>A coherent strategy prioritizes efforts, reducing extraneous work</i>	↓ <i>Prioritizing efforts within business units and across JEA increases cost efficiency</i>	↑ <i>Including City concerns in strategy allows for broader budget value narrative</i>	↑ <i>Enhances electric and W/WW value narrative for customers</i>	↑ <i>Providing direction and priority always increases morale</i>		
Establish Shared Performance Metrics	<ul style="list-style-type: none"> Strategic metrics need to be jointly assigned to leading and contributing organizations from across JEA Operational metrics that require cross-functional contributions need to be jointly assigned to leading and contributing organizations Strategic and operational metrics are assigned to leading and contributing organizations versus accepted or adopted by the leaders of those organizations For projects and process outcomes, the organization with decision control should also be responsible for outcomes and therefore be the entity that funds transactions and/ or projects 	↓ <i>Reduces internal rework and work-arounds to overcome currently ineffective cross-functional efforts</i>	↑ <i>Increasing and sharing accountability typically leads to better process outcomes</i>	↓ <i>Increasing and sharing accountability typically leads to better process efficiency</i>		↑ <i>Customer facing processes and projects will be more effective and efficient</i>	↑ <i>Better and more efficient project and process outcomes improve productivity</i>		

Electric Supply

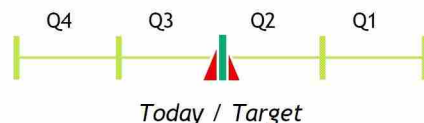
Assessment

Capability Alignment with Utility 2.0



Comparative Metrics

Total O&M / MWH, 5 Year FL Average



Alignment

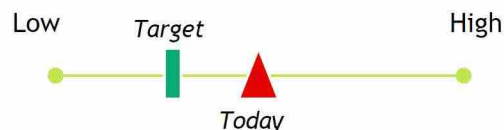
Demand Levels



Service Levels



Cost Levels



Opportunity

- Key question for power supply is fleet size / mix going forward given market trends (existing fleet contains flexible natural gas peaking plants, mid-capacity base, and shoulder power plants)
- A 5-year average from 2012 to 2016 shows JEA is in the second quartile for cost of power production in Florida¹ (Q1: BBCT-2, BBCT-3 and BBST-4; Q2: NS-1 and NS-2; Q4: NS-3 operates in Q4)
- Fleet incurs high economic (60% of total fleet hours) and planned (7%) outages, creating work and increasing cost / KWH generated
- Service levels are high - Northside Generating Station (NGS) exceeds industry-leading staffing ratios by 35 resources with excess staffing in Mechanical, Electric, and Instrument & Control Technicians
- Near term savings opportunities in managing overtime hours and standardizing processes
- Longer term savings potential in reexamining individual units and the entire generation fleet

Note: Total O&M = (Non-Fuel Non-Allowance Variable O&M Costs + Fixed O&M Costs + Fuel Costs)

¹ Comparative metrics against all owners of operating power plants in Florida with over 500MW of combined capacity

Source: JEA power plant unit outage data, SNL, Deloitte Analysis

Energy Supply - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Leverage IRP to develop generation ownership plan	\$0.00	\$18.00
Realign resource levels and workload	\$4.25	\$4.25
Assign a TEA relationship manager within JEA	Soft dollar savings associated with better utilizing TEA's service offerings	
Total Savings	\$4.25	\$22.25

Note: See detailed opportunity summary in the appendix

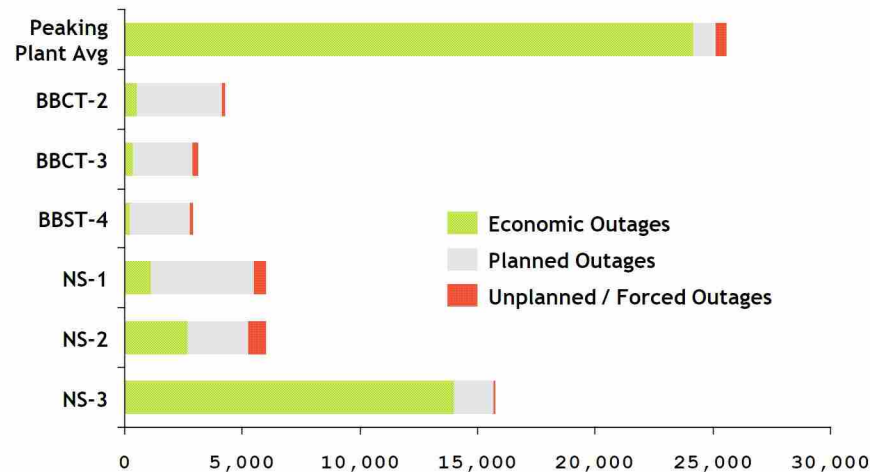


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Energy Supply - Findings and Insights

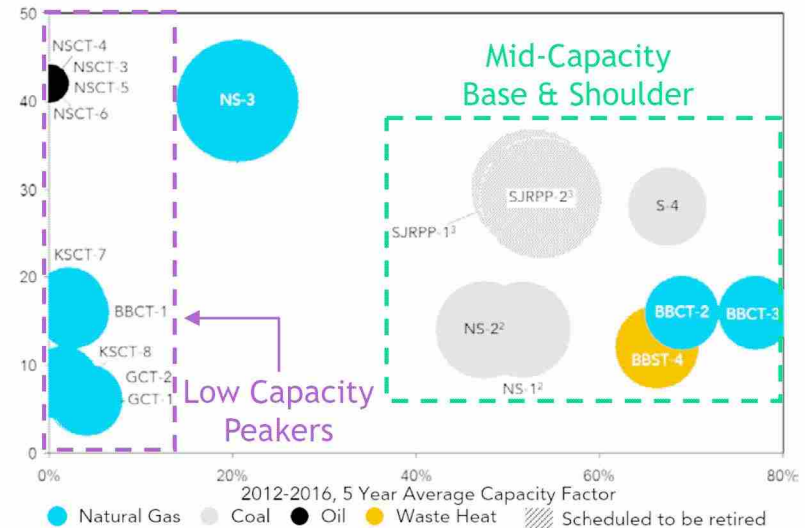
Rationalization of JEA Generation Fleet

Outage Hours at Power Plants Units 2014 through 2016



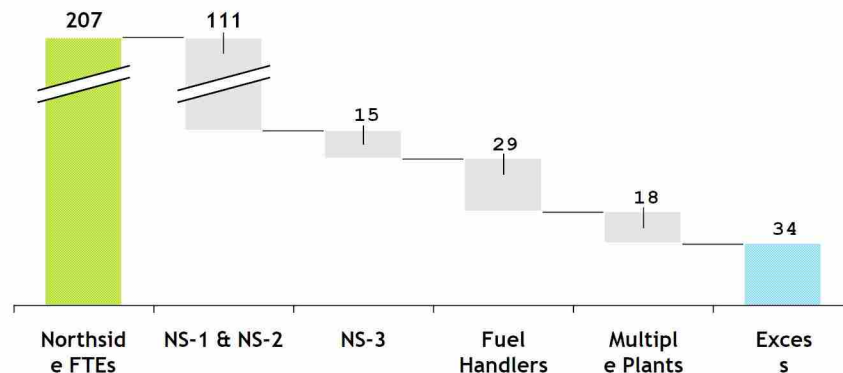
Rationalization of JEA Generation Fleet

JEA Power Plant Units



Reduce Service Levels in Areas that are Overstaffed

Resource Allocation at Northside Generating Station



Note: See subsequent slides for detailed explanation of graphics
Source: JEA Power Plant Unit Outage Data, JEA Overtime Data, SNL, Deloitte Analysis

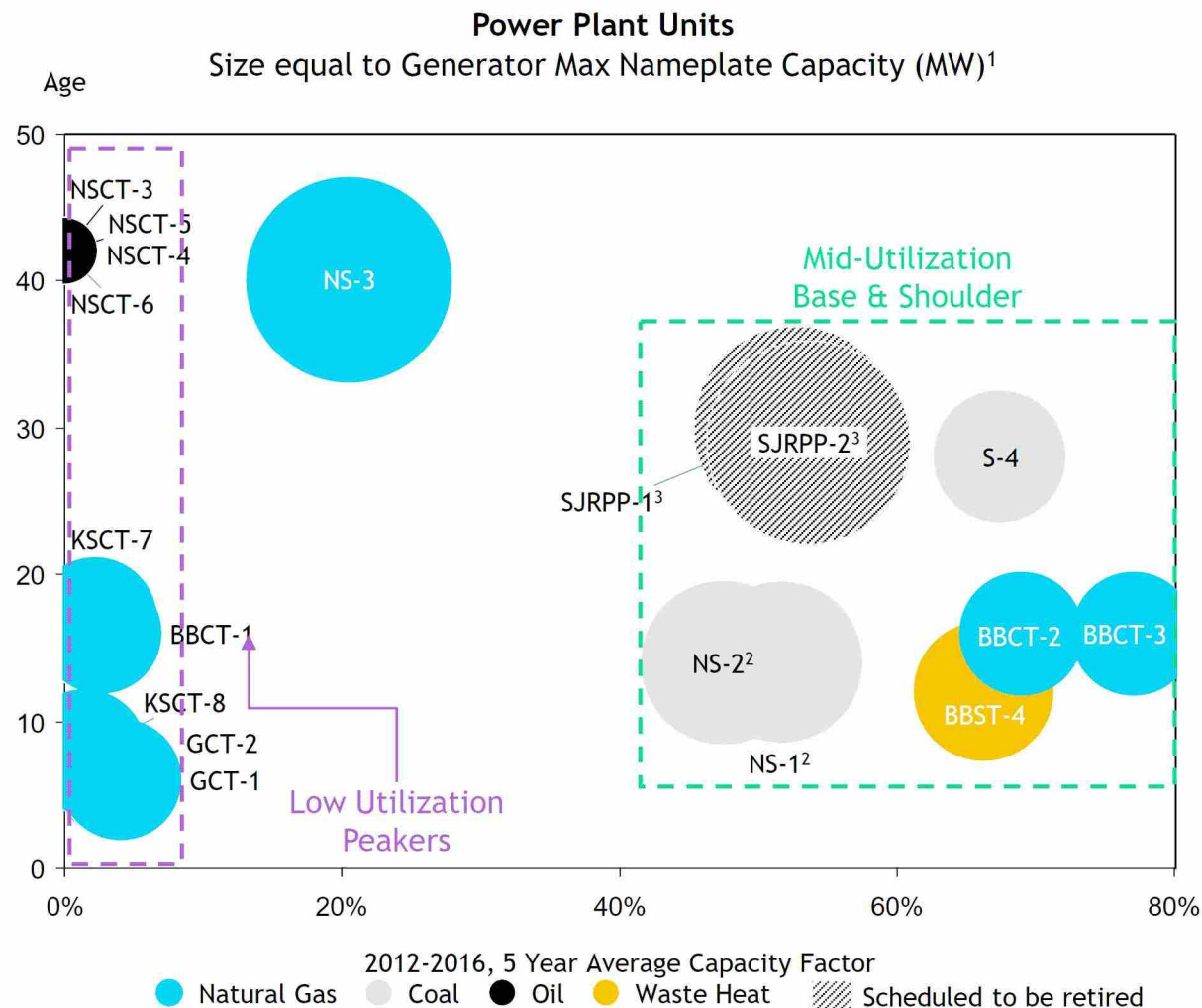


Key Findings and Insights

- JEA has high levels of economic outages, while Florida has excess generating capacity
- The current fleet is organized into low-capacity peakers and mid-capacity shoulder units
- Staffing at NGS is misaligned compare to industry peers
- JEA does not have a single person responsible for managing the relationship with and performance of TEA

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Rationalize Generation Fleet - JEA's Existing Generation Facilities



Takeaways

- Situation: JEA's generation fleet is divided into two groups; low utilization natural gas peaking units and mid-utilization coal/natural gas base & shoulder units
- Availability is important for peaking plants; JEA peaking plants averaged unplanned outages 2% of the time from 2014 through 2016.
- Low economic outages are important for base & shoulder units as they point to an uncompetitive asset
- After the closure of SJRPP, JEA intends to keep NS 3 functional for another 10 years. Replacing output from SJRPP with NS 3 could increase the cost of producing power
- Market trends such as FRCC excess capacity, low cost renewables and slow demand growth indicate that JEA should leverage the impending IRP to examine the full spectrum of fleet ownership scenarios in addition to traditional fuel and GDP scenarios

1. JEA has joint ownership of SJRPP (80%) and Scherer (24%). Nameplate capacities have been adjusted to represent joint ownership

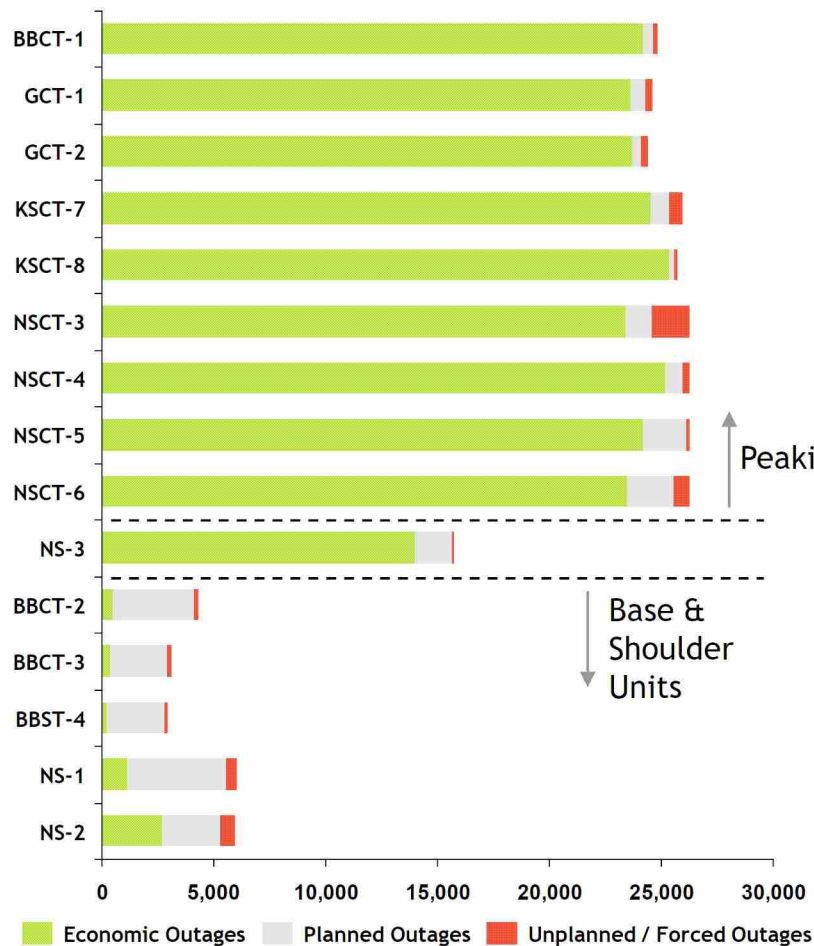
2. NS - 1 & NS - 2 were commissioned in 1962 and 1972, respectively, but repowered and returned in-service in 2003

3. SJRPP to be decommissioned by early 2018

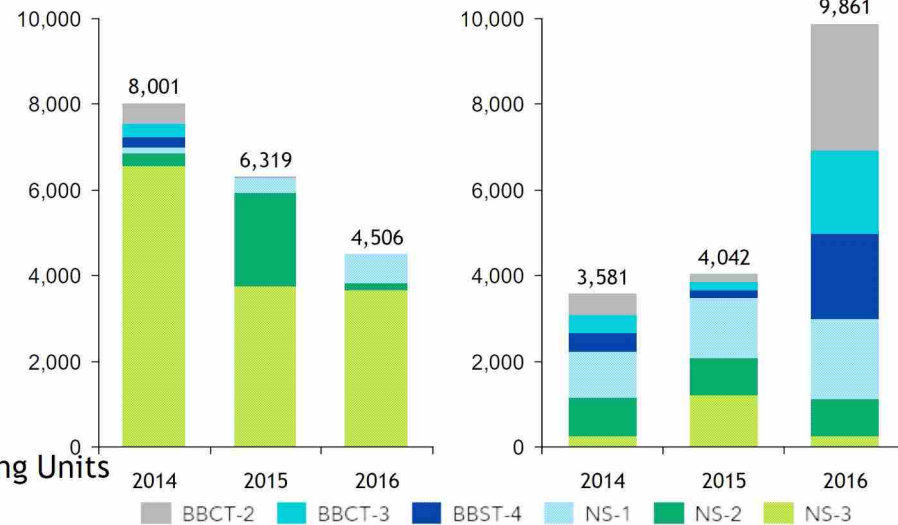
Source: JEA Ten Year Site Plan (April 2017), JEA Power Plant Unit Outage Data, Deloitte Analysis

Rationalize Generation Fleet - Outage Profile of JEA Generation Facilities

Outage Hours from 2014 through 2016
All Units



Outage Hours at Non-Peaking Units by Year
Economic Outages Planned Outages



Key Findings and Insights

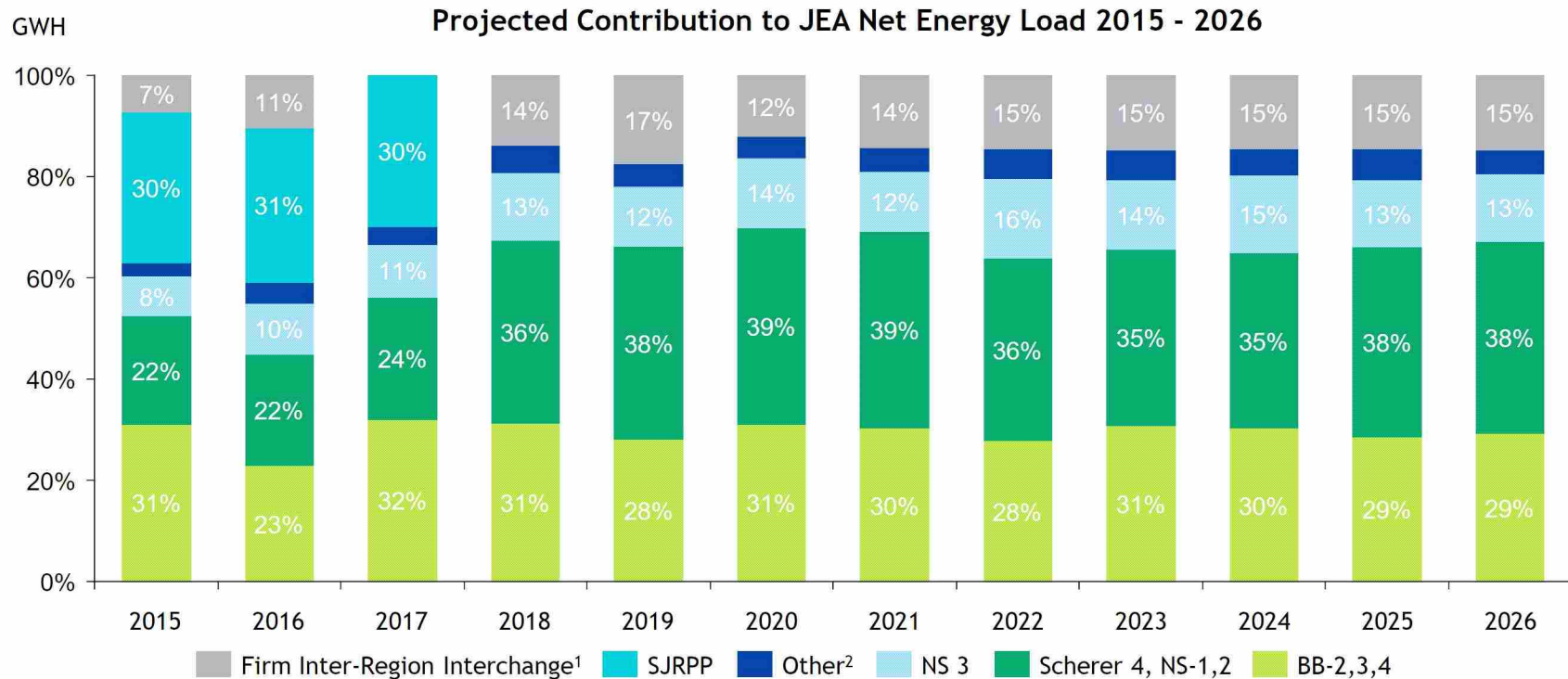
- Economic outages for non-peaking units have decreased since 2014
- NS - 3 contributed to 75% of all economic outages at non-peaking units from 2014 to 2016
- Planned outages for non-peaking units have increased since 2014
- Between 2015 and 2016, planned outages at Brandy Branch increased from 562 to 6,872 hours
- NS - 1 & 2 contributed to 70% of all unplanned / forced outages at non-peaking units from 2014 to 2016

Source: JEA Power Plant Unit Outage Data, Deloitte Analysis



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Rationalize Generation Fleet - Impact of SJRPP Retirement on Generation



Takeaways

- SJRPP is scheduled to retire at the end of 2017 and the majority of lost generation will be compensated for by a combination of:
 - Increased purchased power
 - Increased utilization of Scherer 4, NS 1, and NS 2
- The decision to increase purchased power from Non-JEA generating assets instead of increasing the utilization of existing JEA generating assets illustrates the need to study a wide range of purchased power scenarios during JEA's next IRP

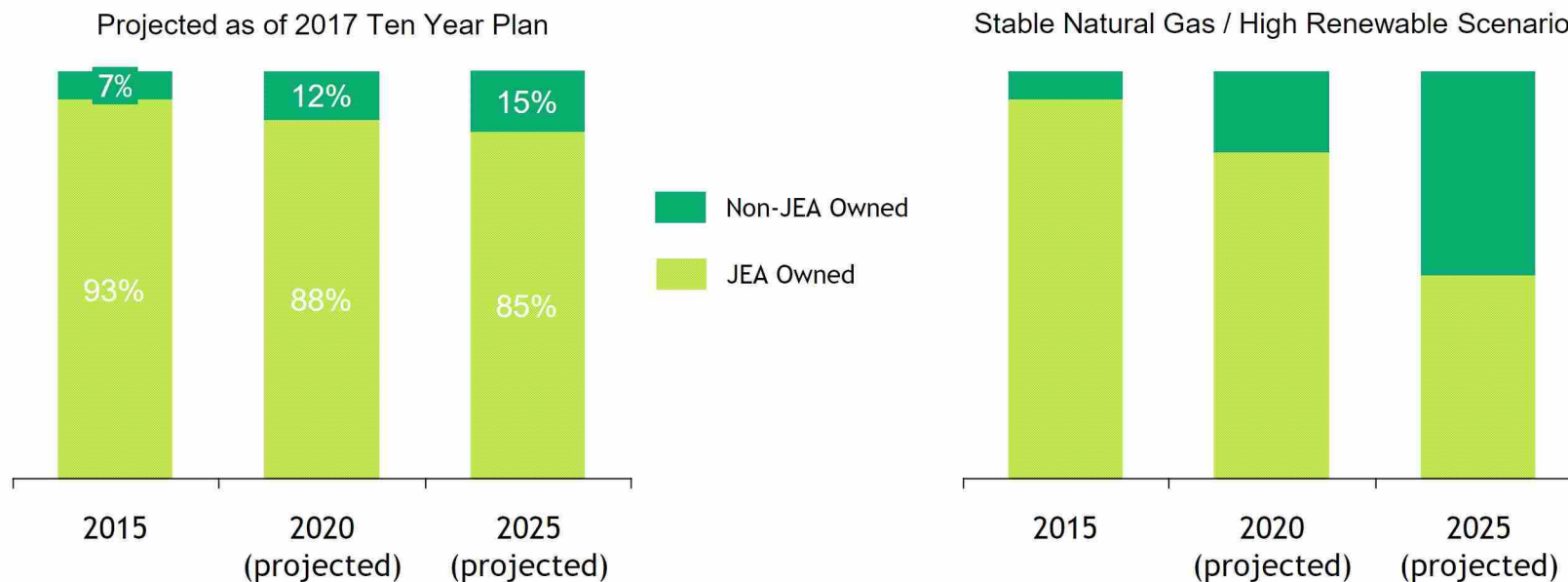
1. "Firm Inter-Region Interchange" includes Seasonal and Year-Round PPAs starting in 2018 and the nuclear PPA from MEAG commencing in 2019

2. "Other" includes renewables and natural gas peaking plants

Source: JEA Ten Year Site Plan (April 2017), SNL, Deloitte Analysis

Rationalize Generation Fleet - Examine Purchased Power Scenarios

Percentage of Power from JEA vs. Non-JEA Owned Generation Assets



Takeaways

- Market trends that could significantly impact the percentage of power coming from traditional JEA generating assets:
 - Continued cost reductions in distributed energy assets (e.g. distributed solar and energy efficiency)
 - Sustained low and stable natural gas prices
 - Development of nuclear power plants in Southeast
 - Expansion of (or joining) a larger 'power pool' relationship with regional utilities
 - In the long-term, the potential formation of an ISO / RTO within Florida

Recommendation

- Examine the full spectrum of fleet ownership scenarios during upcoming IRP

Savings

- Savings associated with IRP are unknown but early retirement of existing assets would free up O&M dollars (e.g. early NS-3 retirement = \$18M annually)

Source: JEA Ten Year Site Plan (April 2017), SNL, Deloitte Analysis



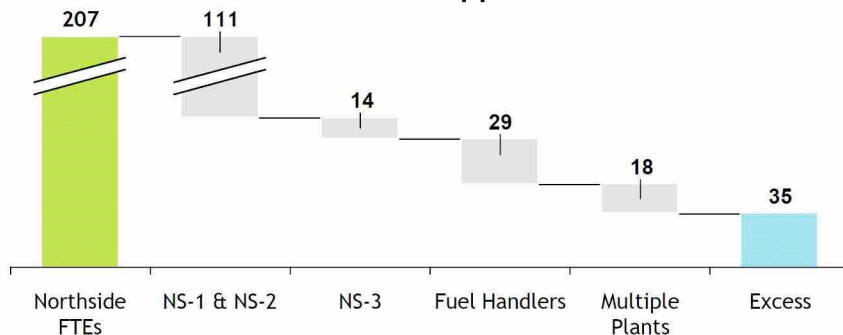
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Staff Rationalization at Northside Generating Station

Resource Allocation at Northside Generating Station Compared to Leading Practice Ratios

Function	Actuals	Leading Practice Ratios ¹		Applying Leading Practice Ratios	
	Employees	Per 1000 MW (Coal)	Per 1000 MW (Gas)	Northside 1 & 2 (700 MW)	Northside 3 (564 MW)
Plants - Operation	38			42	7
Plants - Maintenance	63			43	4
Plants - Fuel Handling	35			6	0
Engineering and Support	19			8	1
Central Maintenance	7			6	0
Other	45			6	2
Total JEA NGS Employees	207	Total Applying Leading Practice Ratios		111	14
Allocation for Additional Material Handlers				29	
Allocation of NGS Employees Working at Multiple Plants				18	
Total Applying Leading Practice Ratios & Allocations				172	
JEA NGS Headcount in Excess of Leading Practices				35	

Potential Resource Opportunities at NGS



Takeaways

- Applying leading practice staffing ratios, as well as, making adjustments to fuel handling (due to coal FBC technology) and shared resources, NGS appears to be over resourced by 35 FTEs
- Functions with the most overstaffing includes Mechanical, Electric, and Instrument & Control Technicians

Recommendation

- *Realign resource levels and workload at NGS, while making allocations for unique aspects of NGS operation, to match industry best practices*

Source: JEA FTE List, Deloitte Analysis



Savings

- \$3.3M, using \$94K average annual total compensation of a NGS technician

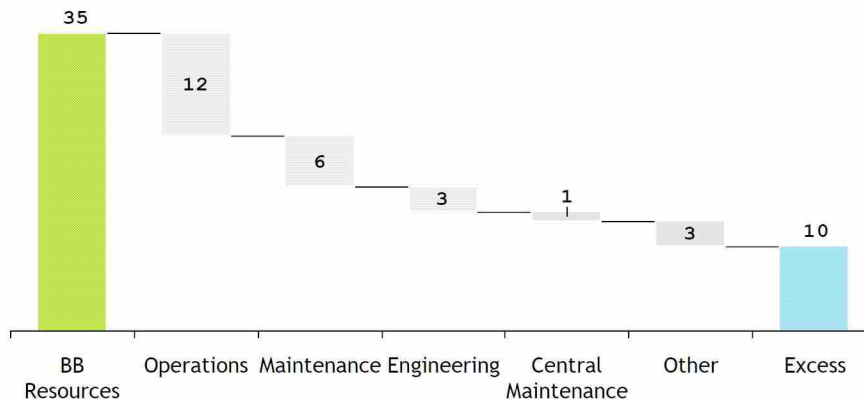
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Staff Rationalization at Brandy Branch

Resource Allocation at Brandy Branch Generating Station Compared to Leading Practice Ratios

Function	Actuals	Leading Practice Ratios ¹	Applying Leading Practice Ratios
	Resources	Per 1000 MW (Gas)	Brandy Branch 1,2,3 & 4 (880 MW)
Plants - Operation	16		12
Plants - Maintenance	8		6
Plants - Fuel Handling	0		0
Engineering and Support	5		3
Central Maintenance	1		1
Other	5		3
Total JEA BB Resources	35	Total Applying Leading Practice Ratios	25
JEA BB Resources in Excess of Leading Practices			10

Potential Resource Opportunities at Brandy Branch



Takeaways

- A 30% staff reduction (~10 FTE) would align Brandy Branch with leading practice
- Excess staff appear to be concentrated in Power Plant/Unit Operations and Operations Engineering

Recommendation

- *Realign resource levels and workload at Brandy Branch to match industry best practices*

Source: JEA FTE Data, Deloitte Analysis



Savings

- \$950K, using \$95K average annual total compensation of a BB plant/unit operator






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Relationship with TEA - Current State Assessment

Current State

- JEA currently utilizes portfolio management, bilateral energy trading, natural gas management and advisory services
- JEA manages the relationship with TEA via Paul McElroy, Paul Cosgrove, Steven McNall, and Tim Hunt
- TEA's comparatively flexible employment model can provide a mechanism to access talent
- Mike Trobaugh is TEA's JEA client service manager. A similar position does not exist at JEA.

Services Offered by TEA

	Portfolio Management	✓		Bilateral Energy Trading	✓
	RTO Market Management & Trading			Power Supply Management	
	Natural Gas Management	✓		Advisory Services	✓

✓ = service utilized by JEA

Recommendation

- Assign relationship responsibility for all of JEA to one director/ manager and task employee with increasing the value JEA receives from TEA

Savings

- Soft dollar savings associated with better utilizing TEA's service offerings

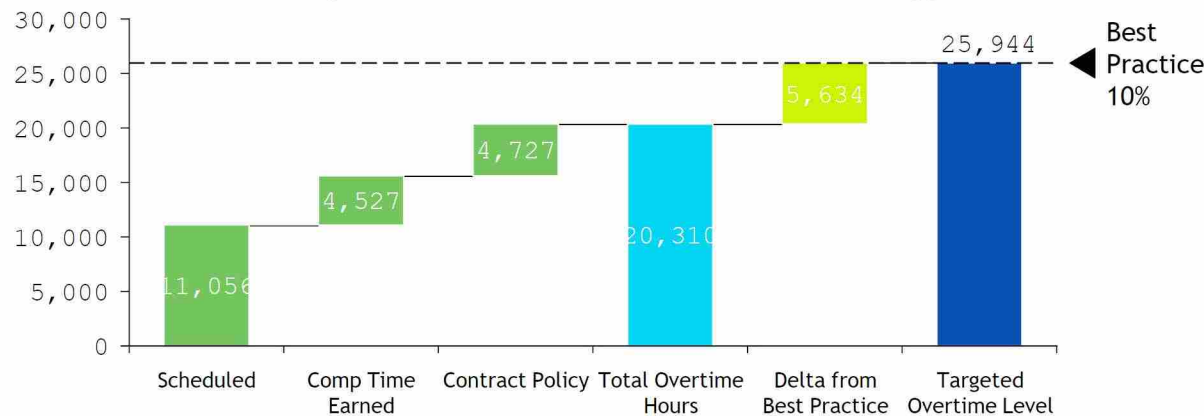
Source: TEA, Deloitte Analysis



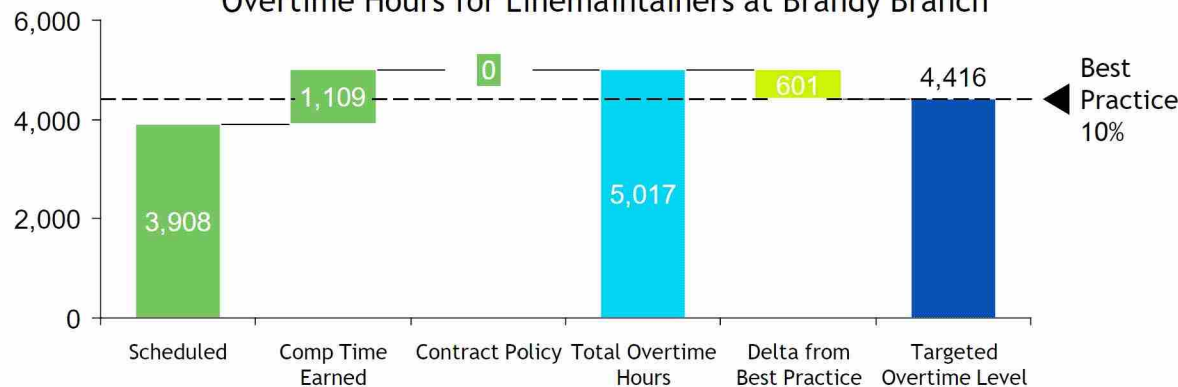
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Overtime Hours - At Targeted Overtime Level at NGS & Brandy Branch

Managing 2016 Overtime Hours to Industry Best Practices
Overtime Hours for Linemaintainers at NGS



Overtime Hours for Linemaintainers at Brandy Branch



Takeaways

- Overtime hours at NGS exceed best practice by 5,634 hours
- Overtime hours at Brandy Branch exceed best practices by 601 hours
- Overall, planned overtime hours at NGS and BB are in line with industry best practices for current staffing levels

Recommendation

- *Do not target for improvement as overtime hours are in line with best practices*

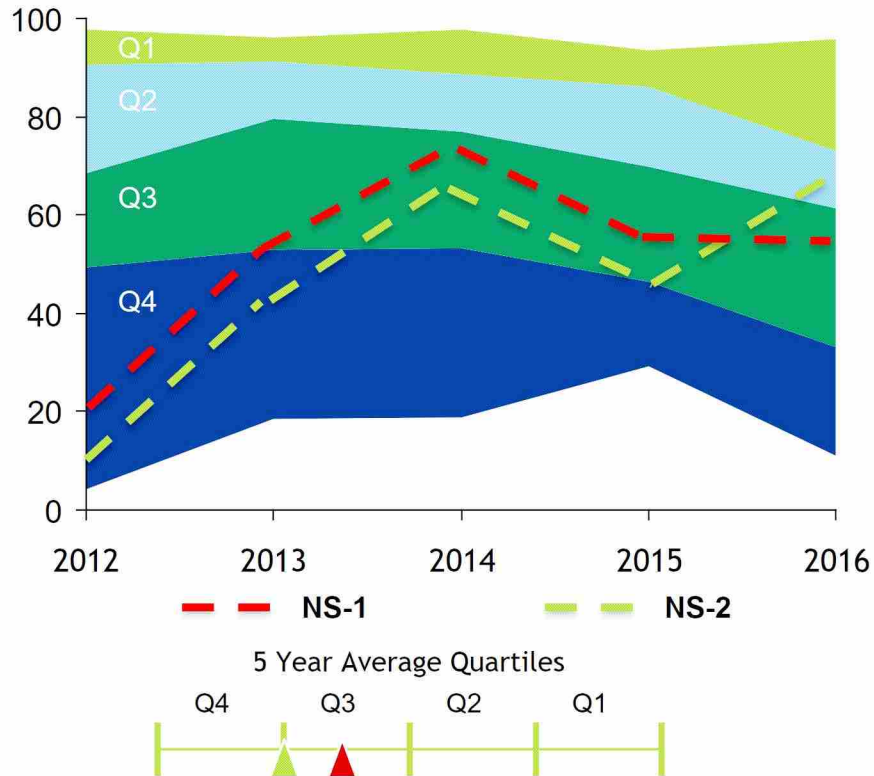
Savings

- *No savings from aligning overtime*

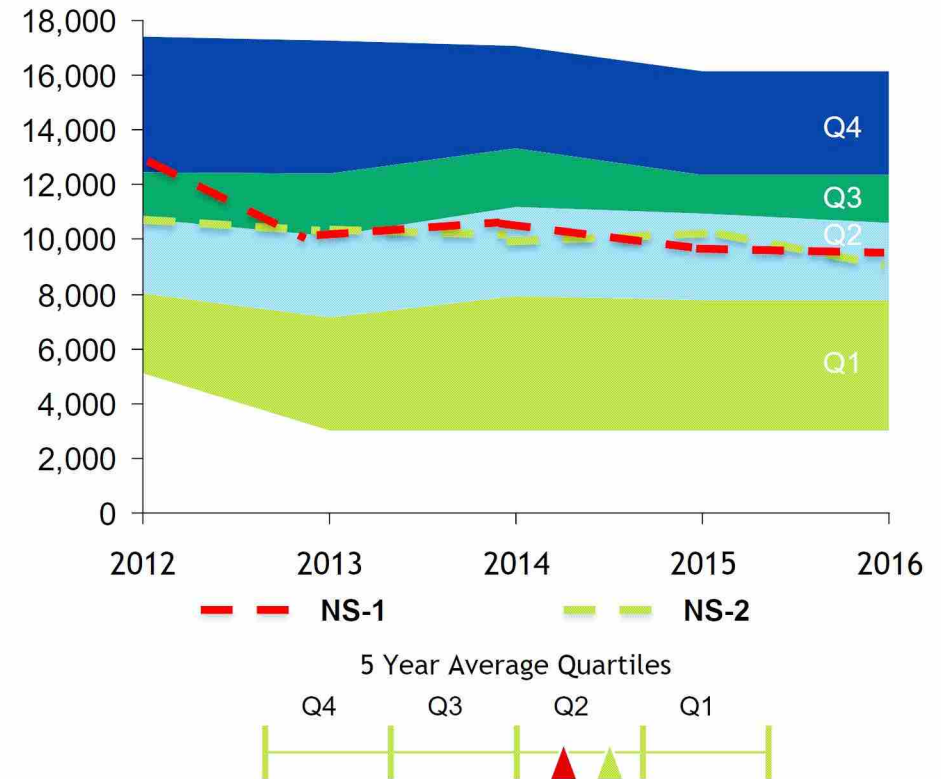
Notes: Overtime hours are calculated as the sum of Scheduled, Comp Time Earned, and Contract Policy. Emergency and Holiday overtime hours are not included. Hours worked during "storm" periods, defined as when Florida is under a State of Emergency, are also not included.
Source: JEA Overtime Data, JEA FTE Data, Deloitte Analysis

Rationalize Generation Fleet - Northside 1 & 2 Fluidized Bed Combustion

Capacity Factor (%), Quartiles 2012 – 2016¹



Heat Rate (Btu/kWh), Quartiles 2012 – 2016¹



Takeaways

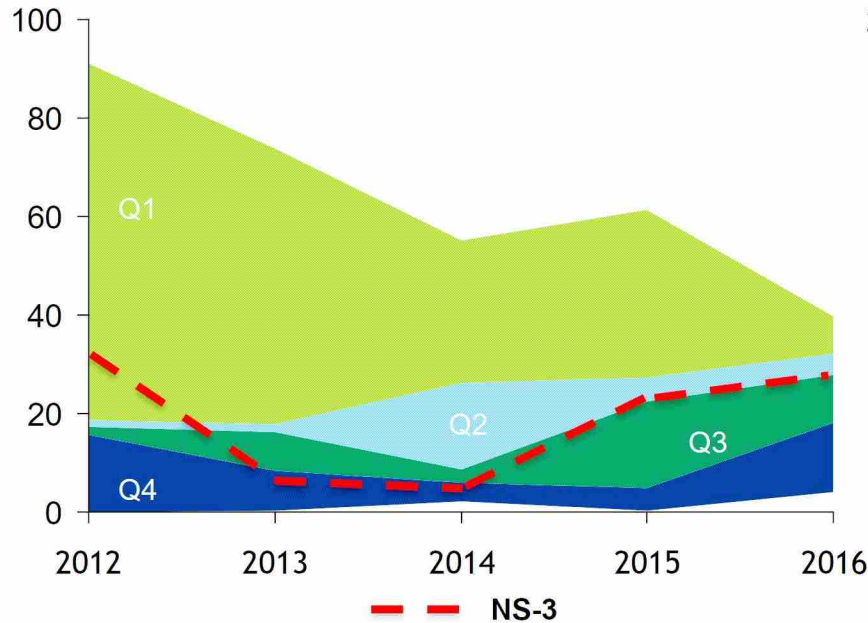
- Capacity factors for NS - 1 & 2 have been trending higher over the past 5 years and are in Q3 compared to a nationwide coal fluidized bed power plant peer group

- Heat rates for NS - 1 & 2 have remained consistent over the past 5 years and are in Q2 compared to a nationwide coal fluidized bed power plant peer group

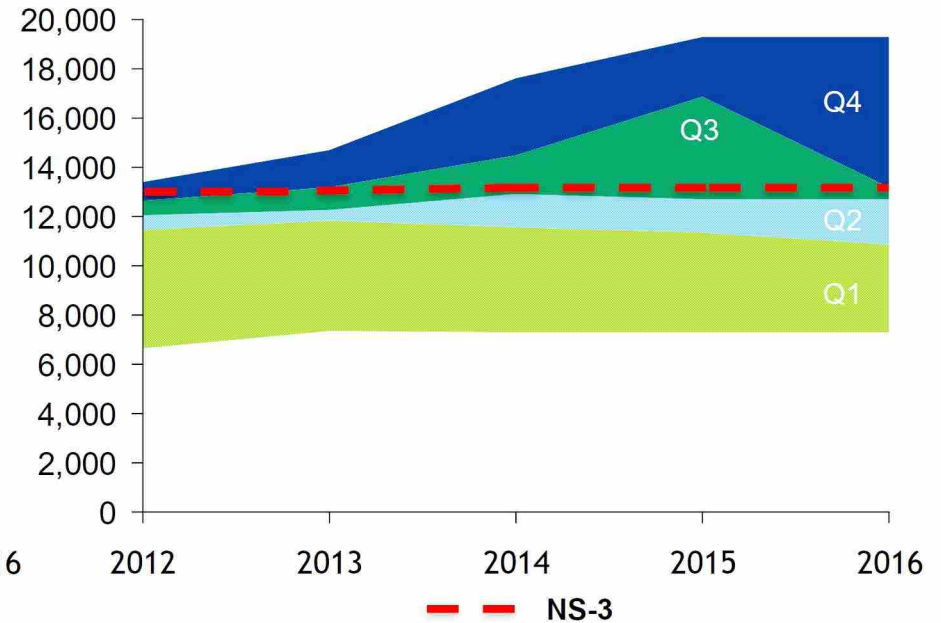
1. NS - 1 & NS - 2 are being compared to all other 59 coal fluidized bed power plant units in the United States
Source: SNL, FERC, Deloitte Analysis

Rationalize Generation Fleet - Northside 3 Natural Gas Steam Turbine

Capacity Factor (%), Quartiles 2012 – 2016¹



Heat Rate (Btu/kWh), Quartiles 2012 – 2016¹



Takeaways

- Capacity factors for NS - 3 have ranged from 36% (Q1) to 8% (Q4) between 2012 to 2016 and have been trending positively since 2014²

- Heat rates for NS - 3 have remained consistent over the past 5 years and are in Q3 compared to a Florida peer group of natural gas steam turbine power plant units

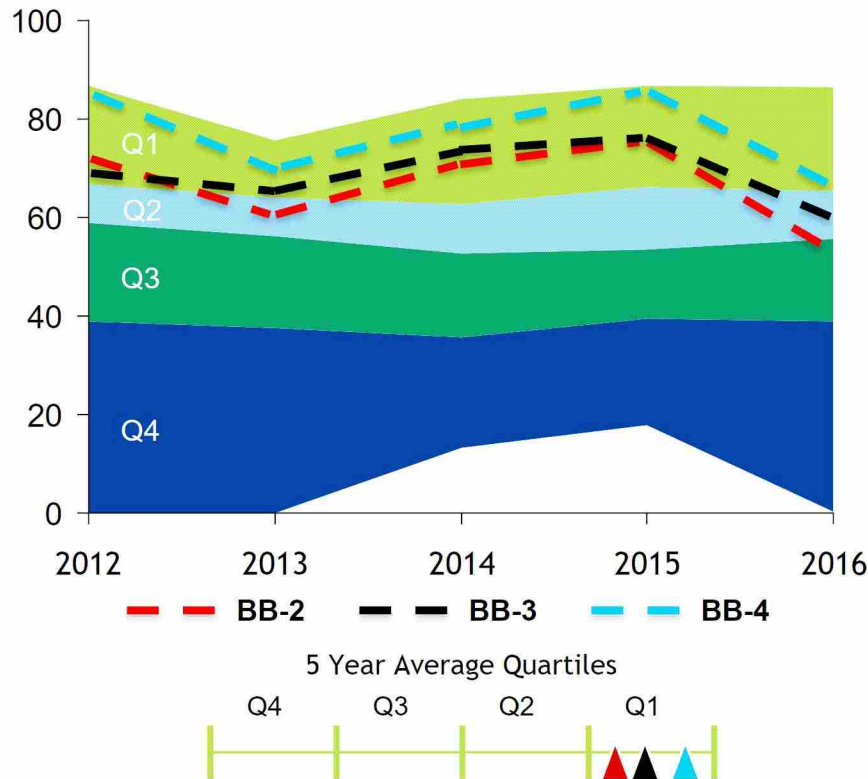
1. NS - 3 is being compared to all other 9 natural gas steam turbine power plant units in Florida

2. NS - 3 capacity factor is 24% from January 2017 through April 2017, equal to the four month period in 2016.

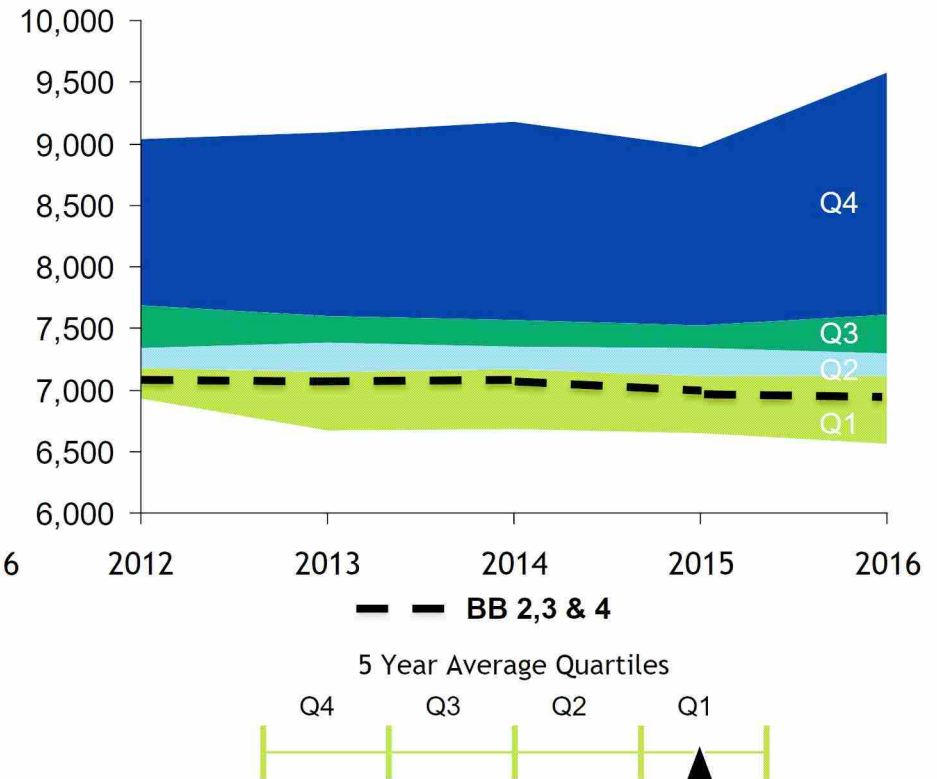
Source: SNL, FERC, Deloitte Analysis

Rationalize Generation Fleet - Brandy Branch 2, 3 & 4 Natural Gas Combined Cycle

Capacity Factor (%), Quartiles 2012 – 2016¹



Heat Rate (Btu/kWh), Quartiles 2012 – 2016¹



Takeaways

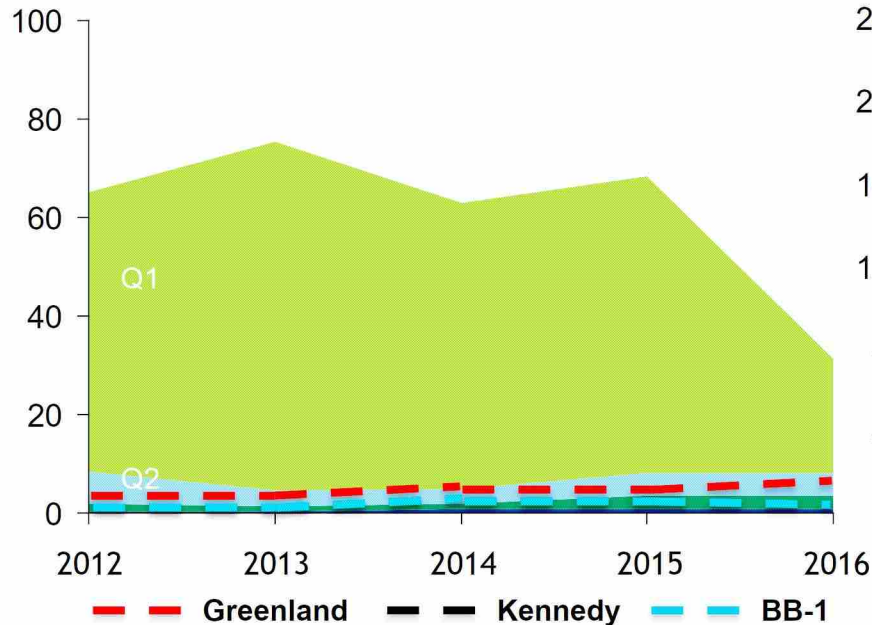
- Capacity factors for BB - 2, 3 & 4 have averaged Q1 performance over the past 5 years compared to a Florida peer group of natural gas combined cycle power plant units

- Heat rates for BB - 2, 3 & 4 have remained consistent over the past 5 years and are in Q1 compared to a Florida peer group of natural gas combined cycle power plant units

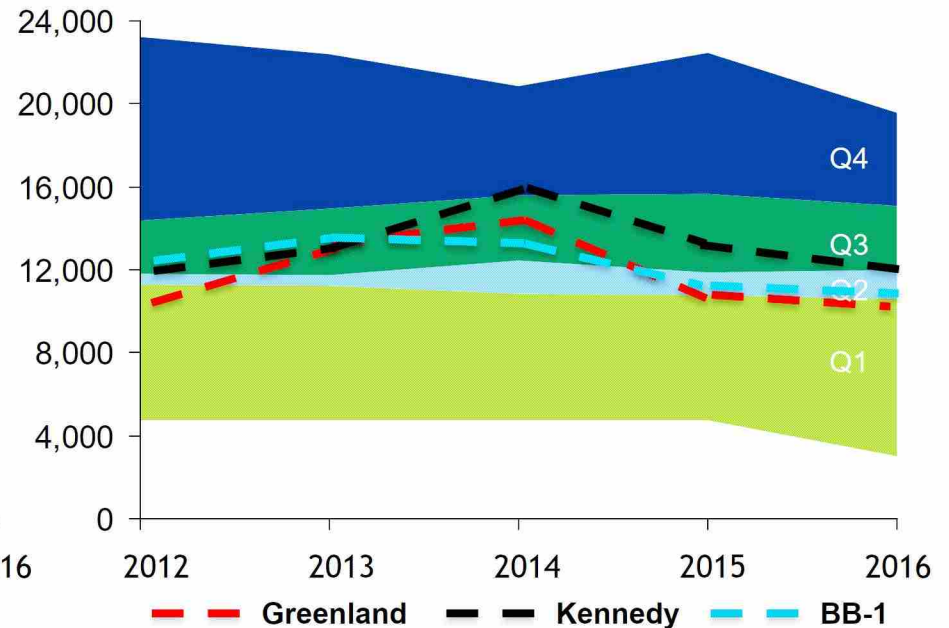
1. BB - 2, BB - 3 & BB - 4 are being compared to all other 179 natural gas combined cycle power plant units in Florida
Source: SNL, FERC, Deloitte Analysis

Rationalize Generation Fleet - Greenland, Kennedy & Brandy Branch 1 Combustion Gas Turbine

Capacity Factor (%), Quartiles 2012 – 2016¹



Heat Rate (Btu/kWh), Quartiles 2012 – 2016¹



Takeaways

- A few natural gas turbine power plant units operate at higher capacity factors (resulting in a large range within Q1), but the majority of units operate at capacity factors under 10%

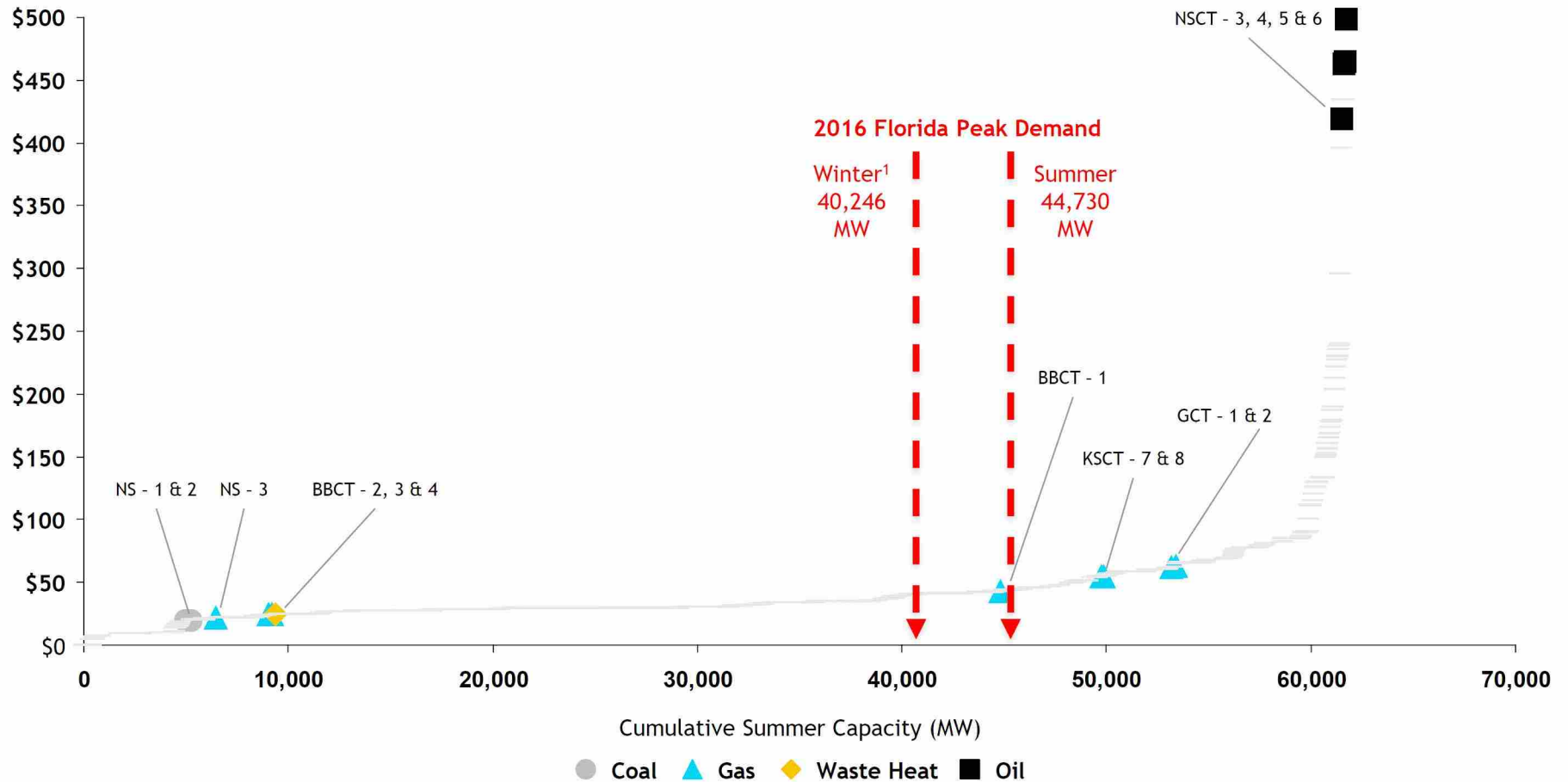
- Heat rates for Greenland, Kennedy and BB - 1 have fluctuated over the past 5 years, but have averaged Q3 performance compared to a Florida peer group of natural gas turbine power plant units

1. Greenland, Kennedy, and BB - 1 are compared to all other 105 natural gas turbine power plant units in Florida. Each of Greenland and Kennedy's 2 power plant units are shown as a single power plant.
Source: SNL, FERC, Deloitte Analysis

Rationalize Generation Fleet - FRCC Generation Supply Curve

2016 FRCC Generation Supply Curve

2016 Variable O&M
(\$/MWh)



Notes: JEA's ownership of Scherer 4 is not included since the power plant is located in Georgia. SJRPP has been excluded.

1. Winter Peak Demand is for the 2015/2016 winter season

Source: SNL, FERC, Deloitte Analysis



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APPENDIX

Energy Supply - Opportunity Summary




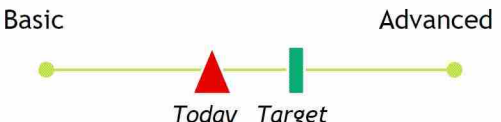

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Leverage IRP to develop generation ownership plan	<ul style="list-style-type: none"> Study current operations of JEA's power fleet and trends impacting the FRCC market Examine several different scenarios beyond traditional fuel pricing/ penetration and economic growth forecasts such as: <ul style="list-style-type: none"> Spectrum of ownership levels Expansion of GRU 'power pool' Distributed energy resources Determine metrics or indicators to monitor that would indicate the need to consider changes to generation portfolio 	↓ Identified metrics/ indicators reduce analyses by planners - possibly ask TEA to perform to further reduce demand	↔ Maintain current service levels key given pace of change	↓ Intent is to reduce cost of supplied power	↕ Changes to generation fleet could spur political attention	↑ Focus on cost efficient supply mix is a customer-first approach	↕ Communications to employees important to prepare for potential outcomes	\$0.00	\$18.00 <i>Non-fuel O&M savings</i>
Realign resource levels and workload	<ul style="list-style-type: none"> Apply leading industry staffing ratios and examine potential overstaffing in mechanical, electric, and instrument & control technicians Examine potential excess work being performed by the fuels procurement and commodity risk management functions 	↔ Same amount of total work is being performed to keep plants operating	↓ Increase efficiency	↓ Reducing the cost of operations	↓ Reductions could trigger concern	↑ Reduction in cost of service	↓ Negative employment impact for some employees	\$4.25	\$4.25
Assign a TEA relationship manager within JEA	<ul style="list-style-type: none"> Assign relationship responsibility for all of JEA to one director/ manager and task employee with increasing the value JEA receives from TEA Consider leveraging TEA for staffing niche/ specialized talent that may be difficult to recruit within JEA - especially if costs can be defrayed with other TEA members 	↓ Less work is being performed by JEA	↑ Only leverage TEA when service to JEA is increased	↔ JEA's TEA fees not based on number of services used; arranging resources there will add cost		↑ Improvement in services offered to customers over time	↓ Negative employment impact for some employees	Soft dollar savings associated with better utilizing TEA's service offerings	

Note: See subsequent slides for detailed explanation
Source: Deloitte Analysis



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Electric Delivery

Assessment	Alignment	Situation
<p>Capability Alignment with Utility 2.0</p> 	<p>Demand Levels</p> 	<ul style="list-style-type: none"> • Inconsistent data for assets, inventory, and work orders limits crew efficiency and asset maintenance improvement opportunities • Antiquated field technology • Accurate operational reports do not exist; low-quality reporting deters productivity and obscures areas for improvement • Linemaintainer overtime hours account for 17% of “normal time” hours² • Large service footprint and drive times present opportunities to increase crew efficiency • Low service levels due to lack of data entry standards with fieldforce technology needed to manage work and asset management performance • Crew sizing, overtime and other factors drive cost per line mile - with improved work data these can be addressed
<p>Comparative Metrics</p> <p>Total O&M (\$) / Distribution Line Miles¹</p> 	<p>Service Levels</p> 	
	<p>Cost Levels</p> 	

¹ Comparative metrics against all US distribution utilities with greater than \$100,000 in O&M

² Overtime hours as a percentage of “normal time” hours do not include storm periods (when a State of Emergency was declared) and account for 4 weeks of annual employee vacation

Source: SNL, Deloitte Analysis, JEA overtime data, JEA organizational charts

Energy Delivery - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Improve service center footprint and dispatch locations	\$0.73	\$1.16
Perform asset management (EAM) and work order (WMS) audit to identify gaps in EAM and WMS and improve their collective use		
Simplify and empower employees to participate in EAM/WMS		
Reduce overtime hours	\$1.00	\$1.00
Total Savings	\$1.73	\$2.16

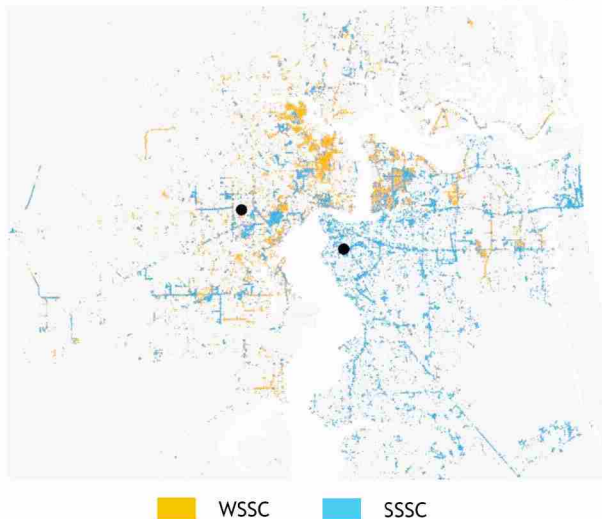
Note: See detailed opportunity summary in the appendix



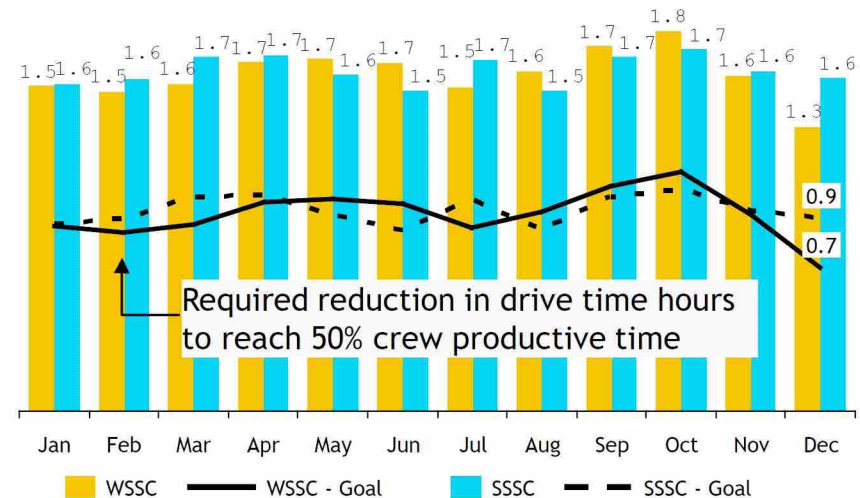
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Energy Delivery- Findings and Insights

Improve Service Center Footprint & Dispatch Linemaintainers at SSSC and WSSC Overlapping Territory

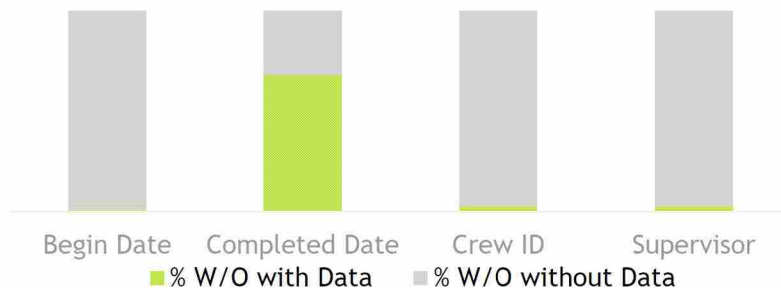


Improve Service Center Footprint & Dispatch Drive Time Estimates (Hours), Non-Emergent



Perform EAM & WMS Audit

Work Order Data for Overhead & Underground Groups Maximo & FMS Data: 10/1/2015 to 6/23/2017



Note: See subsequent slides for detailed explanation of graphics
Source: JEA Start/Stop GPS Data, JEA Work Order Data, Deloitte Analysis



Key Findings and Insights

- Line maintainers at Westside and Southside service centers work within each other's service center territories increasing total drive time and reducing crew productivity
- Population growth at the edge of JEA's service territory is resulting in more demand on service centers and increased drive times for crews
- There are gaps in EAM and WMS data entry and performance reporting

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Improve Service Center Footprint & Dispatch - Average Work Day

Time	Description
6:00 to 6:45 am	Get Assignment, load up trucks, leave service center
6:45 to 7:35 am	Drive to Site
7:35 to 7:50 am	Safety Brief
7:50 to 8:10 am	Job Site Setup
8:10 to 10:50 am	Working on Job (2 hours and 40 minutes)
10:50 to 11:00 am	Tear Down Job Site
11:00 to 12:00 pm	Lunch
12:00 to 12:20 pm	Job Site Setup
12:20 to 1:30 pm	Working on Job (1 hour and 10 minutes)
1:30 to 1:40 pm	Tear Down Job Site
1:40 to 2:20 pm	Drive to Service Center
2:30 to 3:00 pm	Arrive back at service center, paperwork, daily breaks

Crews are working on a work order for approximately 43% of their 9 hour shift. Decreasing drive time by 40 minutes per day would increase productive time to 50%.

Source: Conversation at Westside Service Center

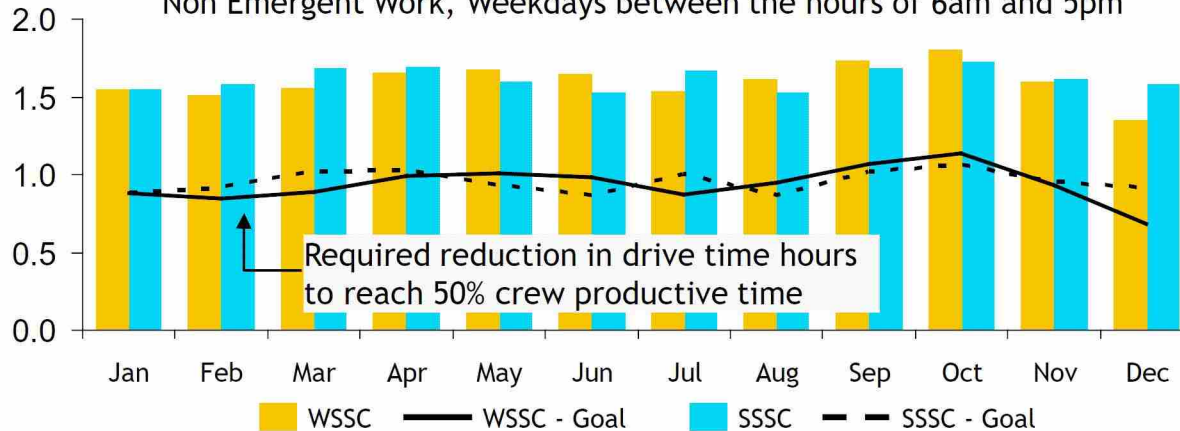


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Improve Service Center Footprint & Dispatch - Drive Time and Miles

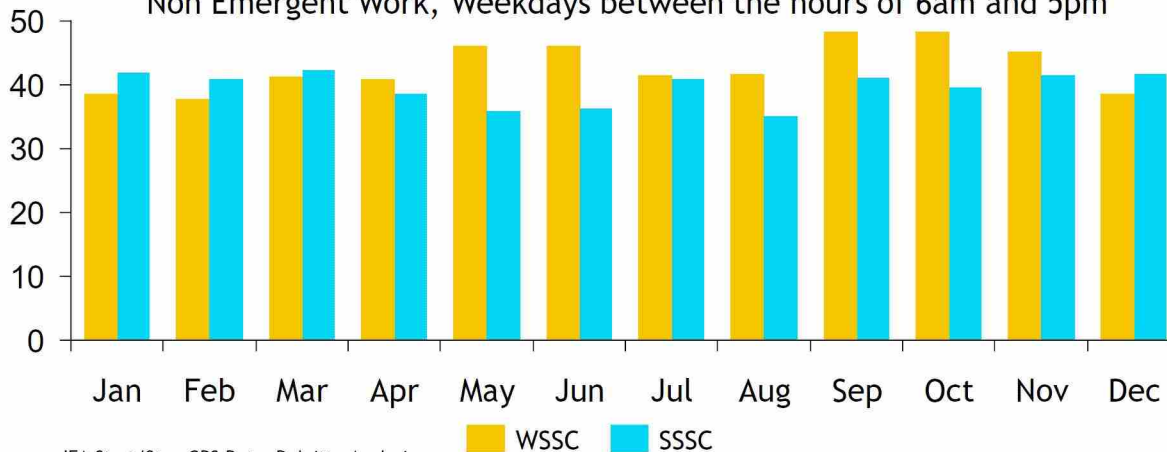
2016 Drive Time Estimates Per Vehicle By Month (Hours)

Non Emergent Work, Weekdays between the hours of 6am and 5pm



2016 Mileage Estimates Per Vehicle By Month (Hours)

Non Emergent Work, Weekdays between the hours of 6am and 5pm



Takeaways

- Drive time and miles per vehicle are relatively similar between WSSC and SSSC, as well as, consistent throughout the year
- The average annual drive time for weekday non-emergent work is approximately 1 hour and 40 minutes for both WSSC and SSSC
- Average weekday non-emergent drive time needs to decrease to 56 minutes per day to reach 50% crew productive time
- Peak 2016 drive times and miles driven occurred in October due to Hurricane Matthew

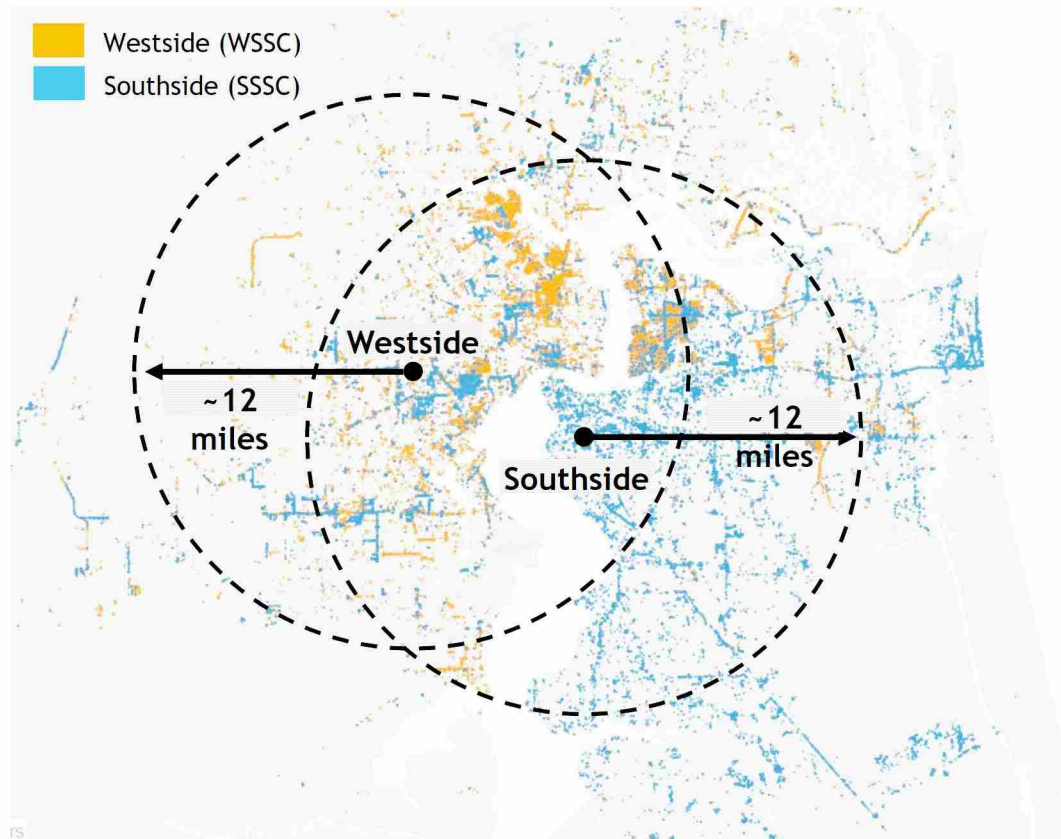
Source: JEA Start/Stop GPS Data, Deloitte Analysis



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Improve Service Center Footprint & Dispatch - Service Center Locations

Vehicle Start / Stop Coordinates for Linemaintainers Conducting Planned Work in 2016



Takeaways

- Increasing crew productive time to 50% requires decreasing drive time to just under 1 hour per day
- Within 1 hour per day, the average crew can drive approximately 24 miles
- A 12 mile radius drawn from WSSC and SSSC approximates how many journeys crews are taking well beyond the “50% productive time boundary”
- A higher percentage of SSSC works orders take them outside the “50% productive time boundary”

Recommendation

- Study option to move or open additional service or dispatch centers to the southeast to reduce drive time and increase crew productivity

Note: 12 mile driving radius is calculated using an average vehicle speed of 24 mph
Source: JEA Start/Stop GPS Data, Deloitte Analysis



Savings

- Decreasing daily drive time to 1 hour would increase crew productivity by 16%

DRAFT

Performing EAM & WMS Audit and Implementing Solutions

Current State - Electric

EAM

- Data on assets (e.g. type, location, age) is inconsistently reliable, limiting the productivity of crews and ability to perform preventive maintenance
- Opportunities to track and understand assets at the beginning of the EAM process are not taken advantage of or enforced (e.g., scanners, and automatic re-ordering of supplies)
- Crews, contractors, and inspectors have limited ability to digitally record standardized asset data on-site reducing the amount and quality of data captured

WMS

- Accurate operational reports (e.g. work order variance reports, productive time tracking) do not exist, resulting in an inability to accurately track performance
- For example, Maximo & FMS Data for WSSC from 10/1/2015 to 6/23/2017:
 - 68% of work orders have a Work Completed date and 1% have a Work Begins date
 - 3% of work orders have an assigned Supervisor and Crew ID

Future State - Electric, Water and Wastewater

Improved data integrity, requirements understood up front

- The Golden Record
- Assets are tracked from procurement to end use
- Maintenance optimizes assets
- Technology enables participation by JEA crews, inspectors and contractors

Requirements communicated and gaps identified

- Accurately measure and improve performance reporting
- Barriers to efficiency are identified by work order type, service center and crews
- Technology enables detailed data collection using sensors and IOT devices (e.g. vehicles, field equipment)

Recommendations

- *Collect data requirements from EAM*
- *Identify work order data requirements from E/W/WW leadership to manage crew performance*
- *Map current asset and work order processes from work order creation to work order close*
- *Identify gaps in data collection/process and develop a plan to mitigate*

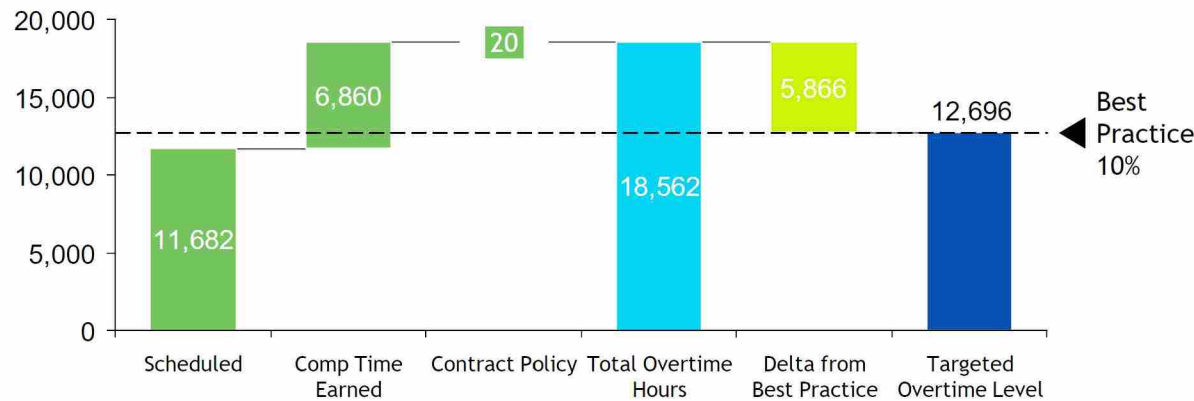
Source: Conversations with E/W/WW Employees, JEA Work Order Data, Deloitte Analysis



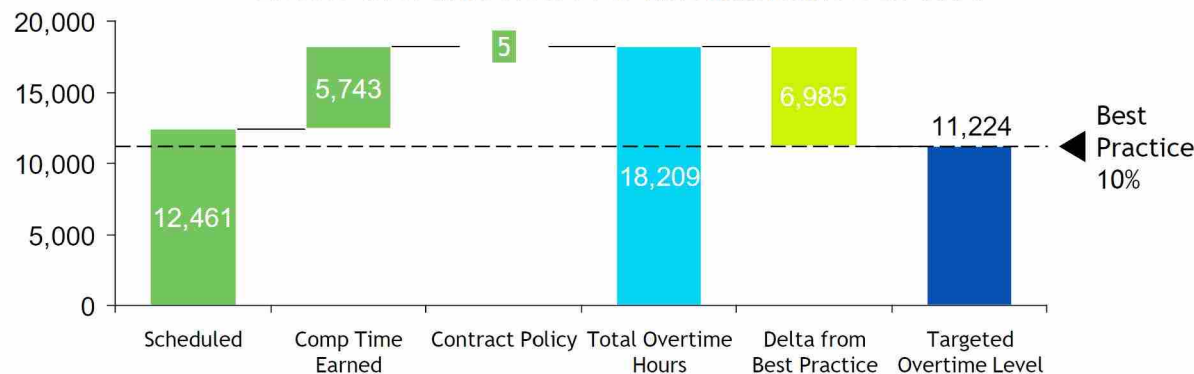
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Reduce Overtime Hours - Excess Planned Overtime at Service Centers

Managing 2016 Overtime Hours to Industry Best Practices
Excess Overtime Hours for Linemaintainers at WSSC



Excess Overtime Hours for Linemaintainers at SSSC



Takeaways

- Linemaintainers at WSSC and SSC both exceed industry best practices for planned overtime hours
- WSSC exceeds best practice by 5%, corresponding to approximately \$450,000 in overtime pay
- SSSC exceeds best practice by 6%, corresponding to approximately \$550,000 in overtime pay

Recommendation

- *Incentivize managers to reduce overtime hours to meet industry best practices*

Savings

- *\$1M in savings from aligning overtime hours to industry best practices*

Notes: Overtime hours are calculated as the sum of Scheduled, Comp Time Earned, and Contract Policy. Emergency and Holiday overtime hours are not included. Hours worked during "storm" periods, defined as when Florida is under a State of Emergency, are also not included. 66% of overtime hours are assumed to be paid at x1.5 total hourly compensation and 33% paid at x2 total hourly compensation. Source: JEA Overtime Data, JEA FTE Data, Deloitte Analysis

Appendix

Energy Delivery - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Improve service center footprint and dispatch locations	<ul style="list-style-type: none"> Study current overlap in service footprints for WSSC and SSSC linemaintainers conducting non-emergency, scheduled work Examine combining E/W/WW service centers to optimize real estate expense and limit burdens on supply 	↓ Amount of non-productive demands on crews decrease	↑ Crews are able to accomplish more work orders in a given year	↑ Increase in short-term costs associated with expanded footprint		↑ Decreased drive time reduces JEA response times	↑ Decreased drive time likely to improve morale	\$0.73 Decreasing daily drive time to 1 hour 15 minutes	\$1.16 Decreasing daily drive time to 1 hour
Perform asset management (EAM) and work order (WMS) audit to identify gaps in EAM and WMS and improve their collective use	<ul style="list-style-type: none"> Collect data requirements from EAM Identify work order data requirements from E/W/WW leadership to manage crew performance Map current asset and work order processes from work order creation to work order close Identify gaps in data collection and process Develop a plan to mitigate 	↓ More efficient scheduling of crews reduces excess work	↑ Better manage productivity of crews	↓ Initial investment in work order audit improves crew efficiency		↑ More accurate cost and time estimates for customers	↑ Assuming change is managed, crews should experience fewer barriers to productivity		
Simplify and empower employees to participate in EAM/WMS	<ul style="list-style-type: none"> Leverage output from asset management and work order audit to identify near-, mid- and far-term field force solutions to improve asset and work order data quality Submit recommendations for approval accounting for E/W/WW fieldforce needs 	↓ Fieldforce technology simplifies data entry process making less work	↑ Increase data quality and improve decision making across JEA	↓ Initial investment in technology produces cost savings			↑ Crews are requesting these solutions today - morale increase		
Reduce overtime hours	<ul style="list-style-type: none"> Establish performance metrics for managers to reduce overtime hours to meet industry best practices (10% of standard time") 	↓ Fewer work orders assigned	↓ Work backlog may increase	↓ Total cost for operations reduced		↓ Backlog increase may affect customers	↓ Reduction in total employee pay	\$1.00	\$1.00

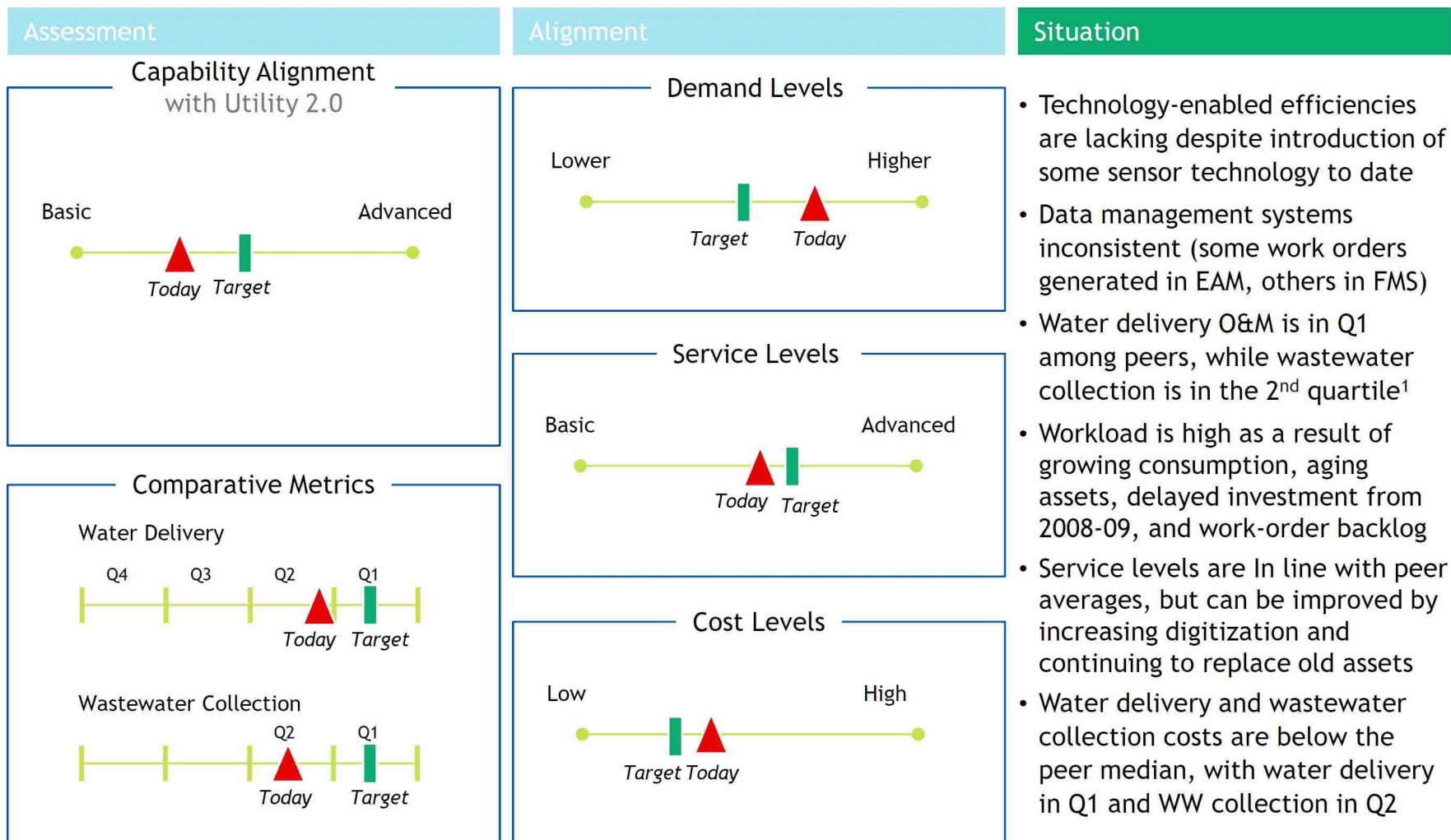
Note: See subsequent slides for detailed explanation
Source: Deloitte Analysis



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Water/Wastewater Collection

Water Delivery & Wastewater Collection



1. Water and wastewater peer benchmarks are from the 2016 American Water Works Association (AWWA) Benchmarking Performance Indicators
Source: Deloitte Analysis, 2016 AWWA Benchmarking Performance Indicators

Water Delivery & Wastewater Collection - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Improve service center footprint and dispatch locations	\$0.46	\$0.74
Perform asset management (EAM) and work order (WMS) audit to identify gaps in EAM and WMS and improve their collective use		
Improve planning for vehicle maintenance and fleet expansion	Decreased unproductive crew time due to vehicle unavailability	
Reduce overtime hours	\$0.52	\$0.52
Total Savings	\$0.98	\$1.26

Note: See detailed opportunity summary in the appendix

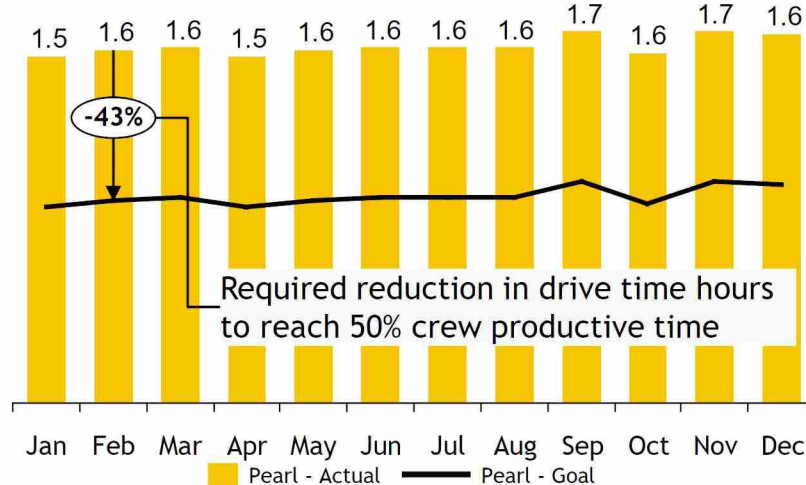


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Water Delivery & Wastewater Collection - Findings and Insights

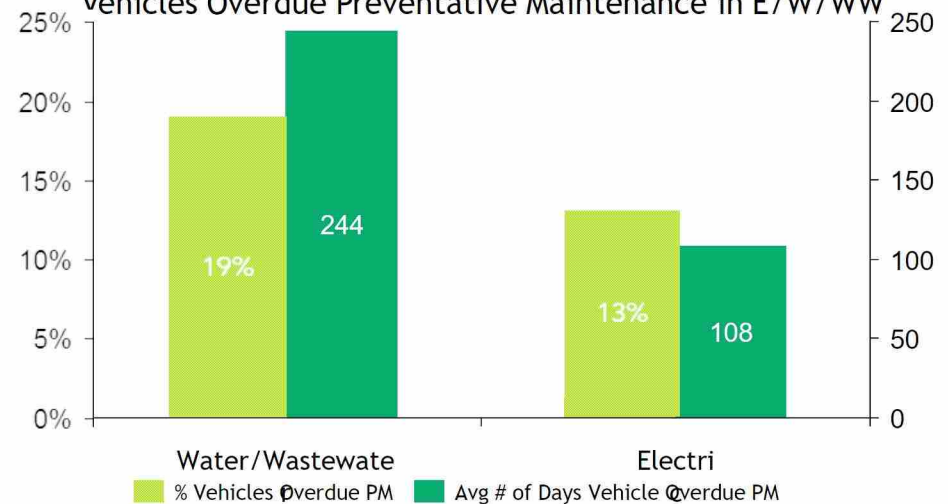
Improve Service Center Footprint & Dispatch

Drive Time Estimates for PSSC (Hours), Non-Emergent



Improve Planning for Vehicle Maintenance and Fleet Expansion

Vehicles Overdue Preventative Maintenance in E/W/WW



Perform EAM & WMS Audit

Completeness of Asset and Operational Performance Data

Asset Data	Completeness
Location	
Age	
Type	
Operational Performance Data	Completeness
Time to complete work order	
Work order crew #	
Aggregated data reporting	

Key Findings and Insights

- PSSC maintenance crews have less than 50% productive time, much of which is attributed to drive time
- There are gaps in EAM and WMS data entry and performance reporting
- W/WW has experienced increased demand on crews, which has increased pressure to keep vehicles available by delaying routine maintenance

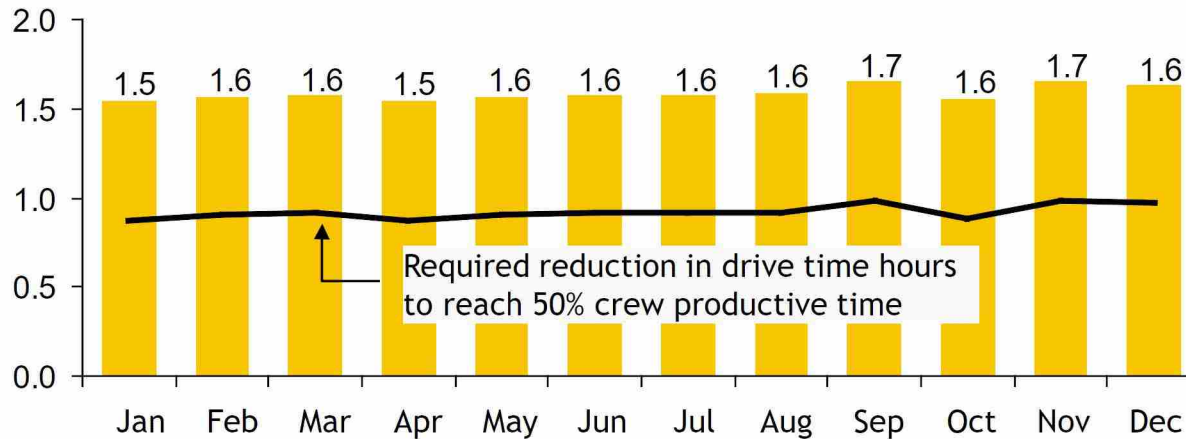
Improve Service Center Footprint & Dispatch - Average Work Day

Time	Description
7:00 to 7:45 am	Get Assignment, load up trucks, leave service center
7:45 to 8:35 am	Drive to Site
8:35 to 8:50 am	Safety Brief
8:50 to 9:10 am	Job Site Setup
9:10 to 11:25 am	Working on Job (2 hours and 15 minutes)
11:25 to 11:30 am	Tear Down Job Site
11:30 to 12:30 pm	Lunch
12:30 to 12:35 pm	Job Site Setup
12:35 to 2:10 pm	Working on Job (1 hour and 35 minutes)
2:10 to 2:20 pm	Tear Down Job Site
2:20 to 3:10 pm	Drive to Service Center
3:10 to 3:30 pm	Apprentice Training Allocation
3:30 to 4:00 pm	Arrive back at service center, paperwork, daily breaks

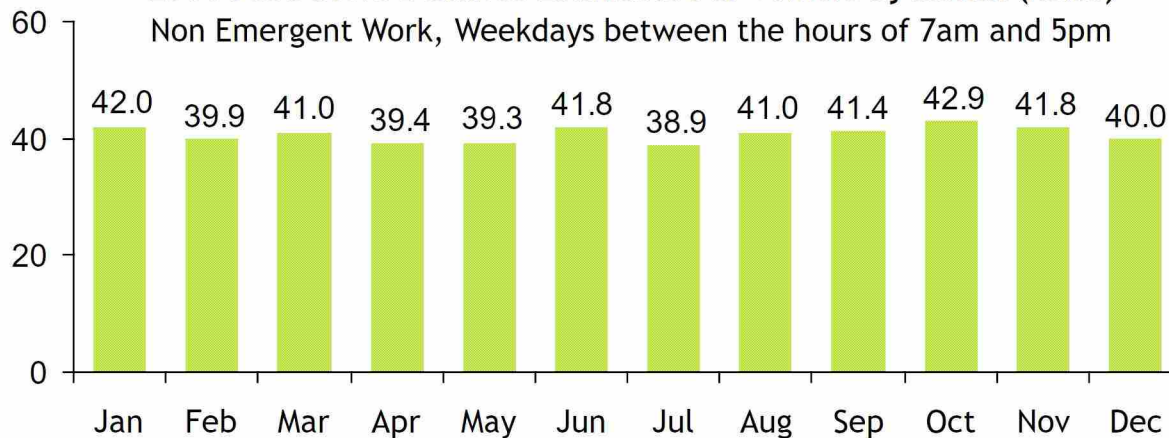
Crews are working on a work order for approximately 43% of their 9 hour shift. Decreasing drive time by 40 minutes per day (to 1 hour) would increase productive time to >50% (an increase in crew productivity by 16%)

Improve Service Center Footprint & Dispatch - Drive Time and Miles

2016 PSSC Drive Time Estimates Per Vehicle By Month (Hours)
Non Emergent Work, Weekdays between the hours of 7am and 5pm



2016 PSSC Drive Distance Estimates Per Vehicle By Month (Miles)
Non Emergent Work, Weekdays between the hours of 7am and 5pm

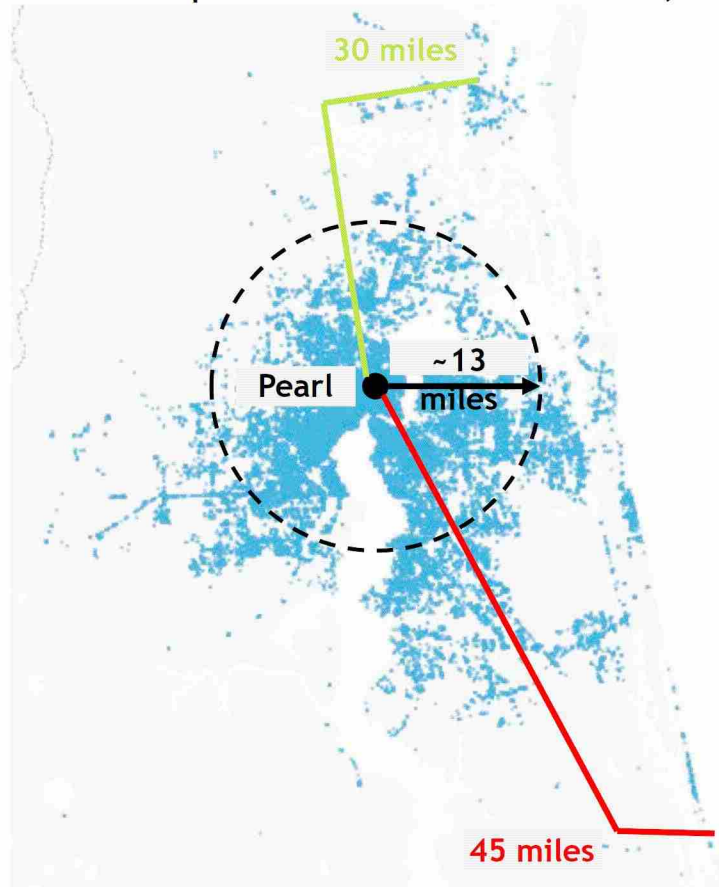


Takeaways

- Average drive time from Pearl Street Service Center to work sites appears relatively consistent throughout the year
- The average annual drive time for weekday non-emergent work is approximately 1 hour and 36 minutes
- Expanding the average to included weekday emergent work increases average daily drive time to 1 hour and 50 minutes
- Average weekday non-emergent drive time needs to decrease to 56 minutes per day to reach 50% crew productive time
- Peak drive times and miles driven occurred in October due to Hurricane Matthew

Improve Service Center Footprint & Dispatch - Service Center Locations

Vehicle Start / Stop Coordinates for PSSC Vehicles, 2016



Takeaways

- JEA's water territory stretches 75 miles from North to South and distribution maintenance is serviced entirely from Pearl Street Service Center
- Increasing crew productive time to 50% requires decreasing drive time to approximately 1 hour per day
- Within 1 hour per day, the average crew can drive approximately 26 miles
- A 13 mile radius drawn from PSSC approximates how many journeys crews are taking well beyond the "50% productive time boundary"
- A higher percentage of PSSC works orders take them outside the "50% productive time boundary"

Recommendation

- Study option to move or open additional service or dispatch centers to the east of the St. Johns River

Savings

- Decreasing daily drive time to 1 hour would increase crew productivity by 16%

Note: 13 mile driving radius is calculated using an average vehicle speed of 26 mph
Source: JEA Start/Stop GPS Data, Deloitte Analysis



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Performing EAM & WMS Audit and Implementing Solutions

EAM

- Assets are not tracked from the beginning of the EAM process
- Crews, contractors, and inspectors have limited ability to digitally record standardized asset data on-site reducing the amount and quality of data captured
- Data on assets (e.g. type, location, age) is unreliable, limiting the productivity of crews and the ability to perform preventive maintenance

Current State - Water and Wastewater

WMS

- Detailed operational reporting exists, but information is collected across multiple systems
- For example, work orders are processed through one of two systems, depending on where they originate:
 - Originating from customer = FMS
 - Originating from within JEA = EAM
- Aggregate operational performance metrics cannot be tracked accurately or used to optimize performance

Future State - Electric, Water and Wastewater

- The Golden Record
- Assets are tracked from procurement to end use
- Maintenance optimizes assets
- Technology enables participation by JEA crews, inspectors and contractors
- Accurately measure and improve performance reporting
- Barriers to efficiency are identified by work order type, service center and crews
- Technology enables detailed data collection using sensors and IOT devices (e.g. vehicles, field equipment)

Recommendations

- *Collect data requirements from EAM*
- *Identify work order data requirements from E/W/WW leadership to manage crew performance*
- *Map current asset and work order processes from work order creation to work order close*
- *Identify gaps in data collection/process and develop a plan to mitigate*

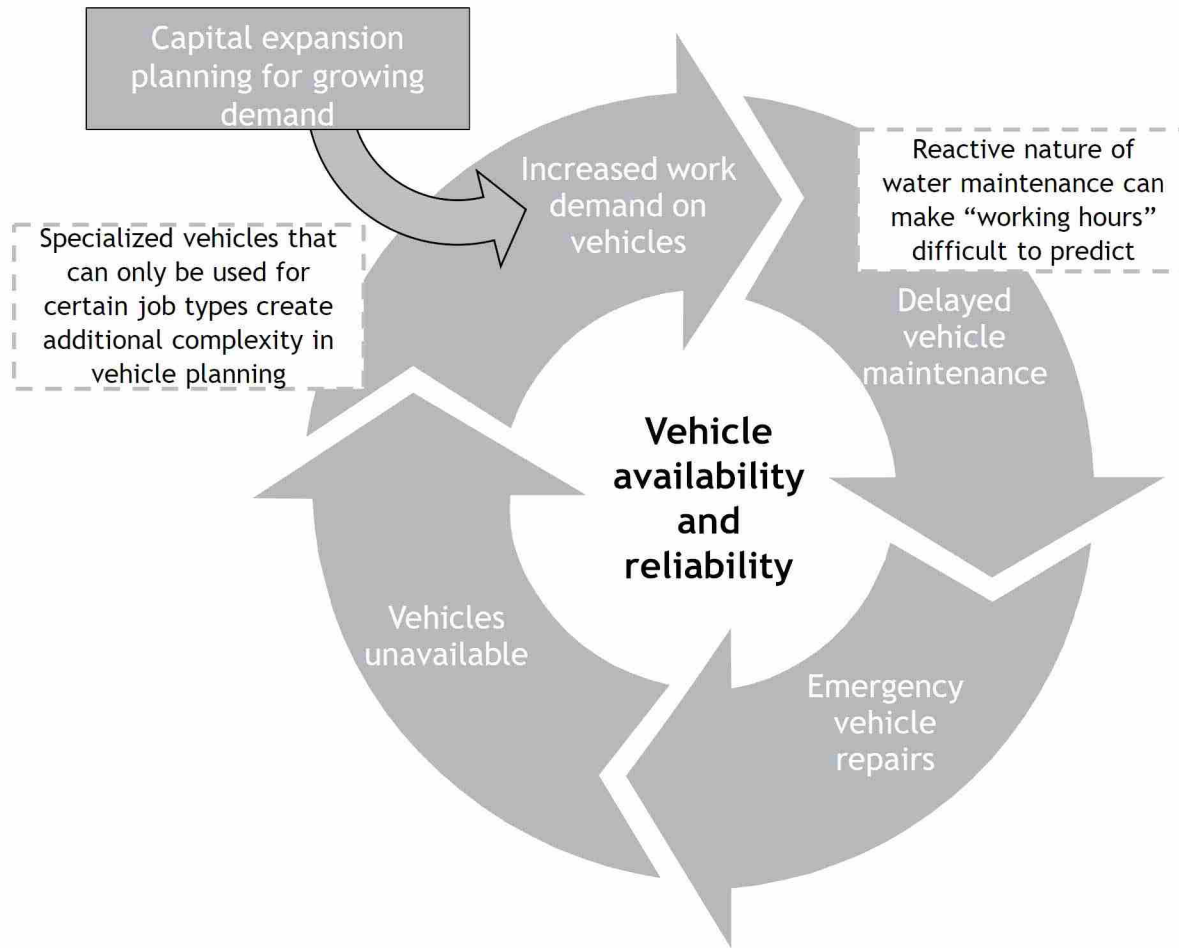
Source: Conversations with E/W/WW Employees, JEA Work Order Data, Deloitte Analysis



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Improve Planning - Fleet Availability and Reliability

Water and Wastewater Vehicle Availability and Reliability



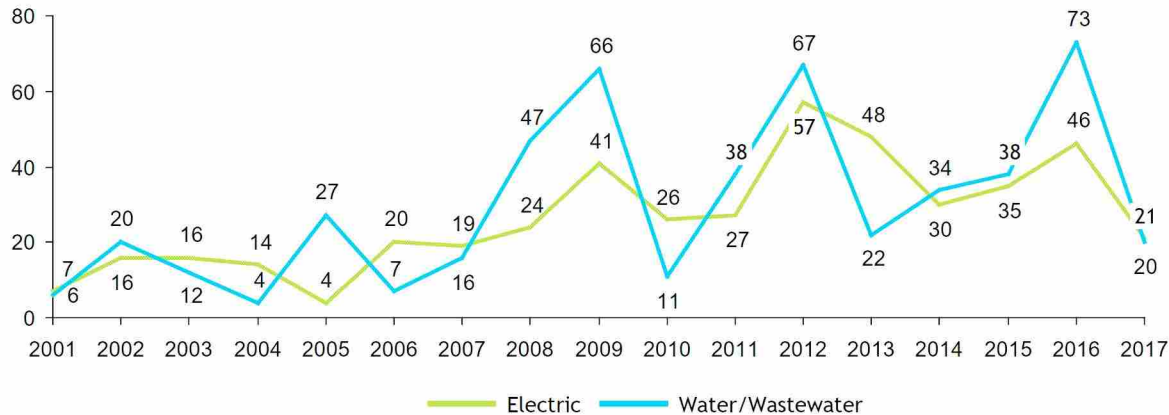
Takeaways

- Capital expansion planning for the W/WW vehicle fleet must be aligned to a 24 hour operational model
- Supervisors are resistant to send vehicles for necessary maintenance due to high work volume and crews lack trust that vendors will return vehicles on time
- Delays, or missed, preventive maintenance means vehicles deteriorate faster and require more burdensome emergency maintenance
- Emergency maintenance means vehicles are unavailable for longer and increases work demand on other crews

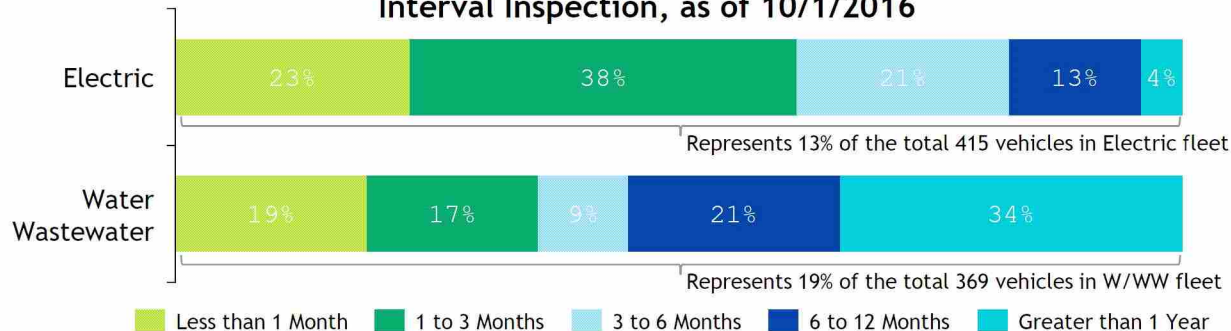
Note: Increased work demand refers to an increase in work orders and an increase in the number of employees requiring vehicles
Source: Conversations with W/WW Managers and Fleet Maintenance employees, Deloitte Analysis

Improve Planning - Increased Work Demand of Vehicle Fleet

Year Vehicle Entered into Service, as of 6/30/2017



Percentage of Vehicles Overdue for Level III Preventive Maintenance Interval Inspection, as of 10/1/2016



Takeaways

- The W/WW business has greater year-to-year variation in the number of vehicles entering service than the Electric business due to less-effective planning
- 19% (58 vehicles) of W/WW vehicles were overdue for Level III PMI at the of end of FY16, whereas, 13% (47 vehicles) of Electric vehicles were overdue
- On average, W/WW vehicles that are overdue for Level III PMI are late by 244 days, whereas, Electric vehicles are overdue by 108

Recommendation

- Ensure that both W/WW and Fleet Managers are involved in the capital planning cycle
- Enforce maintenance planning standards to require more frequent preventive maintenance

Savings

- Decreased unproductive crew time due to vehicle unavailability

Note: Vehicle entered into service data for 2017 represents only 6 months of the year

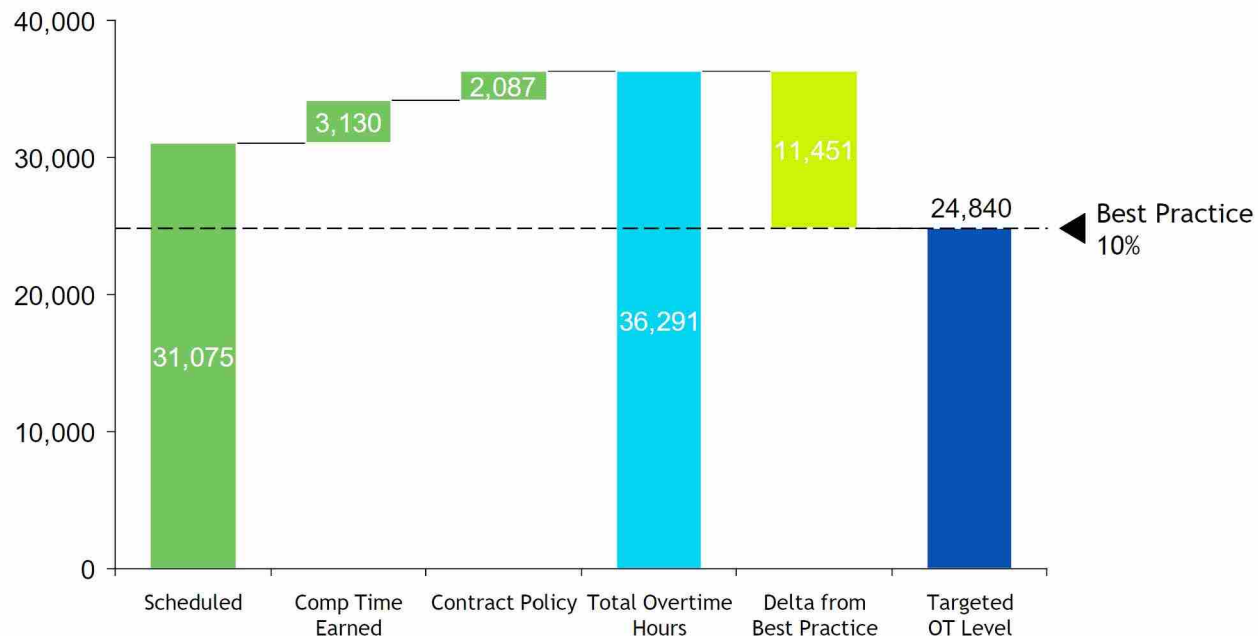
Source: JEA Operating Vehicle and Equipment List as of 6/30/2017, JEA PMI Units Due as of 10/1/2016, Deloitte Analysis



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Reduce Overtime Hours - Excess Planned Overtime at Service Centers

Managing Planned Overtime Hours to Industry Best Practices
Excess Planned Overtime Hours for Maintenance Mechanics at PSSC



Takeaways

- Maintenance Mechanics at PSSC exceed industry best practices for planned overtime hours
- Savings potential of approximately \$520,000 from the excess planned overtime hours worked by 135 Maintenance Mechanics at PSSC in 2016

Recommendation

- *Incentivize managers to reduce overtime hours to meet industry best practices*
- *Enforce accurate timesheet reporting*

Savings

- *\$520K in savings from aligning overtime hours to industry best practices*

Notes: Overtime hours are calculated as 80% of the sum of Scheduled, Comp Time Earned, Contract Policy, Emergency, and Holiday overtime hours. This revision was made due almost half of all overtime hours charged by PSSC employees were classified as emergency. During discussions with Pearl Street Managers this was deemed to be the result of inaccurate employee time reporting. Hours worked during "storm" periods, defined as when Florida is under a State of Emergency, are also not included. 100% of overtime hours are assumed to be paid at x1.5 total hourly compensation.

Appendix

Water Delivery & Wastewater Collection - Opportunity Detail

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Improve service center footprint and dispatch locations	<ul style="list-style-type: none"> Decrease drive time by dispatching crews closer to work sites for scheduled, predictable work Identify space at existing JEA properties (e.g. pumps, plants) that could be converted to support new service center or dispatch locations 	↓ Amount of non-productive demands on crews decrease	↑ Crews are able to accomplish more work orders in a given year	↑ Increase in short-term costs associated with expanded footprint		↑ Decreased drive time reduces JEA response times	↑ Decreased drive time likely to improve morale	\$0.46 Decreasing daily drive time to 1 hour 15 minutes	\$0.74 Decreasing daily drive time to 1 hour
Perform asset management (EAM) and work order (WMS) audit to identify gaps in EAM and WMS and improve their collective use	<ul style="list-style-type: none"> Collect data requirements from EAM Identify work order data requirements from E/W/WW leadership to manage crew performance Map current asset and work order processes from work order creation to work order close Identify gaps in data collection and process Develop a plan to mitigate 	↓ More efficient scheduling of crews reduces excess work	↑ Better management of productivity of crews	↓ Initial investment in work order audit improves crew efficiency		↑ More accurate cost and time estimates for customers	↑ Assuming change is managed, crews should experience fewer barriers to productivity		
Improve planning for vehicle maintenance and fleet expansion	<ul style="list-style-type: none"> Enforce maintenance planning standards to require more preventive fleet maintenance Develop capital planning standards that anticipate fleet expansion needs 8 to 12 months ahead of time 	↓ Work demand decreases due to more productive vehicles	↑ More work orders are executed	↓ PM reduces total maintenance costs		↑ Reduced and more reliable JEA response times	↑ Increased vehicle availability / reliability to improve morale		Decreased unproductive crew time due to vehicle unavailability
Reduce overtime hours	<ul style="list-style-type: none"> Establish performance metrics for managers to reduce planned overtime to meet industry best practices (Planned OT not to exceed 10% of standard time") Enforce accurate timesheet reporting 	↓ Fewer work orders are performed by crews	↓ Backlog of work may increase incrementally	↓ Total cost for W/WW operations reduced		↓ Increase in backlog may affect customers	↓ Employees who rely on overtime effected	\$0.52	\$0.52

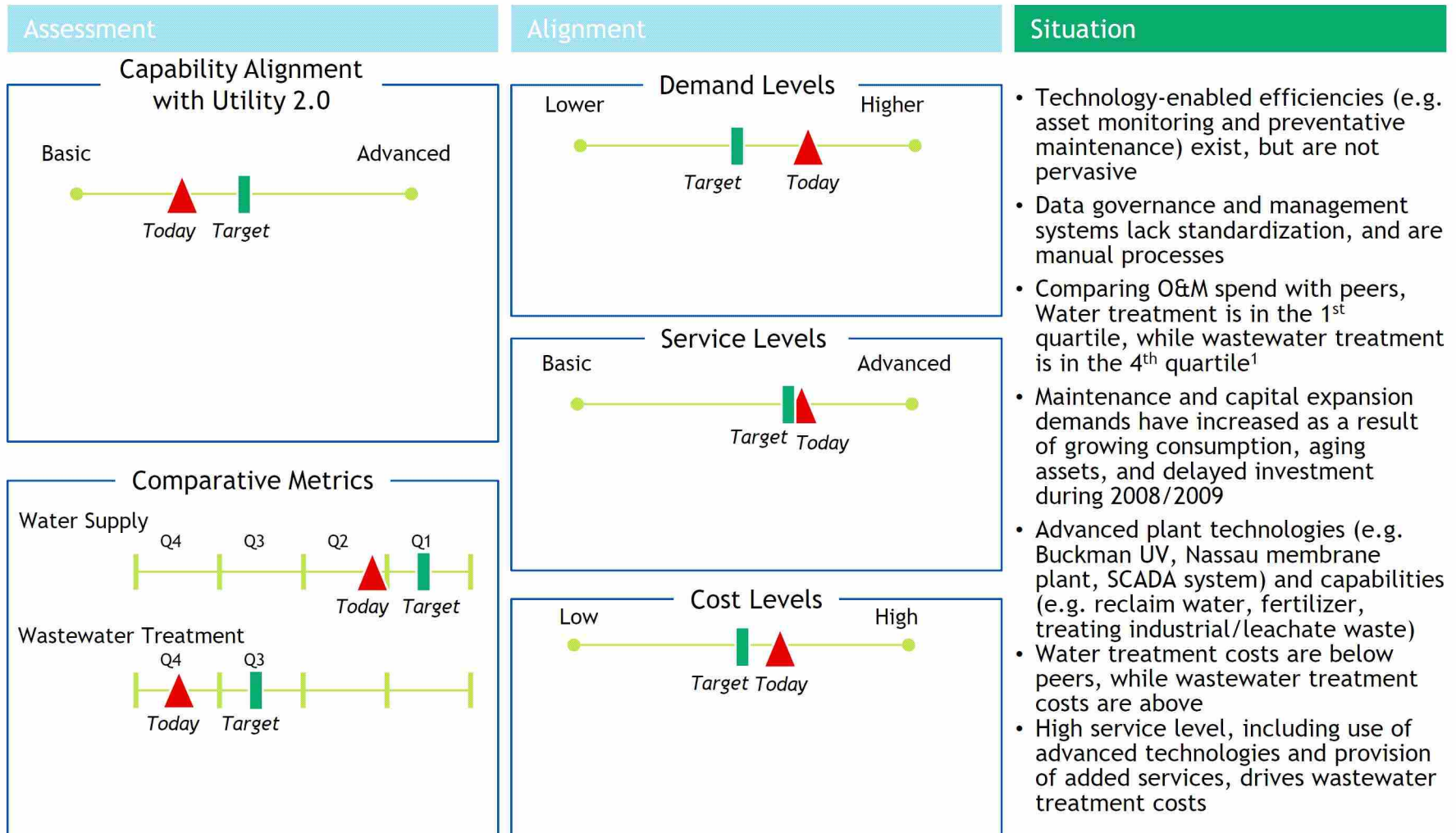


Source: Deloitte Analysis
1. All Water "Maintenance" personnel considered (136 personnel in total); Average hourly rate of \$34

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Water/Wastewater Treatment

Water & Wastewater Treatment



Note: Analysis does not consider cost savings that could be realized from changing treatment technologies or service offerings of the water/wastewater treatment business

1. W/WW peer benchmarks are from the 2016 American Water Works Association (AWWA) Benchmarking Performance Indicators

Source: 2016 AWWA Benchmarking Performance Indicators, Deloitte Analysis

Water & Wastewater Treatment - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Standardize and automate operational data reporting to increase employee productivity	\$0.10	\$0.10
Increase productive time by shifting material acquisition and inventory management work to procurement department	\$0.13	\$0.19
Reduce overtime hours	\$0.81	\$0.81
Total Savings	\$1.04	\$1.10

Note: See detailed opportunity summary in the appendix

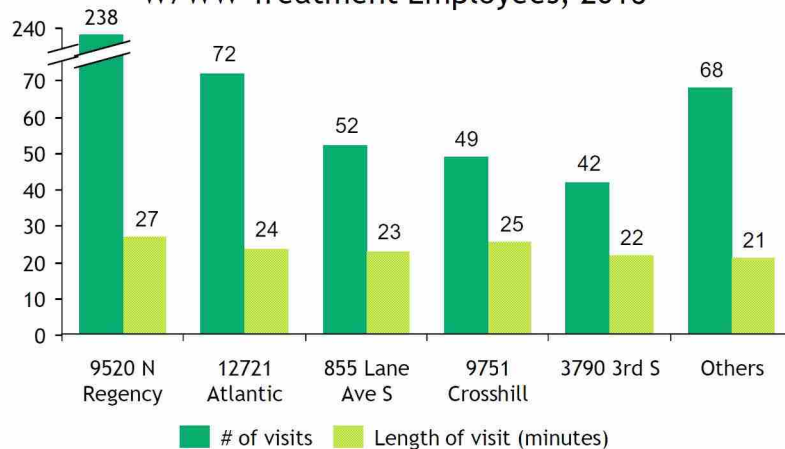


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Water & Wastewater Treatment - Findings and Insights

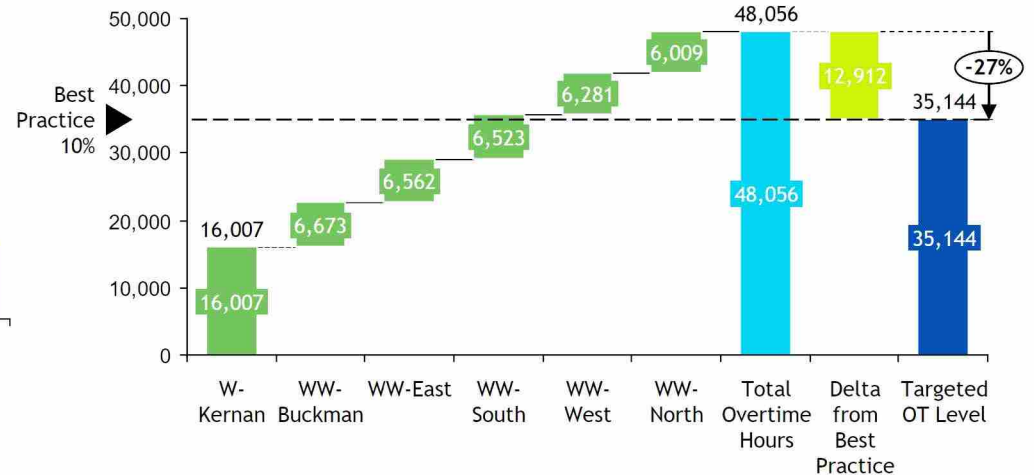
Shift Material Acquisition Away From P-Card

Number and Length of Visits to Local Home Depots
W/WW Treatment Employees, 2016



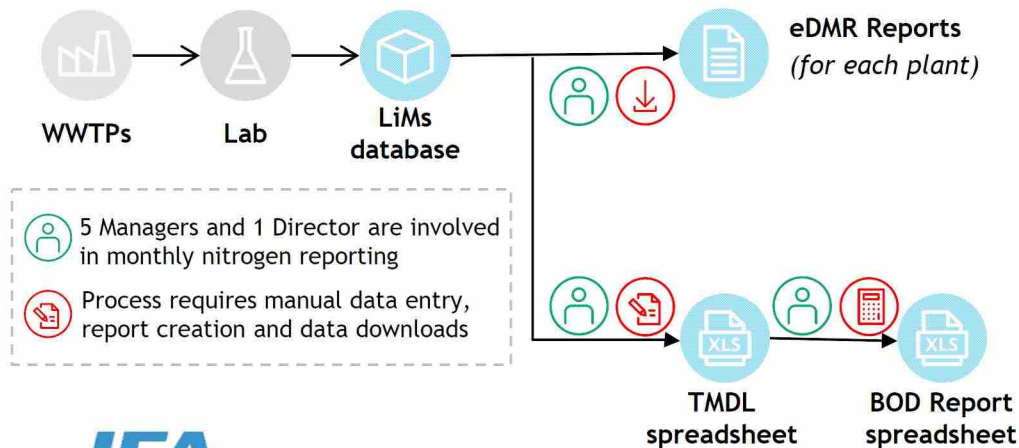
Manage Overtime Hours to Industry Best Practices

Excess Planned Overtime Hours for W/WW Plants



Automate Operational Data Reporting

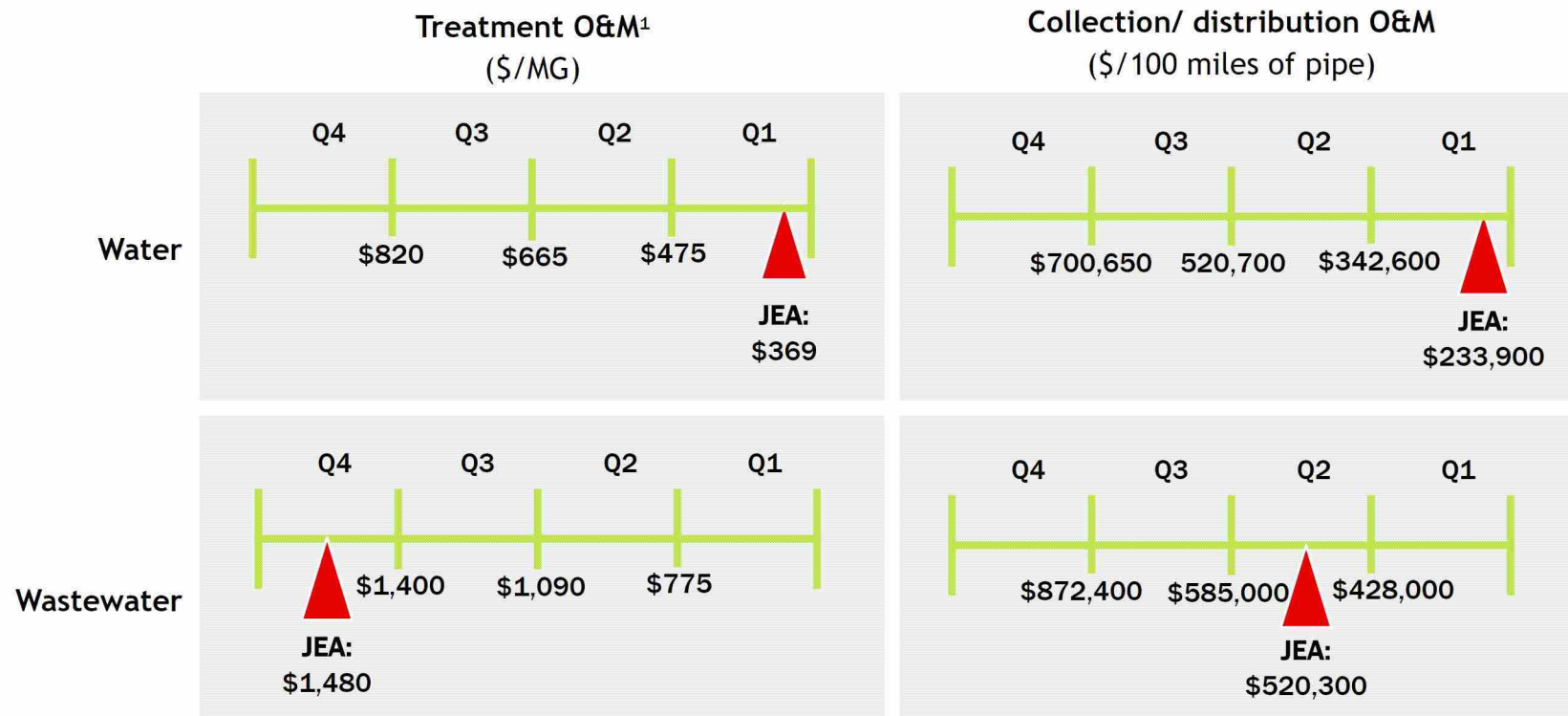
Example Process: Monthly Nitrogen Reporting



Key Findings and Insights

- Material procurement relies heavily on p-card purchases, resulting in:
 - Excess unproductive time
 - Unrealized bulk discounts
 - Reduced quality control (e.g. construction standards)
- Non-emergent overtime hours exceed the industry best practices of 10% of normal hours
- Operational data reporting is time and labor intensive due to manually-intensive and duplicative processes

Water & Wastewater - O&M Benchmarks



Takeaways

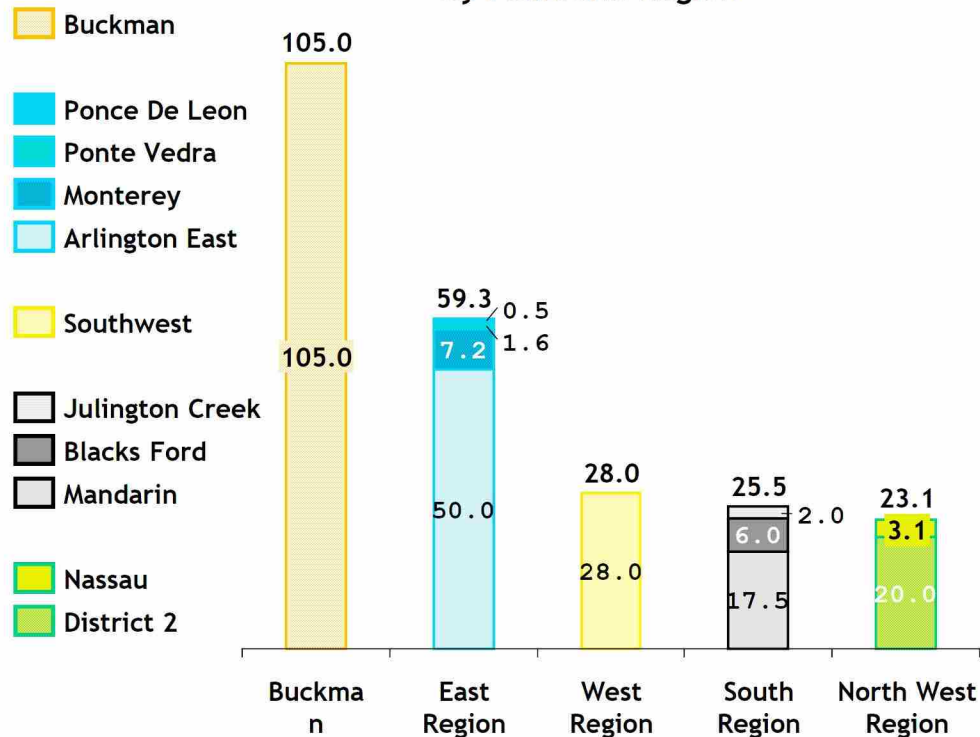
- Water supply costs appear competitive, with both treatment and distribution O&M falling in the first quartile among peers¹
- Wastewater costs are above that of top performing peers, with collection and treatment O&M falling in the 2nd and 4th quartiles, respectively
- High collection O&M attributable to JEA's vast territory, requiring ~4,000 miles of gravity sewers/force mains
- High treatment costs driven by use of advanced treatment technology, provision of biosolid and reuse services, and a lack of economies of scale in the majority of WWTPs

1. Quartiles are calculated as the average quartile value among three peer groups for JEA collected in the AWWA benchmark survey: 1) utilities providing combined water/wastewater services; 2) utilities serving between 100-500k accounts; and 3) utilities operating in the southeast US.

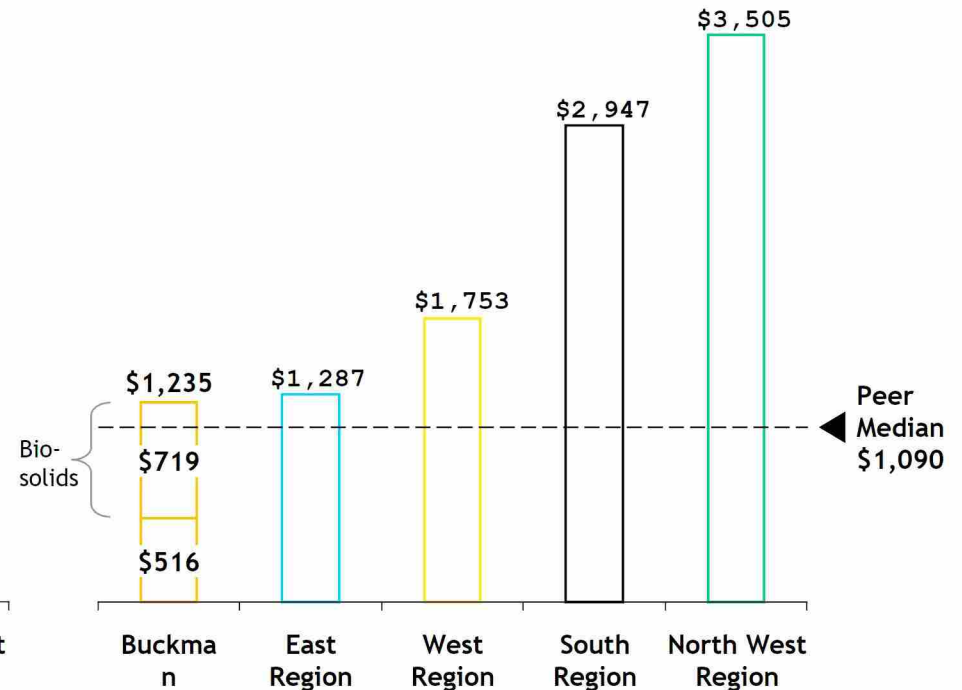
Source: Deloitte Analysis, 2016 AWWA Benchmarking Performance Indicators

Drivers of High Wastewater Treatment O&M - Economies of Scale

Rated Maximum Daily Treatment Capacity (MGD),
by Plant and Region



Wastewater Treatment O&M per MG,
by Region



Takeaways

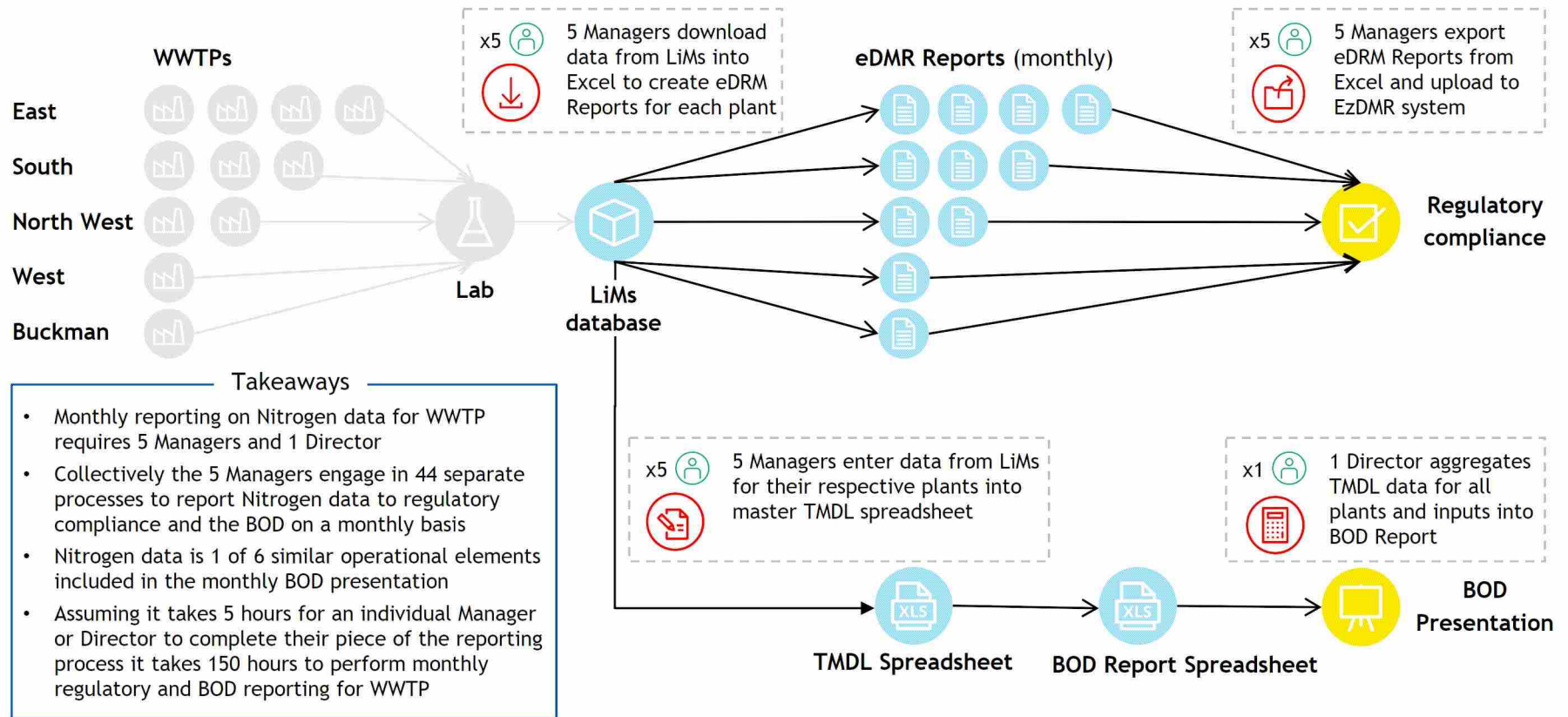
- 6 of 11 WWTPs have a rated capacity of <10 MGD, which drives high O&M costs and results in poor economies of scale
- Small facilities are the result of a dispersed service territory and growth through acquisition

- O&M costs at Buckman are in Q1 relative to peers when biosolid processing costs are excluded
- Biosolid and reclaim services drive higher costs, as many wastewater utilities do not provide these services

1. Median calculated as the average median value among three peer groups for JEA collected in the AWWA benchmark survey: a) utilities providing combined water/wastewater services; b) utilities serving between 100-500k accounts; and c) utilities operating in the southeast US.
Source: Deloitte Analysis, 2016 AWWA Benchmarking Performance Indicators

Operational Data Collection: Example Reporting Process

Example Reporting Process: Monthly Nitrogen Data



Recommendation

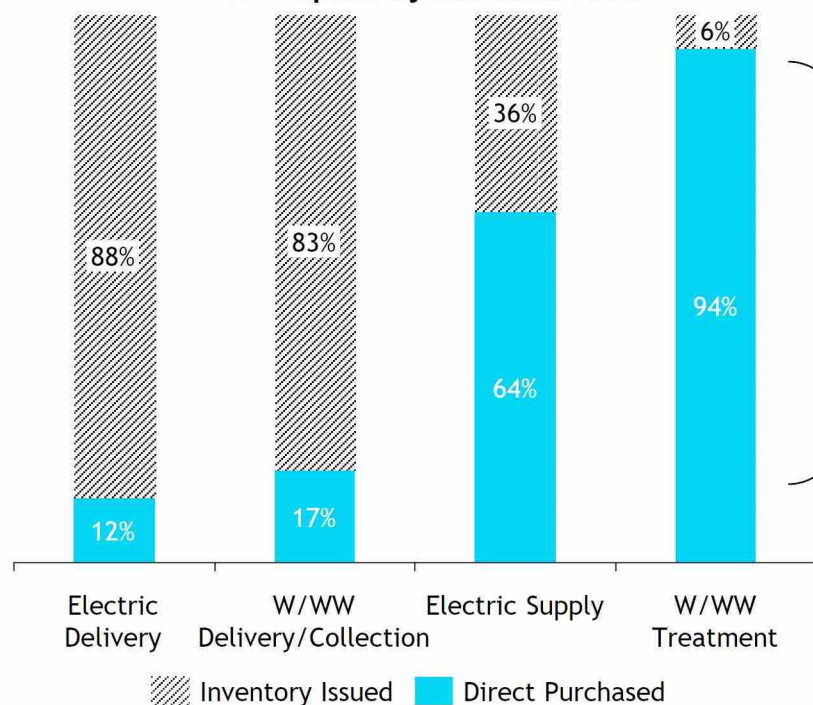
- Maintain data for all plants in a single, commonly accessible system
- Minimize the number of manual touchpoints to the data to reduce risk of entry or calculation errors and improve efficiency

Savings

- Reducing monthly reporting time by 75% would save 1,620 hours of WWTP Manager/Director time equaling approximately \$100K

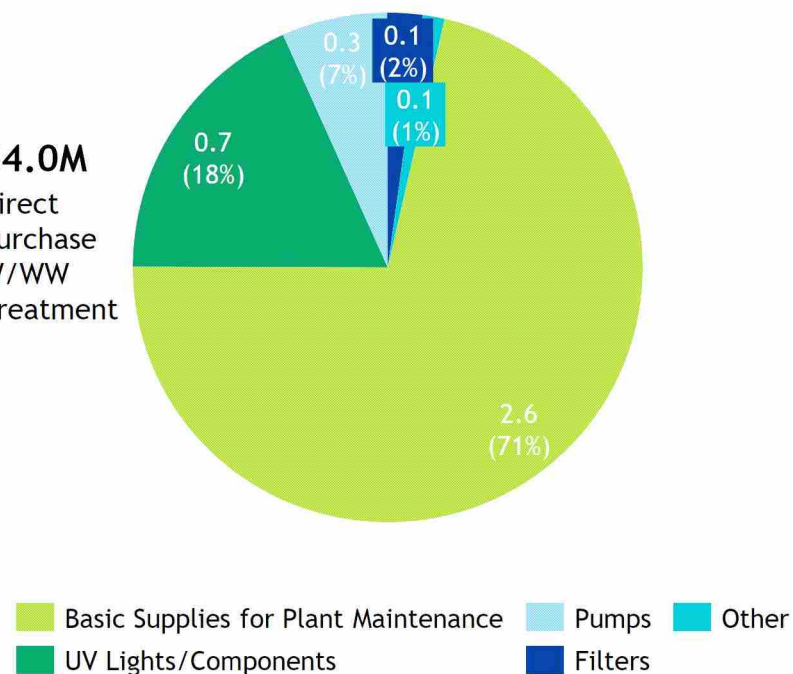
Procurement - Heavy Reliance on P-card Spend

Directly Purchased vs Inventory Issued,
% of Spend by Business Area



Categories of W/WW Treatment Direct Purchases

\$4.0M
Direct
Purchase
W/WW
Treatment



Takeaways

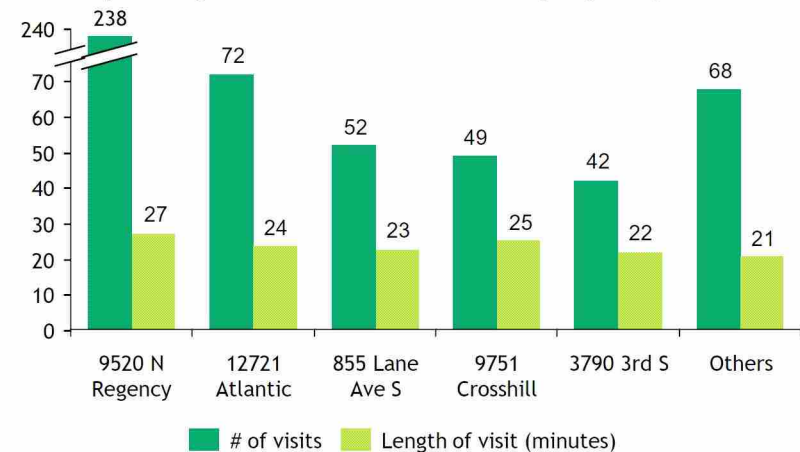
- 94% of materials purchased by the W/WW treatment business is done so via p-cards
- By not purchasing through procurement, W/WW Treatment misses out on leveraged sourcing and common inventory opportunities and increase risk of not procuring against standards
- 71% of p-card purchases are attributed to “basic supplies for plant maintenance”, which lack sufficient detail to be audited or monitored by outside parties, including those involved in the budget approval process

Procurement - Reliance on P-card Spend Decreases Productivity

Sites Visited by an Individual WW Reuse Technician
January 7th, 2016



Number and Average Length of Visit to Local Home Depots by W/WW Treatment Employees, 2016



Takeaways

- High levels of P-card spend lead to additional drive time and time spent in store, decreasing overall productive time
- On average, W/WW treatment employees spend 25 minutes in-store when purchasing supplies from the Home Depot
- W/WW Treatment employees spent a total of 8.9 days (213 hours) at Home Depot stores in 2016

Recommendations

- Shift materials acquisition to procurement
- Work with procurement to decrease lead times

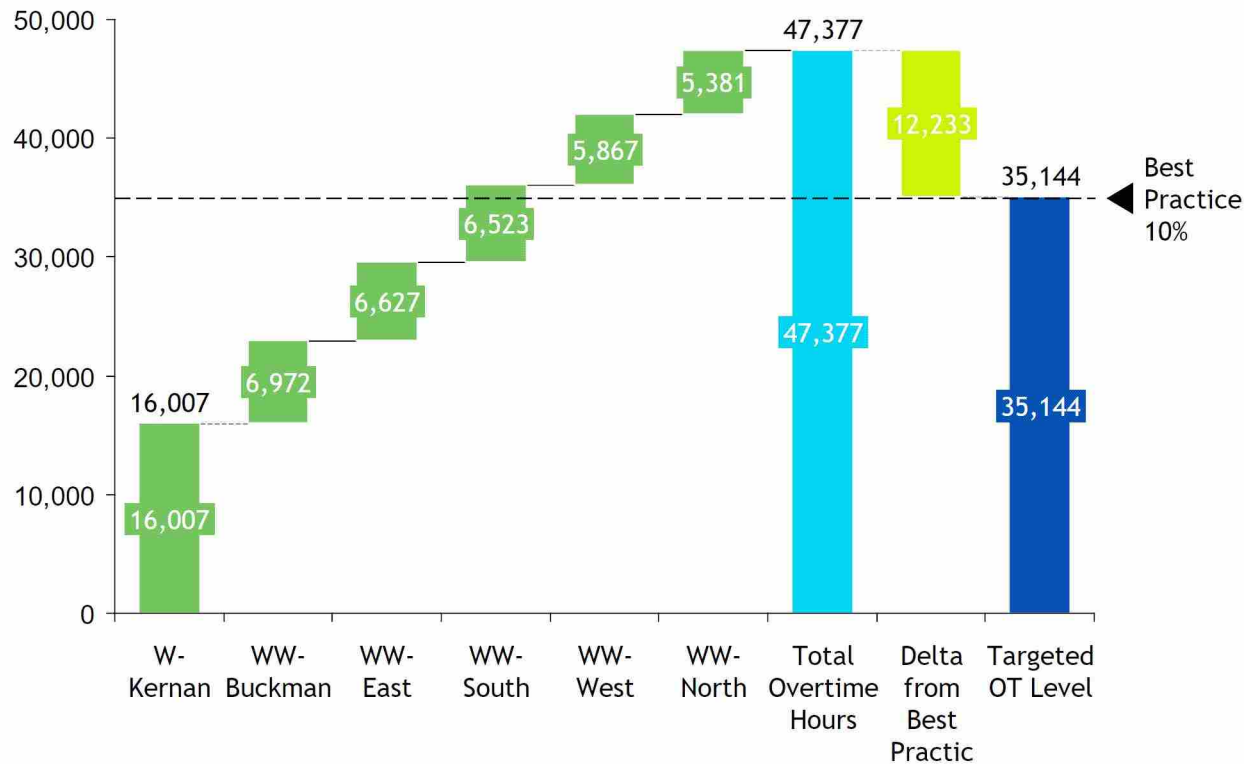
Savings

- Assuming a 10% savings on inventory issued purchases decreasing direct purchases to 64% of total spend would yield savings of approximately \$130K

Note: 90% of trips to JEA W/WW employee visits to Home Depots occur between 7am and 5pm, with 9 to 10 am being the most common hour to visit
Source: JEA Start/Stop GPS Data, Deloitte Analysis

Reduce Overtime Hours - Excess Planned Overtime at W/WW Plants

Managing Planned Overtime Hours to Industry Best Practices
Excess Planned Overtime Hours for W/WW Plants



Takeaways

- W/WW Mechanics, Maintainers, and Technicians exceed industry best practices for planned overtime hours
- W/WW facilities exceed best practice by 3% of “normal time” hours corresponding to approximately \$810K in overtime pay

Recommendation

- *Incentivize managers to reduce overtime hours to meet industry best practices*

Savings

- *\$810K in savings from aligning overtime hours to industry best practices*

Notes: Overtime hours are calculated as the sum of Scheduled, Comp Time Earned, and Contract Policy. Emergency and Holiday overtime hours are not included. Hours worked during “storm” periods, defined as when Florida is under a State of Emergency, are also not included. 100% of overtime hours are assumed to be paid at x1.5 total hourly compensation.
Source: JEA Overtime Data, JEA FTE Data, Deloitte Analysis

APPENDIX

Water & Wastewater Treatment - Opportunity Detail

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Standardize and automate operational data reporting to increase employee productivity	<ul style="list-style-type: none"> Standardize data collection in a commonly accessible system to improve transparency, consistency, and comparability of asset performance information Automate report creation (e.g. daily run reports and monthly eDMRs/MORs) to reduce the time required for manual report creation and sharing 	↓ Reduced time to validate/aggregate data	↑ Enhanced planning / decision-making abilities	↓ Higher productivity; reduced rework			↑ Greater efficiency removes barriers to productivity	Automation of WWTP monthly reporting process could save approximately \$100K in Manager/Director employee time	
Increase productive time by shifting material acquisition and inventory management work to procurement department	<ul style="list-style-type: none"> Shift materials acquisition to procurement to: <ul style="list-style-type: none"> Realize bulk spending discounts Account for all materials on JEA financials Increase crew productivity by decreasing drive and in-store time associated with one-off materials purchases Increase quality control/assurance Enforce utilization of formal procurement procedures, including advance planning Rely on p-card spending for urgent, unanticipated events, such as emergency repair needs Reduce procurement lead time [see supply chain] 	↓ Reduced effort procuring materials, increasing productive time on work orders	↑ Alignment with construction standards means more system reliability	↓ Savings from negotiated prices, better inventory management and less time purchasing materials at retail locations	↑ Reduced risk of violating procurement and construction standards	↑ Better system reliability resulting from enforcement of quality control standards	↑ Increased productivity by reducing time required for procurement	\$0.13	\$0.19
Reduce overtime hours	<ul style="list-style-type: none"> Establish performance metric for managers to incentivize reduction of overtime to meet industry best practices (Planned OT not to exceed 10% of standard time") Enforce accurate timesheet reporting 	↓ Fewer work orders assigned	↓ Work backlog may increase	↓ Total cost for W/WW operations reduced		↓ Backlog increase may affect customers	↓ Reduction in total employee pay	\$0.81	\$0.81

Customer Experience

Customer Operations

Assessment

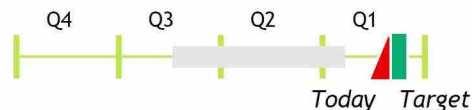
Capability Alignment with Utility 2.0



- Capability level meets current customer expectations based on in J.D. Power
- Automation and outsourcing can unlock further efficiency and continue to make it easier for customers to interact with JEA

Comparative Metrics

O&M Expense Per Call



- Among a group of 20 other Deloitte utility client customer service data, JEA's O&M per call and O&M per customer are leading

Alignment

Demand Levels



- Reduce manual, low value processes and calls handled provides further opportunities

Service Levels



- Current service level expectations are being met as indicated by JD Power

Cost Levels



- Cost levels appear to be leading based on external and internal comparisons

Opportunity

There are three potential opportunities that may offer JEA the opportunity to continue to improve the cost efficiency of call center operations while either improving or maintaining customer experience.

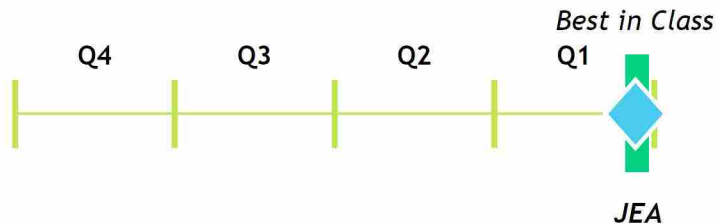
First, JEA should conduct a detailed assessment of a mutual assistance program for high demand periods - it can limit the peak used to size CSR staffing.

Second, developing a "Chat Bot" business case is prudent to see if this technology can reduce CSR call volume with a satisfactory ROI.

Last, JEA can reduce CSR turnover by transforming the call center into a "boot camp" to identify and recruit talent for JEA.

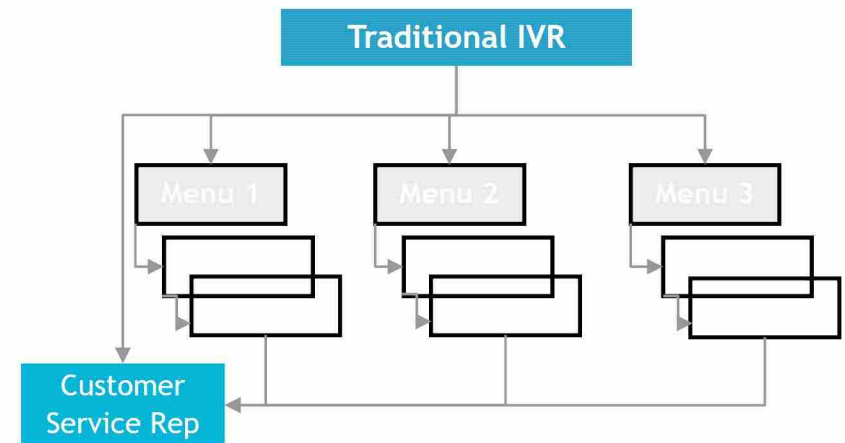
Customer Operations - Findings and Insights

O&M Expense Per Call Cost per Call and O&M Cost per Customer

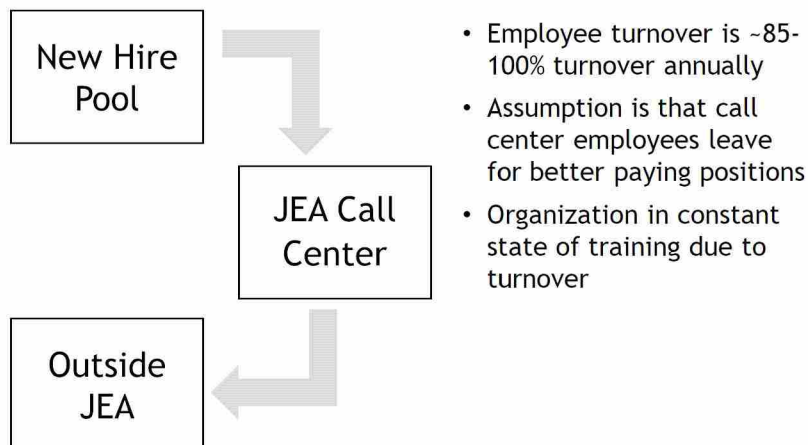


- Peer group includes 20 other Deloitte utility client customer service date
- JEA's O&M per call and O&M per customer are leading

Current Call Process for Customers Leverages IVR to Limit Number of CSR Calls



Call Center Insourcing Hiring Process



- Employee turnover is ~85-100% turnover annually
- Assumption is that call center employees leave for better paying positions
- Organization in constant state of training due to turnover

Key Findings and Insights

- In addition to J.D. Power rankings improvement, JEA's customer operations metrics are leading
- Increasing use of scripts, CC&B for C&I and other tools like project outreach continues to decrease CSR call volumes - which remains a primary goal for the organization
- Circuitous and manual processes like deposits, receivables, and permitting have many handoffs and manually intensive
- Value of greater analytics is high to help determine how to reduce the cost for notification for payment

Customer Operations - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target	Reach
Investigate mutual assistance to maintain or reduce call center sizing		
Determine if Chat Bot could further reduce CSR call volume		
Reduce turnover and improve candidate sourcing		

Customer Operations - Cost Improvement

Two options were examined to help customer operations continue its ongoing focus on reducing costs while maintaining high customer service levels - one appears to be worth considering

Option 1 - Reduce Call Center Costs Via Outsourcing

Description

- Move 80% of CSR's and technology off-site to a third party provider
- Leverage SLA's to maintain performance levels

Findings

- JEA is not likely to experience cost savings by outsourcing and in fact may experience an increase in resource costs if the operation remained in Florida
- It is possible some cost savings could be found in other U.S.A. locations but would likely need to move off- shore to realize material savings - though this is not considered to be politically viable
- It is important to note that the best practice is to only move up to 80% of call center operations to a third party

Assessment - call center outsourcing not viable for JEA

Option 2 - Leverage Mutual Assistance for High Demand Periods

Description

- Coordinate with other utilities for IVR overflow and high demand call periods
- Solution limits need to size call center staff for extreme peaks

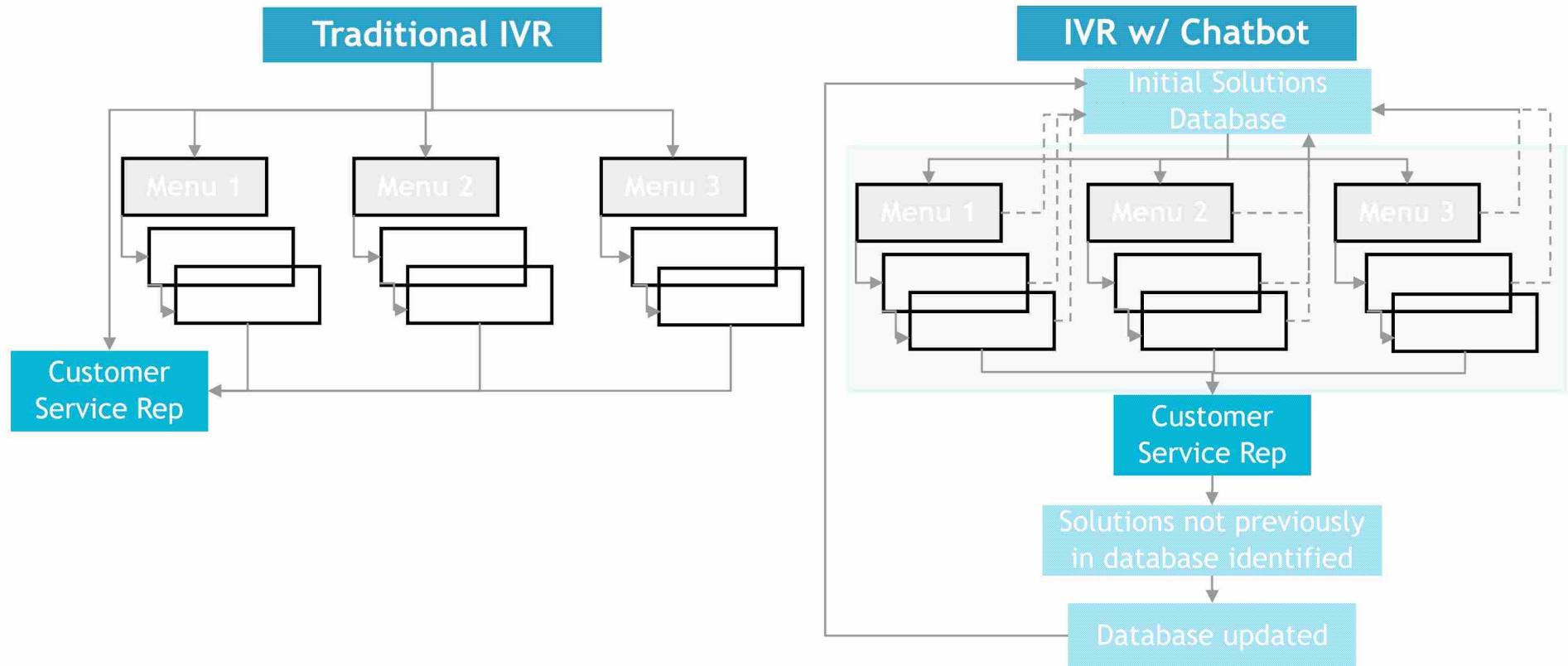
Findings

- Best utilized during storms and other high demand periods
- The number of municipal utilities in Florida, across the Southeast and/ or TEA offer a real opportunity
- Still requires development of SLA to maintain performance levels, determine the cost repayment construct and there is likely to be a learning curve

Assessment - call center mutual assistance is a viable option for JEA to consider

Customer Operations - Cost Improvement

Technologies exist that allow companies to utilize more enhanced voice enabled problem solving to reduce the number of phone calls handled by humans - furthering JEA's goal to reduce warm call volume

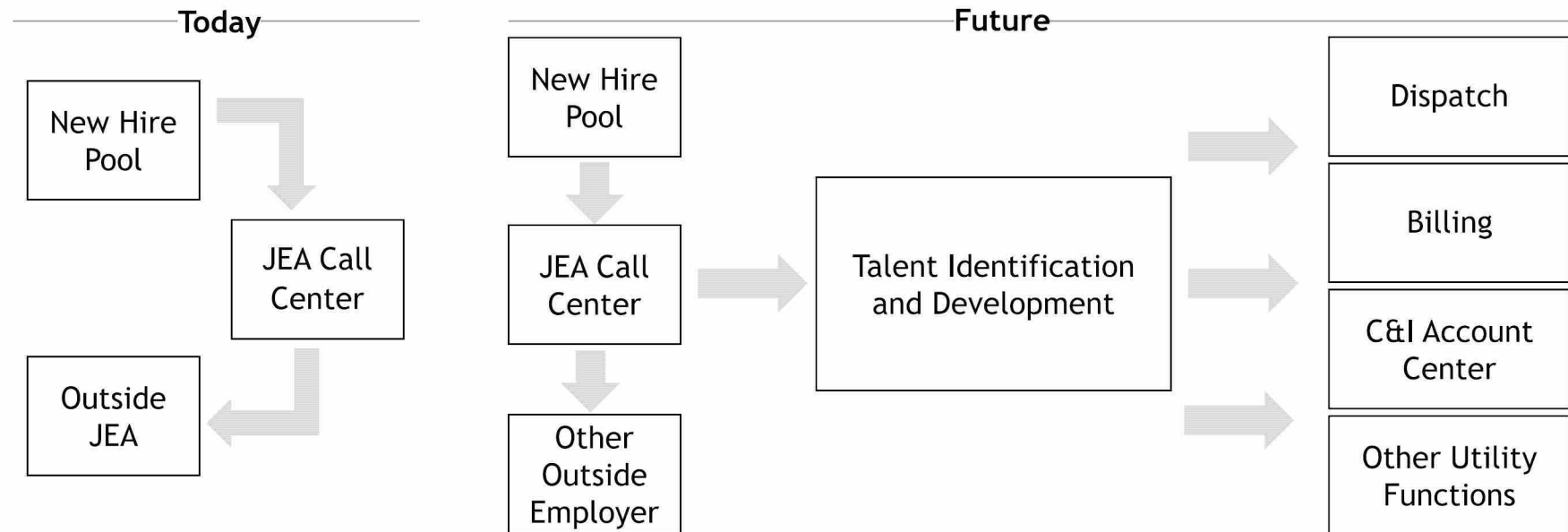


- Pre-defined menus, often data repeat (bill balance, outage, etc)
- Voice direction offers limited sophistication in directing customers to problem solving menus
- Customers “hit 0” to get to an agent when menu options can’t help them, voice doesn’t recognize request, or more complicated tasks

- Voice recognition is more adaptive to regular speech, allowing better direction within menus and better answers
- More detailed answers can be placed within FAQs, etc. to assist customers and further reduce call volumes to CSRs
- “Bot” can mine previous answers from CSRs to develop answers for common questions for solution updates - chat functionality

Customer Operations - People Development

Transform call center into a “boot camp” identifying qualified candidates for other areas in JEA, helping to alleviate recruiting pressures as retirement and voluntary turnover increases in the organization



Current State

- Employee turnover is ~85-100% turnover annually
- Believe employees leaving for better paying positions
- Organization in constant state of training due to turnover

Future State Benefits

- Reduced call center employee turnover
- Focus on more advanced training rather than new employee training
- Pool of potential employees familiar with JEA operations

Requirements to Implement

- Offer higher pay to temp employees to slow turnover
- Agreement with insourcing provider to “take” high performers on to JEA books
- Method to identify, train, and develop talent

Appendix

Customer Operations - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target	Reach
Investigate mutual assistance to maintain or reduce call center sizing	<ul style="list-style-type: none"> Call centers are usually staffed to meet peak times Working with a number of similarly sized yet geographically disparate utilities and/or the TEA membership, high demand or IVR overflow periods can be met through mutual assistance programs with other utilities 	↑↓ <i>Demand remains consistent</i>	↑↓ <i>Service remains consistent</i>	↓ No longer have to maintain staffing for peak volume			↑ Employees better utilized during non-peak demand		
Determine if Chat Bot could further reduce CSR call volume	<ul style="list-style-type: none"> Utilize more sophisticated call center technology to allow for more effective answers within call menus and therefore reduce the number of calls handled by CSR's "Chat Bot" deployments typically pay for themselves 	↓ Reduced demand for in-person interaction	↑ More effective menus	↓ Reduced cost to maintain service		↑ Able to get more answers immediately	↑ Able to focus on more sophisticated issues		
Reduce turnover and improve candidate sourcing	<ul style="list-style-type: none"> Provide a pathway for high performing call center employees to transition to full-time positions within JEA 	↓ Reduced training for basic steps	↑ Better trained CSR group	↑ Increase salary for personnel		↑ Exp. employees w/ more training	↑ Higher satisfaction		

Supply Chain

Supply Chain

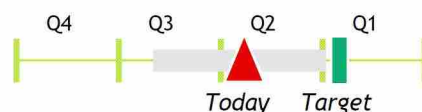
Assessment

Capability Alignment with Utility 2.0



Comparative Metrics

Staff per \$1B in revenue

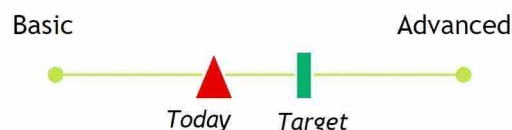


Alignment

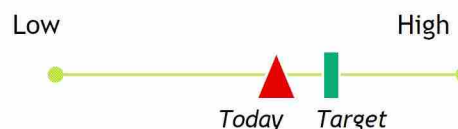
Demand Levels



Service Levels



Cost Levels

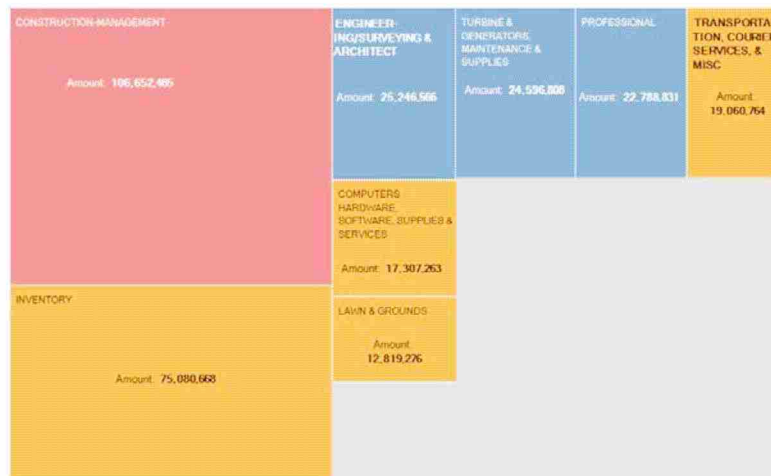


General Assessment

- Supply Chain (“organization”) is not structured to effectively meet the strategic needs of the Business (Electric and Water, JEA)
- The supply chain function is generally under-resourced compared to peers, but with a mismatch of skill-sets to business needs
- Current skillsets and staffing support tactical buying and planning versus strategic planning and category management
- Lower comparable personnel costs are a reflection of lower salary bases and under-resourcing rather than leadership efficiency
- Organization provides limited value to the Business due to the high number of manual, low value tasks it executes
- Tactical focus, lower level skill-sets, and under resourcing provide reduced savings and strategic focus for capital planning/execution, sourcing, negotiation, contract management, inventory planning,

Supply Chain - Findings and Insights

Top 2016 Spend Categories



Key Findings and Insights

- The organization has 128 spend categories, with 60% of spend focused in eight categories
- Construction and engineering and architecture categories account for ~26% of spend
- Senior buyers to focus on reactive tasks and keeping up with immediate needs
- Inventory buyers focus on cost reduction at the piece level
- Supply chain is responsible for the inventory dollars, but does not have input to what goes in or comes out of inventory
- There are more dollars in slow/non-moving inventory (class E) than all other categories of inventory combined

Buyer Purchasing Category Assignment

Sr. Buyer	Number of Categories	
	Assigned	FY2016 Spend
Rosenberry, Ron	20	139,447,568
Lovgren, Rodney	66	94,639,950
Woyak, Nathan	13	66,426,693
Dambrose, Nick	29	50,997,404
Grand Total	128	351,511,615

Inventory Breakdown by ABCD Classification

On-Hand Inventory Dollars (4/28/2017 In \$MM)				
Inventory Classification	Classification Description	Northside		Total Dollars
		Generating Station	Commonwealth Service Center	
Class A	>\$15K Issues	\$4.52	\$13.12	\$17.64
Class B	\$2-15K Issues	0.96	1.65	2.62
Class C	\$500-2K Issues	0.23	0.49	0.72
Class D	\$100-500 Issues	0.09	0.16	0.24
Class E	\$.01-100 Issues	12.87	11.11	23.98
Grand Total		18.73	26.53	45.26

Supply Chain - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target	Reach
Define strategy and supporting operating model for Supply Chain		
Focus Buyers around category management		
Implement more robust contract management program	5	10
Develop integrated capital/project process (planning through release)		
Develop shared KPIs and responsibilities across business		
Review Procurement Policies and Procedures to provide better service to Business and Vendors		
Obtain more visibility and control of spend that is currently “uncontrolled”		
Improve pricing in key “Services” categories	7	16
Improve pricing in “Inventory” category	6	11
Reduce inventory dollars	13	23
Review Fleet EAM process to identify cycle time reduction opportunities	Reallocate Manager hours currently dedicated to data entry	
Investigate use of Fleet Management System		
Automate processes and enhance use of Oracle	Reallocate AP and Procurement resources allocated to data entry	

Supply Chain - Strategy, Operating Model, and Focus

Capturing the identified savings requires elevating Procurement to a strategic partner by developing the necessary capabilities within Supply Chain to accept higher value responsibilities

Business Level	Roles & Capabilities	Primary Responsibilities						
<div>Business Plan</div> <ul style="list-style-type: none">Defined by corporate strategyBusiness units align strategy to corporate goals<ul style="list-style-type: none">Revenue and spend targets, business initiatives, etc.	<div>Supply Chain Director</div> <table><tr><td>Organization Management</td><td>Integrated KPI development</td></tr><tr><td colspan="2">Strategy Development</td></tr></table>	Organization Management	Integrated KPI development	Strategy Development		<ul style="list-style-type: none">Develop procurement strategy that aligns function goals to corporate goalsDevelop two sets of KPI's - one for supply and another shared set for supply chain and the business to execute against		
Organization Management	Integrated KPI development							
Strategy Development								
<div>Category Plan</div> <ul style="list-style-type: none">Aligned to function and business unit plansStrategy for key commodities<ul style="list-style-type: none">Market risks/considerationsBusiness needs assessment/planVendor strategy - partnerships, negotiation, etc.	<div>Senior Buyers/Category Mgr</div> <table><tr><td>Industry/Business Knowledge</td><td>Business Planning and Partnership</td></tr><tr><td>Supplier Management</td><td>Technical Knowledge</td></tr><tr><td>Category Knowledge</td><td>Negotiation and Contract Mgt</td></tr></table>	Industry/Business Knowledge	Business Planning and Partnership	Supplier Management	Technical Knowledge	Category Knowledge	Negotiation and Contract Mgt	<ul style="list-style-type: none">Focused on category management and business partnership rather than PO executionOwns negotiations and therefore requires more technical engineering knowledgeOwns contract management <p>Need: JEA likely needs to add up to 5 additional positions, and if cannot recruit then use a contracted service</p>
Industry/Business Knowledge	Business Planning and Partnership							
Supplier Management	Technical Knowledge							
Category Knowledge	Negotiation and Contract Mgt							
<div>Daily Execution</div> <ul style="list-style-type: none">Aligned to category plan<ul style="list-style-type: none">Business unit partnership - project changes, changes in material demand, etc.PO placementInventory planning	<div>Buyer or Buyer/Planner</div> <table><tr><td>PO Execution in ERP</td><td>Procurement Rules</td></tr><tr><td>Low \$\$ Sourcing and Negotiation</td><td>Business Partnership</td></tr><tr><td>Demand Planning</td><td>Material Planning</td></tr></table>	PO Execution in ERP	Procurement Rules	Low \$\$ Sourcing and Negotiation	Business Partnership	Demand Planning	Material Planning	<ul style="list-style-type: none">Develop and employ equation based planning algorithmsIntegrate into the project planning process to account for impacts on material forecasts <p>Need: JEA currently has 12 Buyers. Reallocate Buyers to support Sr. Buyer category structure before hiring additional headcount</p>
PO Execution in ERP	Procurement Rules							
Low \$\$ Sourcing and Negotiation	Business Partnership							
Demand Planning	Material Planning							

Supply Chain - Strategy, Operating Model, and Focus

There are opportunities for JEA to utilize 3rd Party resources for strategic and tactical needs

- JEA needs a more strategic procurement function, which requires access to greater numbers of high quality buyers
- Organizations typically contract more tactical functions related to reporting, analytics and purchase order execution
- Organizations typically retain activities related to strategy, sourcing decisions, contract negotiation and supplier adherence
- 3rd party providers can help bridge category management needs or to handle tactical activities while transitioning to a more strategic skill-set

Activity Set: Strategic Sourcing

Policy & Procedure Development	Opportunity Assessment
Demand Management	RFx Tender Process
TCO & Baseline Development	Contract Negotiations
Market Analysis & Benchmarking	Contract Transition Management

Activity Set: Category Management

Catalog Management	Supplier Master File Management
Supplier Monitoring & Exception Mgt	Supplier Performance Management
Contract Management	Spend Analytics
TCO Management Reporting	Spend Reporting

Activity Set: Procurement Operations

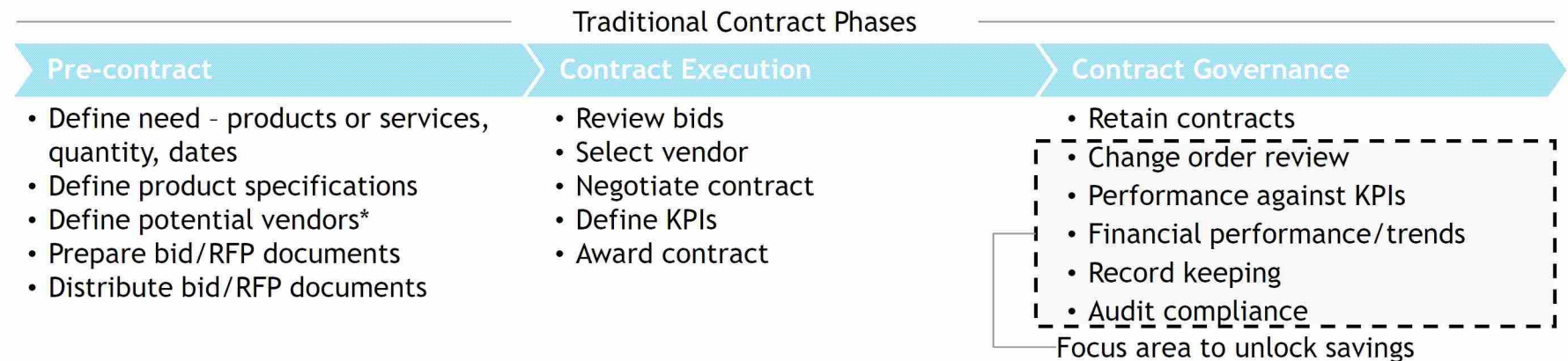
Procurement Planning	Expedited PO Processing	PO Triage and Close
PR Processing	Receiving/Returns	Spot Buying
PO Processing	P-Card Administration	Document Management

Key

Not Typically Shared/Sourced
Less Commonly Shared/Sourced
Most Commonly Shared/Sourced

Supply Chain - Contract Management

JEA needs a more robust contract management function to ensure suppliers meet their contractual requirements



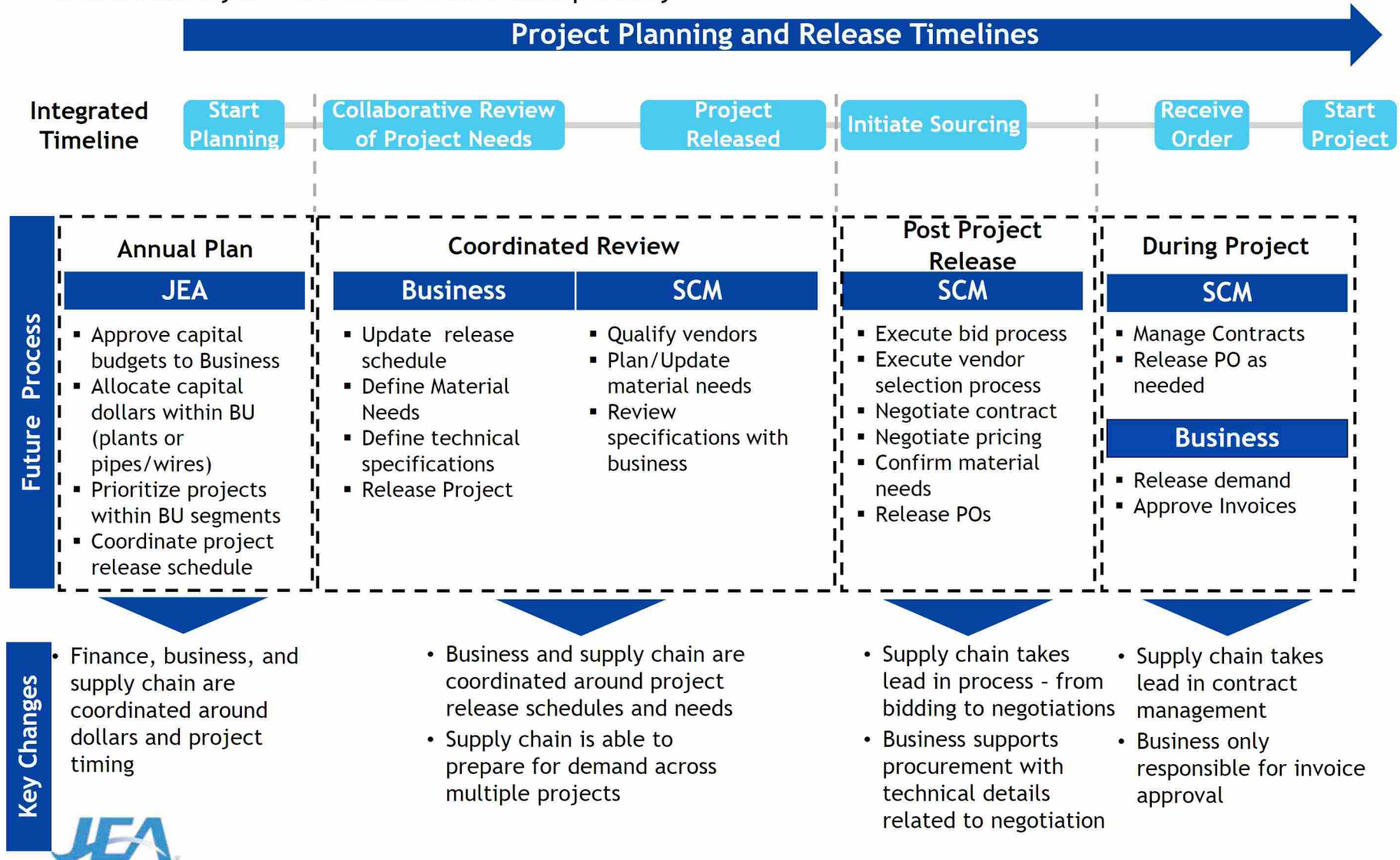
Findings	Opportunity Areas	Savings
<ul style="list-style-type: none"> Business currently leads primary negotiations with vendors because Supply Chain does not have the headcount or technical knowledge to lead the process The contracts function is reactive rather than proactive, responding only when the business notifies contracts of an issue There is not a neutral third party, or a consistent three-way match, to review adherence to contracts (billings accuracy, quality, milestone achievements, etc) before payment is made to vendors The organization does not have a robust tracking/evaluation of contracts once they are signed 	<ul style="list-style-type: none"> Supply Chain leads in all contract phases, with Procurement leading phases one and two and Contracts phase three Business define needs and specifications to ensure bids/proposals are accurate from the outset Establish a process to review KPIs for inputs (resources), process (delivery, turnaround, availability, etc), output (quantity), and outcome (desired end result) performance Partner with finance to manage billings (actual vs. billed work, rate accuracy, etc.) and total cost of contract Develop a reporting and audit process that examines JEA and suppliers against key contracts 	<p>\$5-10M</p> <p>Savings based on recoup of 3-6% of 2016 contract project spend (~\$180M) based on detailed contract review</p>

*Vendor definition will vary by whether or not it is a JEA subject spend or not

Supply Chain - Integrated Planning Process

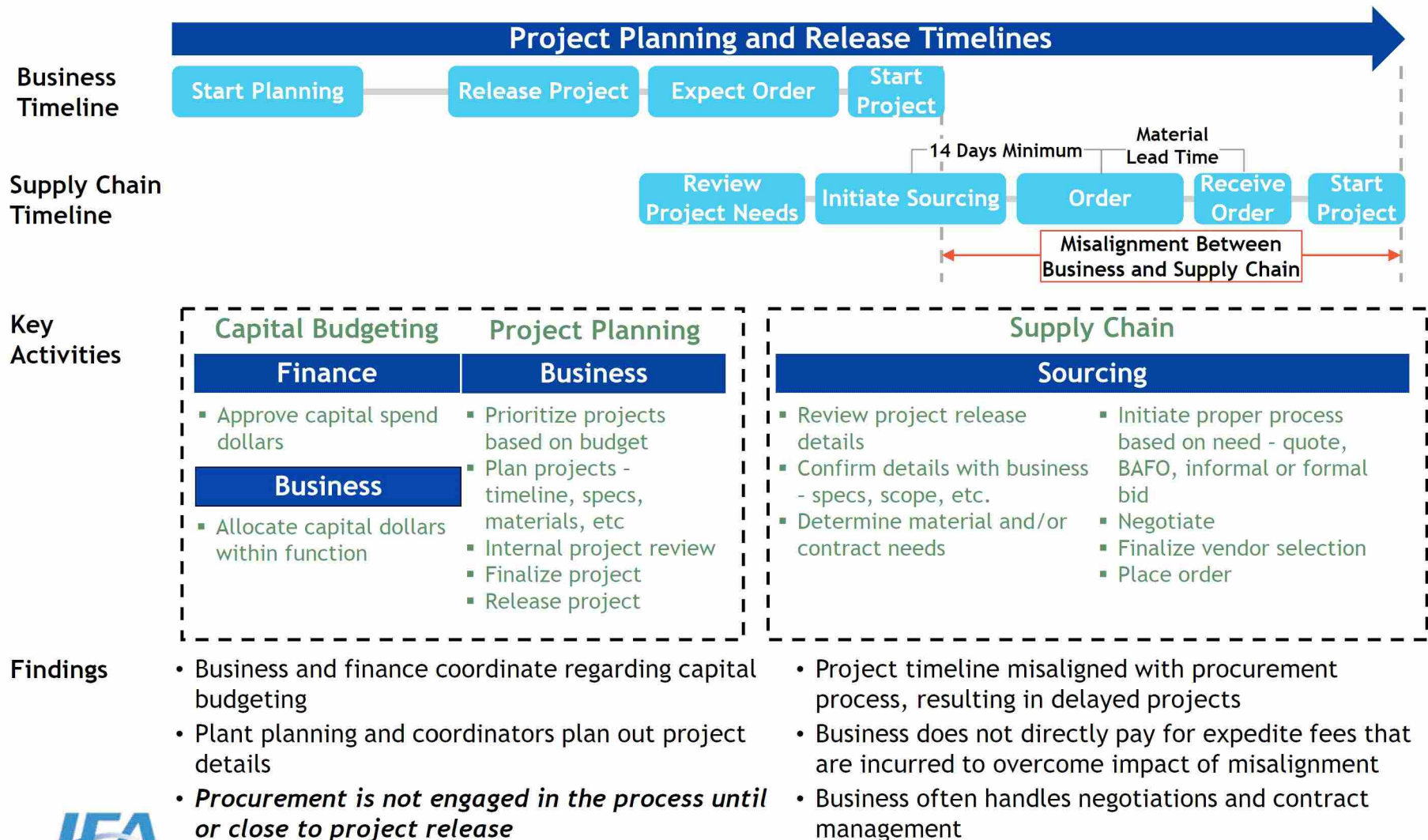
Align project and capital planning processes to incorporate all functions, allow for shared control and accountability as well as increased transparency

Project Planning and Release Timelines



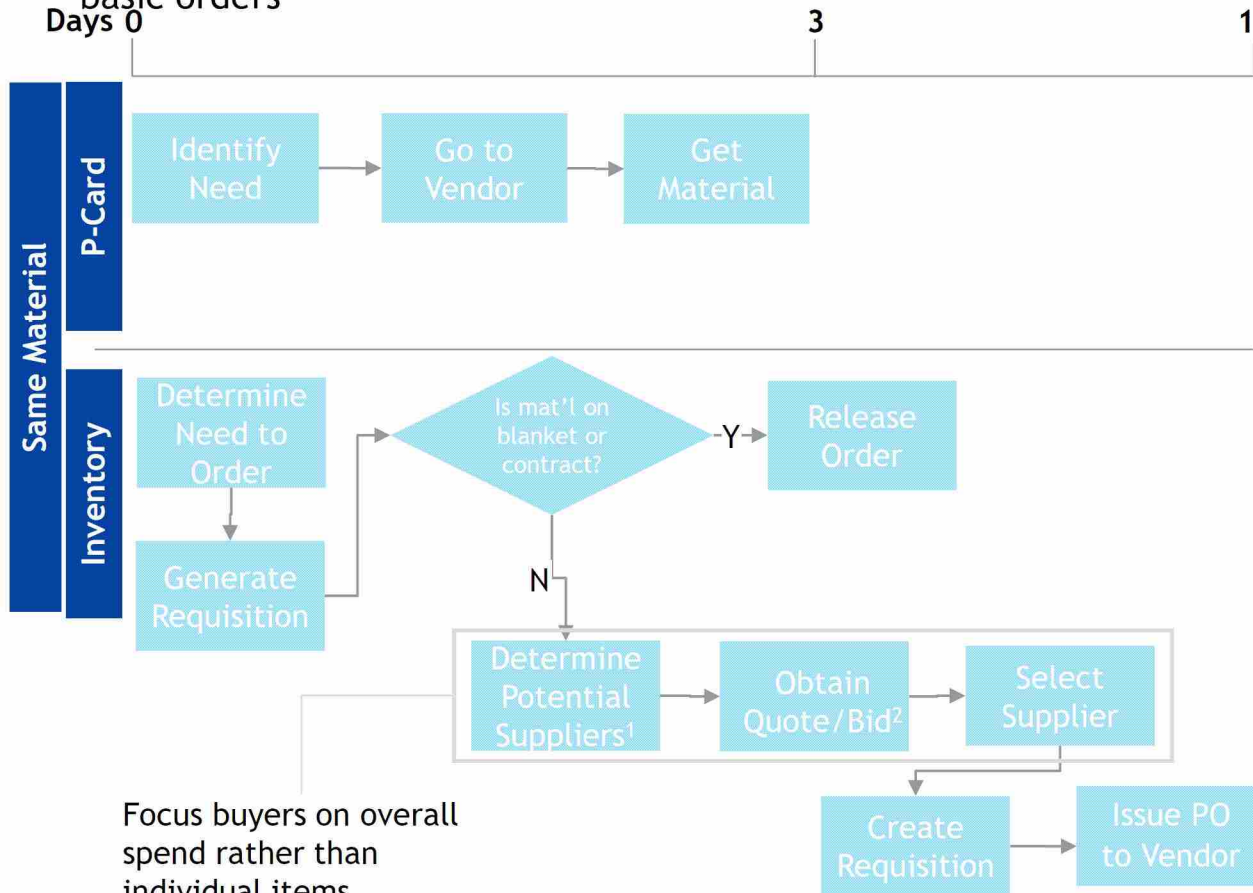
Supply Chain - Integrated Planning Process

The current project planning and release schedule does not have full coordination of timelines or allow for shared control or accountability across the organization



Supply Chain - Policies and Procedures

Procurement policies and procedures drive the Business to use P-Cards over POs due to cycle time for basic orders



Takeaways

- Sourcing steps for low dollar items are generally JEA imposed and can be changed via departmental review
- Procurement policy drives increased cycle time for ordering
 - Target cycle time for non-contract or blanket PO is ~14 days
 - Cycle time for Contract PO or Blanket release is ~3 days
- End users can utilize P-Cards and have immediate access to materials
- Procurement depends on P-Card spend to reduce demand on Buyers
- P-Card spend is largely uncontrolled, leaving room for variation in part quality and reduced opportunity for leveraging spend with suppliers



Note:

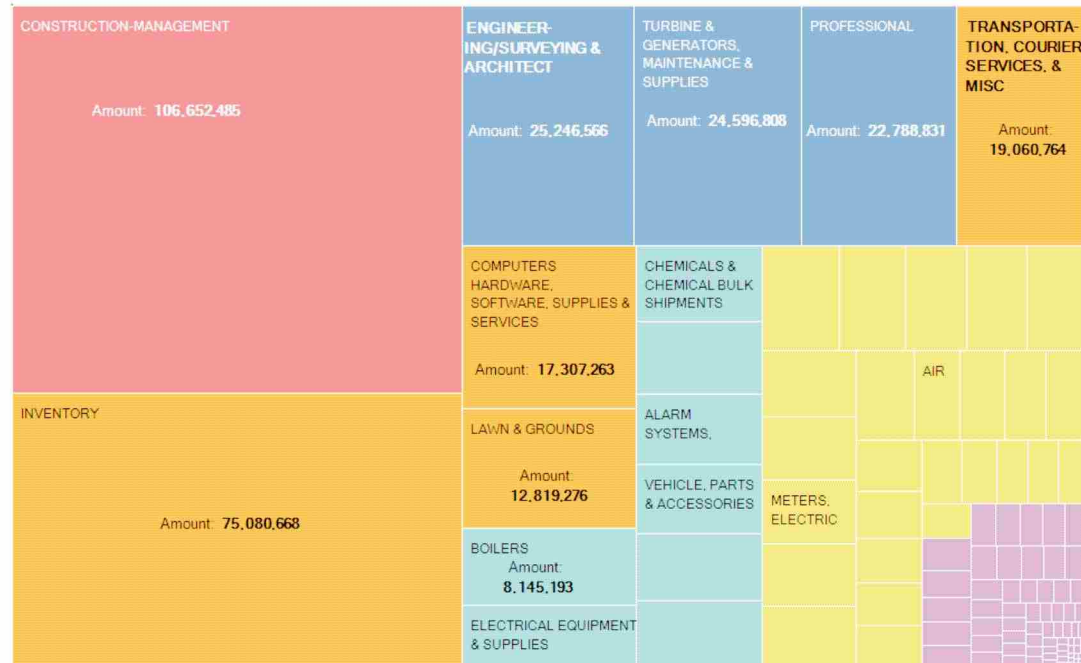
1) Number of required suppliers to contact varies by spend threshold

2) Quote requirements - posting, written or verbal, etc. varies by spend threshold

Supply Chain - Spend Reduction

In order to achieve savings, the organization will need to focus on construction and inventory spend, with additional opportunities categories with spend >\$1M

Top Category Spend



Procurement Category Description (group) 1

- <\$1MM Spend
- \$1MM - \$5MM Spend
- \$5MM - \$10MM Spend
- \$10MM - \$20MM Spend
- \$20MM - \$50MM
- >\$50MM Spend

- Non-Fuels spend was ~\$500M in 2016
- ~\$400M in spend is controlled by Procurement
- ~8 categories drive more than 60% of spend
- Construction management and inventory account for ~35% of spend
- The organization dealt with ~1400 suppliers in 2016
- There are ~400 suppliers for inventory
- There are ~54 suppliers for construction management services
- There are approximately 114 suppliers for other construction related services (design-build, etc)

Organization can reduce spend by \$13-27M by reducing spend across select categories

Supply Chain - Spend Reduction & Supplier Proliferation

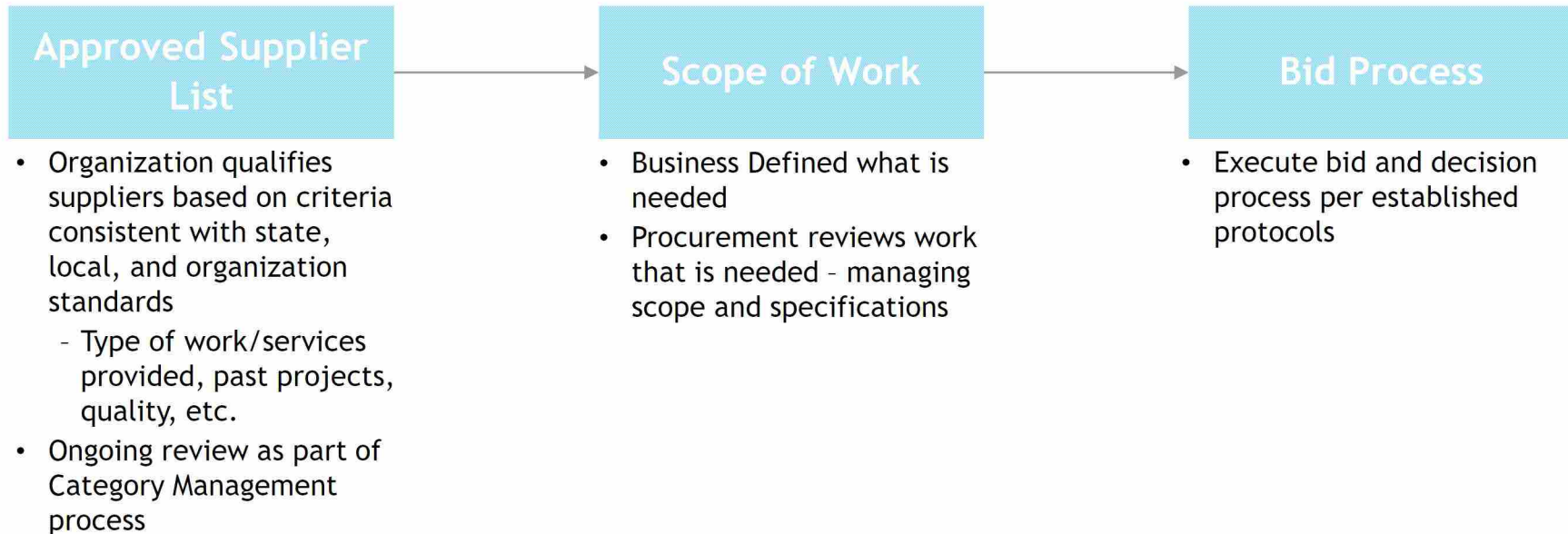
Water has significant supplier proliferation and has the most opportunity to consolidate suppliers through more effective project scheduling and bidding

Business Unit	Project Grouping	Total 2016 Spend	Suppliers Used	Average Spend w/ Supplier
Electric	Substation Construction	5,619,644	2	2,809,822
	Community Construction	3,495,273	9	388,364
	Street light conversion	3,000,000	3	1,000,000
	Facility	93,585	1	93,585
	Fiber Cable	4,460	1	4,460
Electric Total		12,212,961	16	763,310
W/WW	Wastewater Facility	44,632,395	16	2,789,525
	WTP	15,624,278	33	473,463
	Pump Station	15,156,204	11	1,377,837
	Community Construction	13,614,121	56	243,109
	Electric	3,172,890	5	634,578
	Reclaimed Water	1,189,577	2	594,789
	STPO Program	1,014,131	57	17,792
	Lift Station	35,928	1	35,928
W/WW Total		94,439,524	181	521,765
Grand Total		106,652,485	197	541,383

Findings	Opportunity	Savings
<ul style="list-style-type: none"> Electric has fewer construction projects, but higher average spend per supplier than water W/WW spend and averages are driven-up by Blacks Ford expansion W/o Blacks Ford, spend is reduced by \$39M and average supplier spend drops to ~\$308K for water 	<ul style="list-style-type: none"> Plan project needs for year, identifying where request is same or similar, or where work is repeated Where possible, bid larger pieces of work out at once - full scope versus chunks of work Bid more maintenance work as “ongoing work” 	\$5-12M

Supply Chain - Cost Reduction

Opportunities exist to reduce costs with Engineering/Surveying and Architecture, Turbine and Generator Maintenance and Professional Services



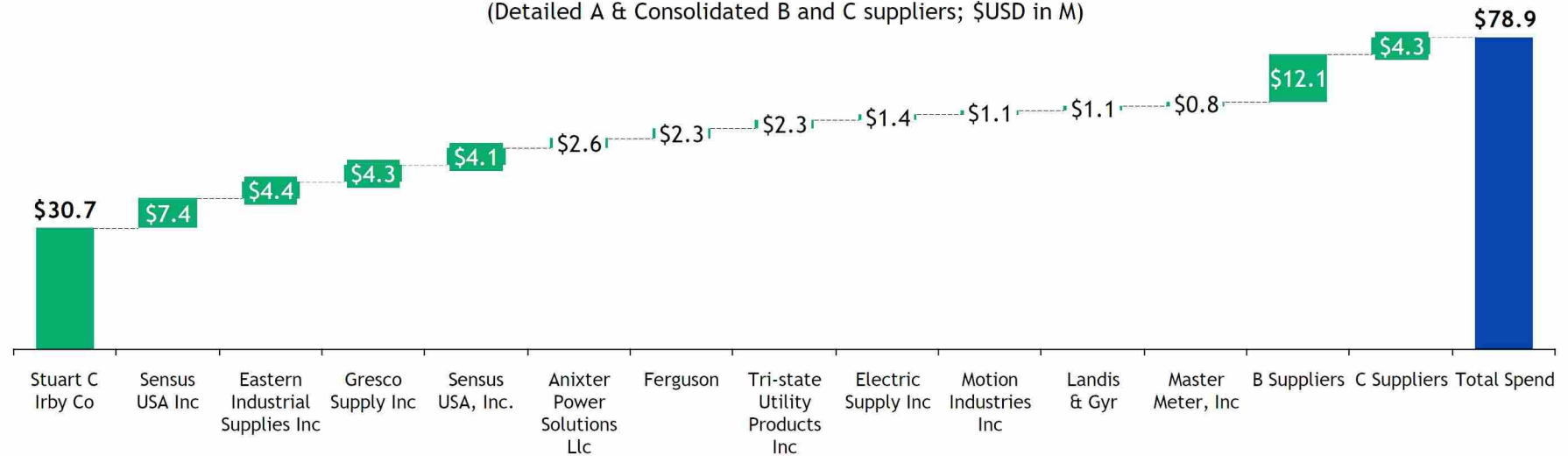
Observation	Opportunity	Savings
<ul style="list-style-type: none"> Engineering category has >60 suppliers CCNA applies primarily to the Engineering/Surveying and Architecture spend categories Turbine and Generator spend has >30 suppliers, with GE responsible for 93% of spend Outside of GE, average spend is ~\$50K/supplier Professional services has >200 suppliers 	<ul style="list-style-type: none"> Reduce number of suppliers Develop and manage approved supplier lists (ASLs) based on more defined qualification criteria Review specifications and scope of work to ensure work is not directed to specific vendors Assess if OEM work and/or suppliers are needed for all equipment 	\$2-4M

Supply Chain - Inventory Spend Reduction

The inventory function deals with a large number of suppliers and is focused on individual part price rather than blended pricing with suppliers

Supplier Breakdown

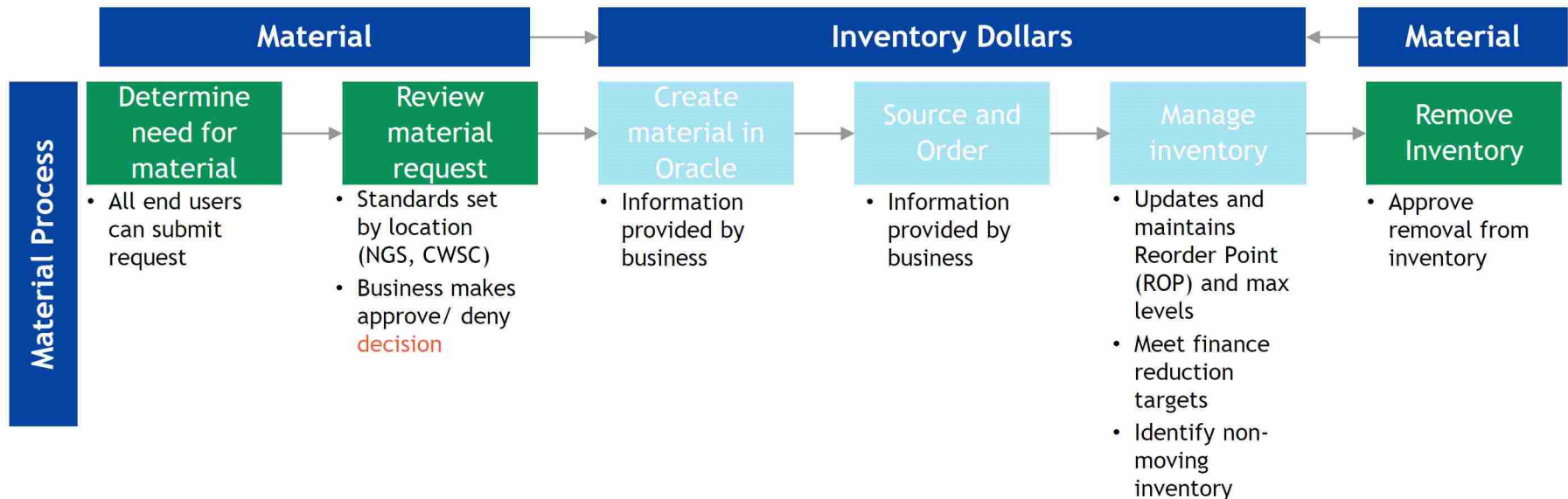
(Detailed A & Consolidated B and C suppliers; \$USD in M)



Findings	Opportunity	Savings
<ul style="list-style-type: none"> Inventory function deals with approximately 425 different vendors 79% of Procurement spend is handled by 12 suppliers ~\$61M in spend is on blanket POs, which accounts for 45 suppliers Buyers conduct individual sourcing activities for the remaining \$17M in spend 	<ul style="list-style-type: none"> Reduce/Eliminate spend with small suppliers “the tail” Move to a “basket of goods” focus with suppliers to focus on total spend reduction rather than piece by piece reduction approach Investigate consolidating small dollar supplier spend to distributors to reduce supply base and improve leverage for broader price reductions Drive a more robust second sourcing review for materials that are purchased from OFM 	<p>\$6-11M</p> <p>Assumes 7-14% savings, which has been achieved in prior efforts</p>

Supply Chain - Inventory Planning & Dollar Reduction

Decision making for inventory dollars, inventory parts, and associated targets needs to reside with the same party



Impact

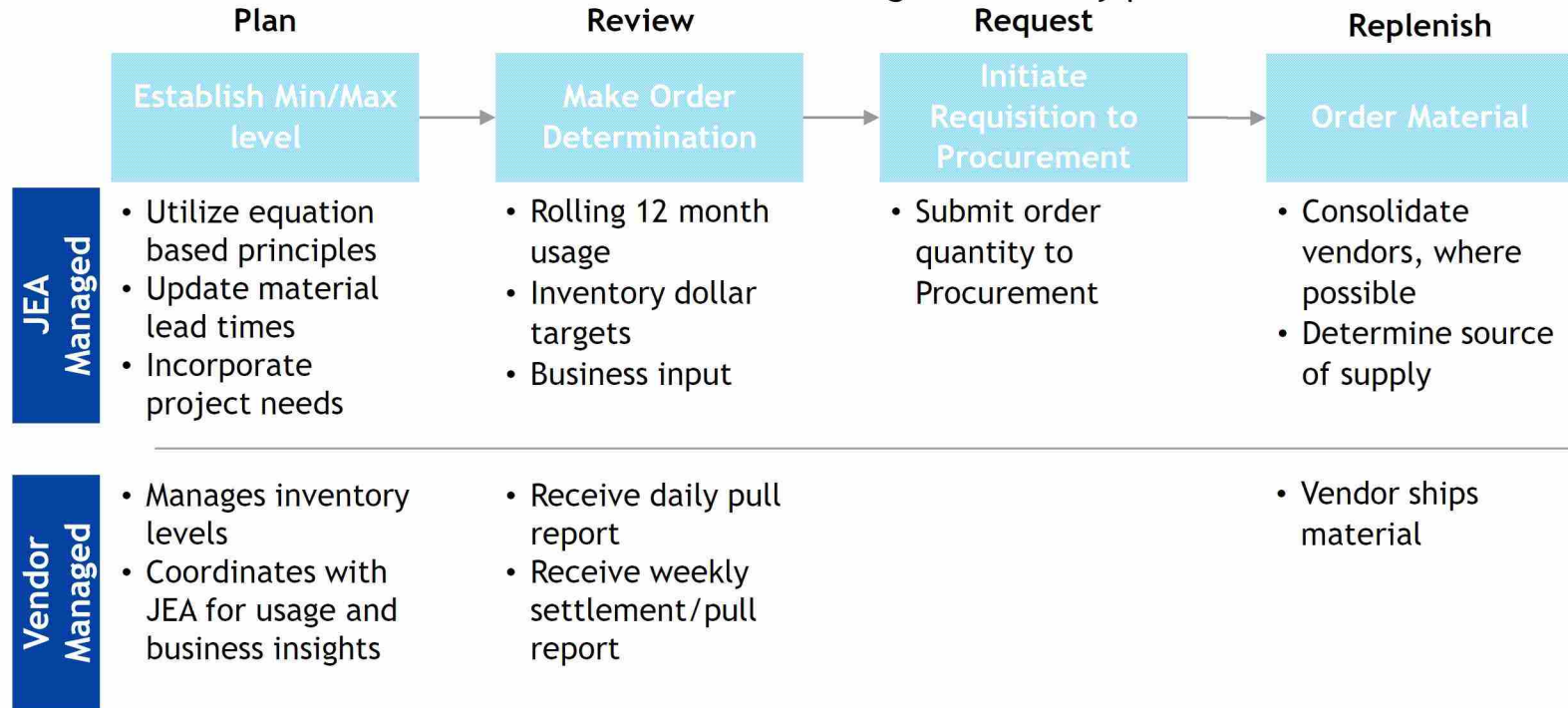
On-Hand Inventory Dollars (4/28/2017 in \$MM)				
Inventory Classification	Classification Description	Northside Generating Station	Commonwealth Service Center	Total Dollars
Class A	>15K Issues	\$4.52	\$13.12	\$17.64
Class B	5-15K Issues	0.96	1.65	2.62
Class C	1-5K Issues	0.23	0.49	0.72
Class D	100-1K Issues	0.09	0.16	0.24
Class E	<100 Issues	12.87	11.11	23.98
	Unclassified	0.06	0.00	0.06
Grand Total		18.73	26.53	45.26

Class E (Slow/Non-moving) Inventory			
User Item Type	Total O/H Dollars (\$MM)	% of Total O/H Dollars	Cumulative %
JEA GENERATION	\$15.44	64%	64%
JEA SUBSTATION	4.02	17%	81%
JEA UNDERGROUND DISTRIBUTION	1.81	8%	89%
JEA OVERHEAD DISTRIBUTION	0.99	4%	93%
JEA WATER	0.41	2%	95%
Other	1.30	5%	100%
Grand Total	23.98		

Inventory can be reduced by \$11-23M by taking an aggressive stance with slow/non-moving parts
 (As of August 1, \$17.4M in inventory has not been issued in at least 5 years)

Supply Chain - Inventory Planning & Management

Evaluate material planning methodologies and options to determine when it is best to plan inventory in-house and when it can be transferred to a vendor managed inventory process



JEA Managed Inventory Planning

- Planners move from “gut feel” or “tribal knowledge” to Oracle based or industry standard equations to establish ROP/Max levels
- Lead times are analyzed to compare actual (delivery) versus standard (vendor stated)
- Planners determine how to incorporate project demand - increase ROP/Max levels or issue one-time orders

Vendor Managed Inventory Planning

- Vendors are responsible for planning inventory levels and maintaining stock on shelves
- Vendors coordinate with JEA planning to account for changes in usage and changes in stocking levels
- Material replenishment occurs faster by removing Planning and Procurement

Supply Chain - Process Automation & Oracle Enhancement

Procurement

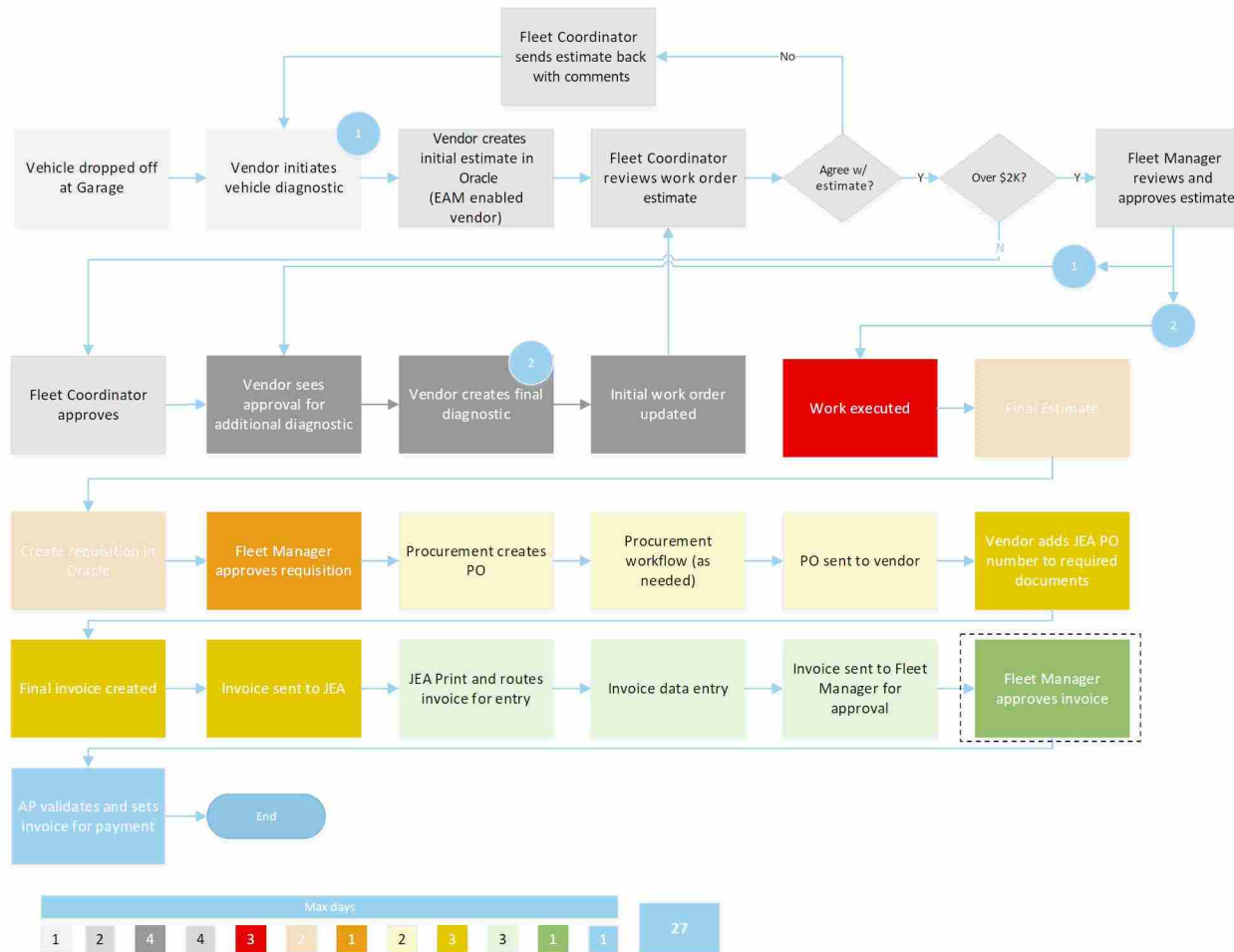
- **Automation** - Automate the release of blanket orders. Currently a buyer clicks to release each blanket PO release (500 clicks/Day * 20 seconds/click)
- **Oracle Utilization** - Better utilize Oracle functionality to remove tactical steps from/demand on Procurement
 - **iSupplier** - Allow electronic invoices to be loaded directly by suppliers
 - **eSourcing** - Allow suppliers to load contract prices directly to system after pricing approval
 - **Catalog** - Create catalogs to bridge customer needs and Procurement ability to support
- **Procurement Category Change** - Allow Buyers to reclassify Procurement category selection for end user requests that have been misclassified. Will improve category spend reporting and direction to correct Buyer
- **Policy Changes** - Review governance standards to determine if they help or hinder decision making times (e.g. quote for all non-contract/blanket PO inventory)

Inventory

- **Business Credit** - Remove ability for business to place materials procured outside of JEA inventory buying channels into inventory and receive credit against department for material
- **Unit of Measure** - Evaluate use of variable unit of measures (base, purchase, issue). Currently single unit of measure is used and may not reflect how material is used or stored
 - **Example:** Bolt that is purchased in kilograms (kg) and issued in eaches. Inventory group physically counts and bags bolts after goods receipt so they can be issued in way business needs material

Fleet - EAM Impact

Fleet EAM process has multiple duplicate steps and has increased admin time for managers and vendors



Takeaways

- Admin time has expanded dramatically within EAM - change of ~10-12 days from previous process
- New process puts additional efforts on vendors by having them enter all work order information in both JEA Oracle and their own systems
- Any Vendor not approved to enter directly into Oracle must have their work manually entered by a Fleet Coordinator
- New process has multiple approvals that are duplicative based on various JEA audit and Procurement requirements that should be reviewed to determine where waivers can be applied
- Vendors are at risk with large OEMs because cycle time metrics are based on full time (work order begin to final invoice) versus work time (e.g. systems report 15-30 days to complete, not 1-5).
- Vendors have said data entry time will result in higher charges to JEA in the future

Fleet - Planning and Visibility

The Fleet organization needs more function specific tracking and reporting to allow it to become more proactive with the organization and with vendors

Current Capability	Common Fleet Management System Components	Planning Capability Enabled
Data collected by 3 rd party vendor and reported annually	Vehicle Utilization	Monitor and react to utilization of fleet through real time access to data at vehicle level - time, days, etc.
EAM tracks maintenance history, but not to same level of detail as FMS	Maintenance History	Information gathered in reportable way to allow searches by maintenance type or part level aiding in such tasks as recall and warranty
Fleet does not have ability to do trend analysis to see common repairs, etc.	Performance Trends	Proactively monitor and react to trends to understand if issues are occurring with specific vendors, types of repairs, parts, or vehicle types
Fleet can do plan for time based, but not mileage based usage	Maintenance Planning	Plan for both time based and mileage based PMs more effectively
Fleet does not track fuel usage to the vehicle level	Fuel usage	Track fuel usage of Fleet to better plan for spend, identify variations within work crews, types of vehicles, and planning strategies

Appendix

Supply Chain - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Define procurement strategy and structure	<ul style="list-style-type: none"> Transition from admin/support to strategic partner Structure organization to provide more category management support - people, technical skill-sets, category knowledge Determine skills that must remain in-house versus outsourced if skills cannot be obtained Establish roles and responsibilities for key activities - including final vendor determination, contract adherence, and vendor negotiation 	↓ Reduce the amount of tactical work Buyers currently execute	↑ Business to receive more strategic support	↑ Headcount with greater skillset needed	↓ <i>Politicians likely to view negatively if moved out of JAX</i>		↑ Procurement better able to support business needs		
Implement robust contract management program	<ul style="list-style-type: none"> Establish standardized contract review process Challenge suppliers for improper billings, rates, etc Collect monies that have been incorrectly paid Reduce amount of control Business has for review and approval of payments beyond quality and/or stage completion 	↑ SCM org. to take-on more detailed reviews	↑ Management and review handled by SCM org.	↓ Likely recoup. of dollars or reduced payment	↑ Showing responsibility for taxpayer dollars		↑ Responsibility for review and management shifted from Businesses	\$5 3% savings since contract mgt. not current executed	\$10 6% savings since contract mgt. not current executed
Integrate SCM within standards and project planning	<ul style="list-style-type: none"> Bring Procurement and Material Planning into project planning and execution cycle earlier to better coordinate vendor bid/negotiation timelines and material supply 	↑ Procurement is not currently engaged in all stages of the process	↑ Procurement able to plan and prepare for projects	↓ Better discounts and reduced expedite fees			↑ All parties understand and future demand		

Supply Chain - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target	Reach
Reduce spend across inventory and non-inventory categories	<ul style="list-style-type: none"> Reduce spend in construction, engineering, professional services, and turbines and generators Reduce spend in inventory categories 	↓ Reduce number of suppliers to deal with	↑ Spend more time with key suppliers	↓ Spend reduced through various sourcing methodologies			↑ Reduced costs for capital and MRO spend	\$13	\$27
Develop inventory standards and goals across the organization	<ul style="list-style-type: none"> Supply chain and Business must agree on target inventory dollar levels across the organization Common standards for inventory addition, removal, and critical parts classification must be established for service centers and plants Water treatment needs to have more items brought into inventory 			↓ Reduce inventory dollars on-site			↕ <i>Positive net impact due to better mix of inventory</i>	\$13	\$23
Review new EAM process to reduce process time	<ul style="list-style-type: none"> New EAM process takes ~12-15 days of processing time for expenses >\$500 to >\$2,000 due to administrative requirements - data entry, duplicate approvals, etc. Vendors are impacted by changes due to delta between vehicle repair time (hours/days) versus paperwork timeframe (days/weeks) 	↓ Reduce data entry and duplicate approvals	↑ Work with vendors and customers rather than execute data entry	↓ Reduce potential price increases from vendors			↑ Reduced Admin time and accurate data reporting		

Supply Chain - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target	Reach
Integrate Fleet into capital and resource planning process	<ul style="list-style-type: none"> Business needs to integrate Fleet into capital planning to ensure new vehicle are on order and/or available as vehicles reach end of life, territories expand, crew numbers expand, etc. 	↓ Reduce data entry and duplicate approvals	↑ Business gets vehicles when they need them	↓ Reduce rental costs due to vehicle shortages		↑ Completion of repairs in a timely manner	↑ Crews have vehicles available when needed		
Investigate Fleet Management System	<ul style="list-style-type: none"> Fleet remains reactionary to customer issues with vehicles because is not able to track trends within the fleet, including common maintenance issues, part recalls, evolving trends, etc. 	↑ Fleet doesn't currently have detailed analytics to track and react	↑ React to vendors and customers	↓ Implementation reduced by warranty work and ability to react earlier			↑ Better up-time by understanding and reacting to trends		
Automate processes and enhance use of Oracle	<ul style="list-style-type: none"> Utilize Oracle functionality to allow for iSupplier - allow suppliers to load invoices, eSourcing - allow loading of contract pricing Automation - allow for automation of routine processes (example: blanket order releases) 	↓ Reduced data entry activity	↑ Release orders, update pricing, and process invoices faster	↓ System implementation cost to be offset by more efficient use of employees			↑ Resources can be allocated to support Businesses rather than execute tasks		

Technology

Assessment

Capability Alignment with Utility 2.0



- TS in its current design not well-suited for Utility 2.0, IT and OT are separated
- Technology strategy and comprehensive enterprise architecture are not employed
- Cost and effectiveness opportunities exist through contracted services

Comparative Metrics

Total IT Cost Per End User



- IT cost performance is 16% higher than that of the peer group median²
- Current staffing and skills are misaligned with needs of the business resulting in less focus on developing technology strategy and planning

Alignment

Demand Levels



- Demand is high, given skills levels and transactional relationship with business - will go higher with OT

Service Levels



- TS users' needs not being met - e.g. IT project outcomes are not delivering needed outcomes

Cost Levels



- Labor rates and staff size are higher than highest cost performing peers

Opportunity

There is between \$5M and \$9M in annual savings to fund transforming technology services into a broader technology operations that provides IT and OT effectively across JEA.

Savings are generated by leveraging contracted services in those functions where cost and service is misaligned.

Identifying these functions requires the development of enterprise technology strategy and a comprehensive enterprise architecture to provide the prioritization, processes, protocols and accountabilities necessary to build a robust technology capability.

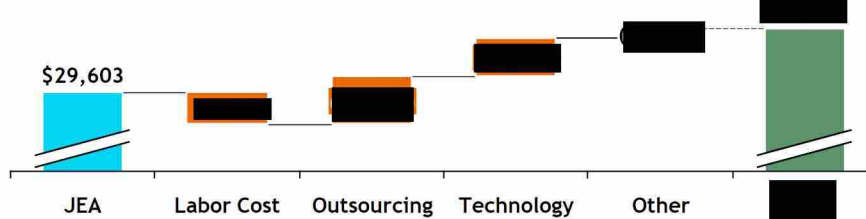
It also will identify the need for an enterprise data management capability.

There is also the opportunity to self-fund the automation of manual processes across JEA.

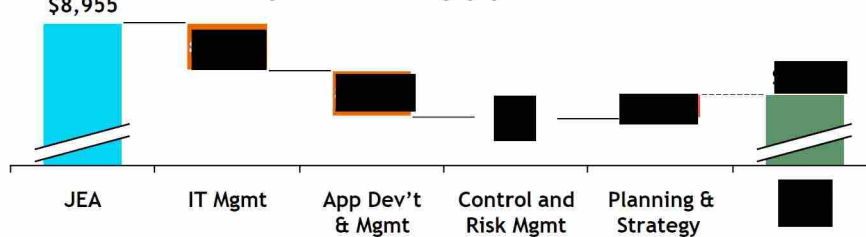
1. "IT" is based on the function performed and includes all cost centers that roll up to the Chief Information Officer
 2. Different than the Gartner study, Deloitte compared JEA to peers across all industries based on revenue and number of employees
 Source: Deloitte Global Benchmarking Center

Technology¹ - Findings and Insights

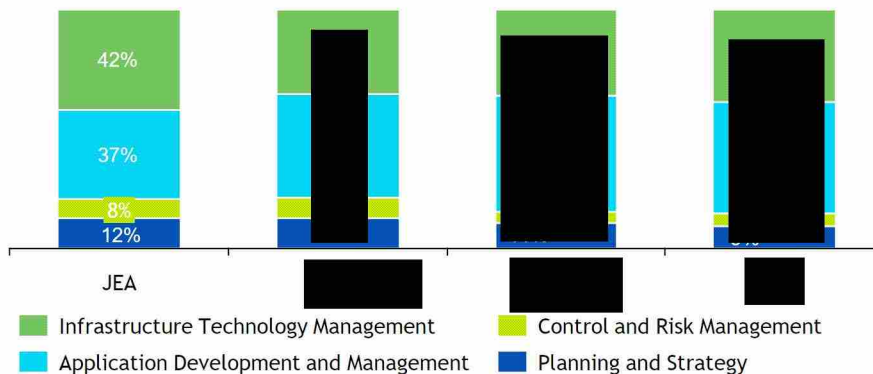
IT cost gap normalized to JEA revenue (000s)³



IT process cost³ gap per end user

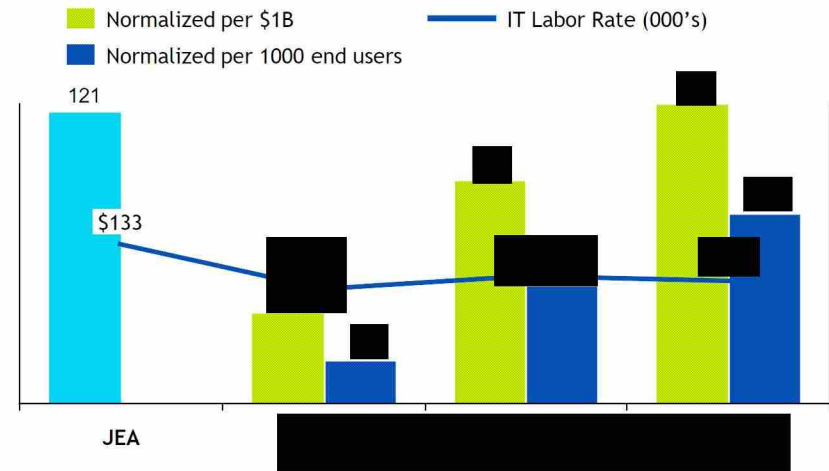


IT staff distribution across capabilities



Suggested IT staff size

(Based on staff per \$1B in revenue and staff per 1,000 end users)



Key Findings and Insights

- Cost levels are misaligned, based on total end users, the IT staff size is greater than the [redacted], and...
- ...IT labor rate is comparatively high, lowering it to match the [redacted] IT rate could result in about \$2.7M in savings
- Though, staff allocation is weighted away from application development and management (21% lower than the median), from a process cost standpoint it is more expensive than the median
- Whereas, the planning and strategy process is underfunded comparatively

1. "IT" is based on the function performed and includes all cost centers that roll up to the Chief Information Officer.

2. Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.7B to illustrate comparisons

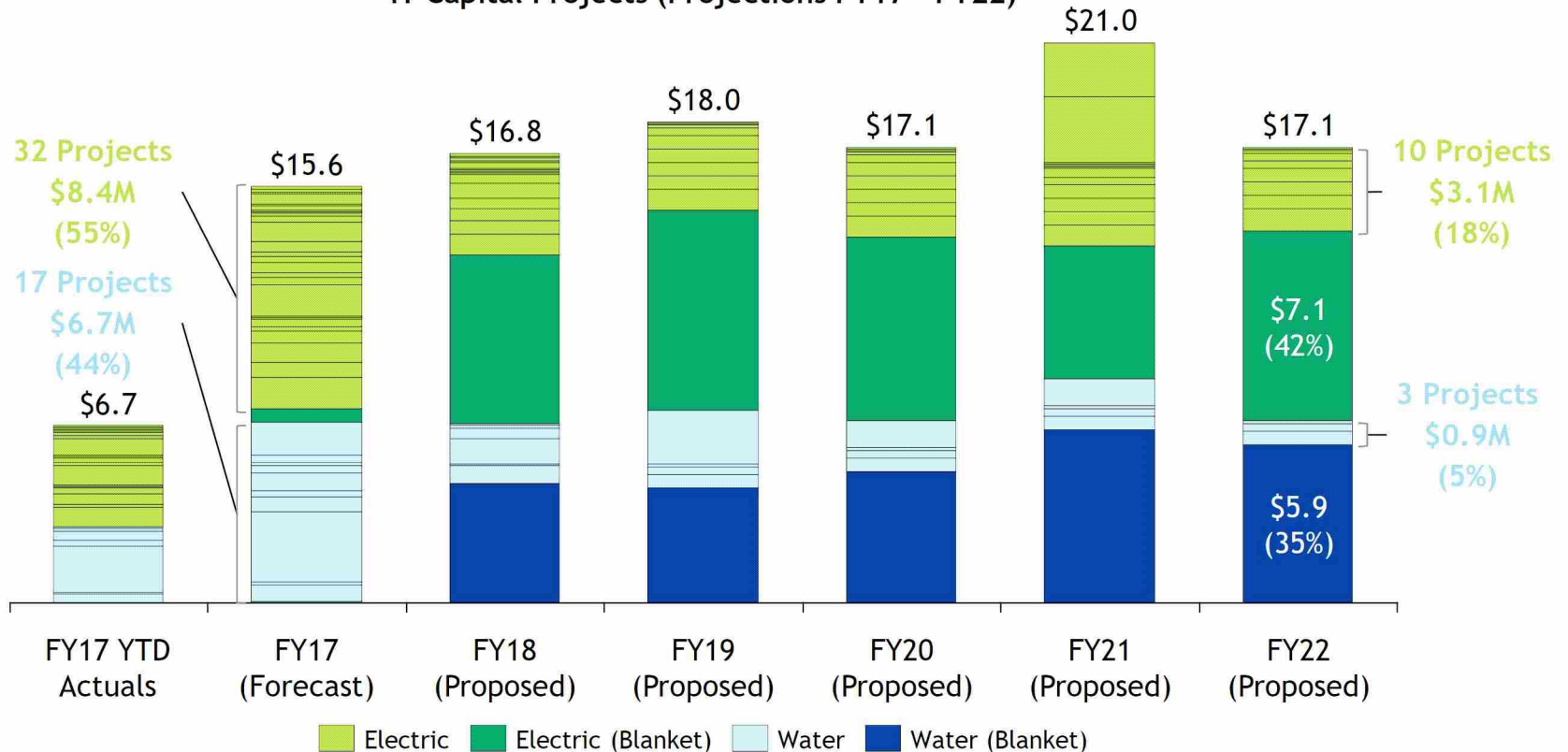
3. Process cost includes all labor and outsourcing costs - Labor includes all salaries and wages, benefits and incentives; outsourcing includes professional services

4. Low cost performer is based on the peer set in the first quartile of total human resources cost as a % of revenue, high cost performer is the 3rd quartile of cost as a % of revenue

Source: JEA data, Deloitte Global Benchmarking Center, JEA Employee Records. and Deloitte Analysis

Technology - Findings and Insights

IT Capital Projects (Projections FY17 - FY22)



Key Takeaways and Insights

- IT projects are managed to maintain overall annual IT project budget and there is limited forward planning as evidenced by the “blankets” (assumed capital use for undefined projects) for electric and water
- Project approval is negotiated versus set via strategic prioritization because currently each project is a top priority for someone
- Moreover, on average an IT project manager in FY17 is managing between 4 to 5 projects at one time - challenging the quality of the project management provided

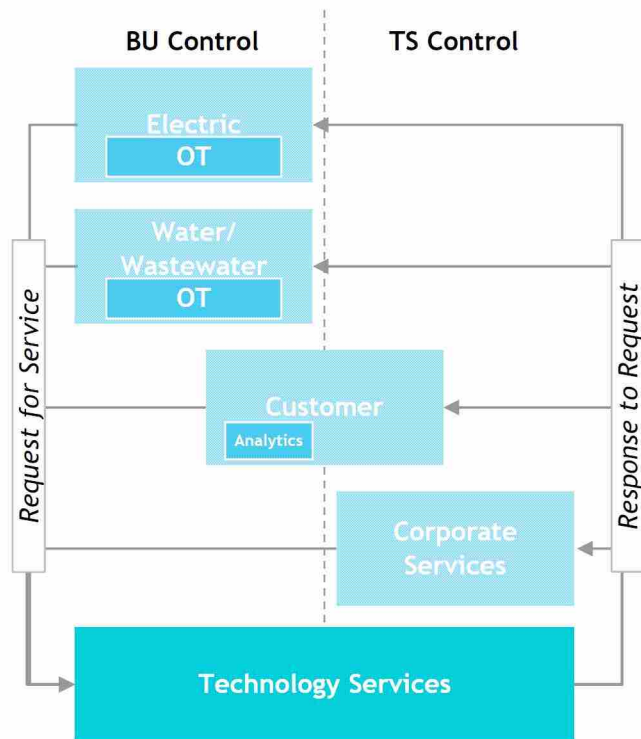
Source: JEA Capital Budget data, Deloitte Analysis

Technology - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target	Reach
Develop enterprise technology strategy that includes a 5 year roadmap, building technology capabilities		
Redesign the TPC to be the technology strategy execution body		
Develop enterprise architecture (EA) capability		
Transition technology project budgets and overall accountability to business		
Assign Technology Operations responsibility for project technical outcomes		
Mandate strict technology project documentation		
Prepare for Agile project development		
Develop enterprise data management capability build plan		
Develop data governance and architecture		
Source technology talent	\$5.2 <i>20% savings from outsour-ced functions</i>	\$9.1 <i>30% savings from outsour-ced functions</i>
Build process automation factory		

Technology Transformation

Current Technology Operations



- Transactional relationship between TS and business units
- IT and OT separate staff, contracting, etc.
- One year focus of current planning combined with employment model limits technology capability building to support Utility 2.0

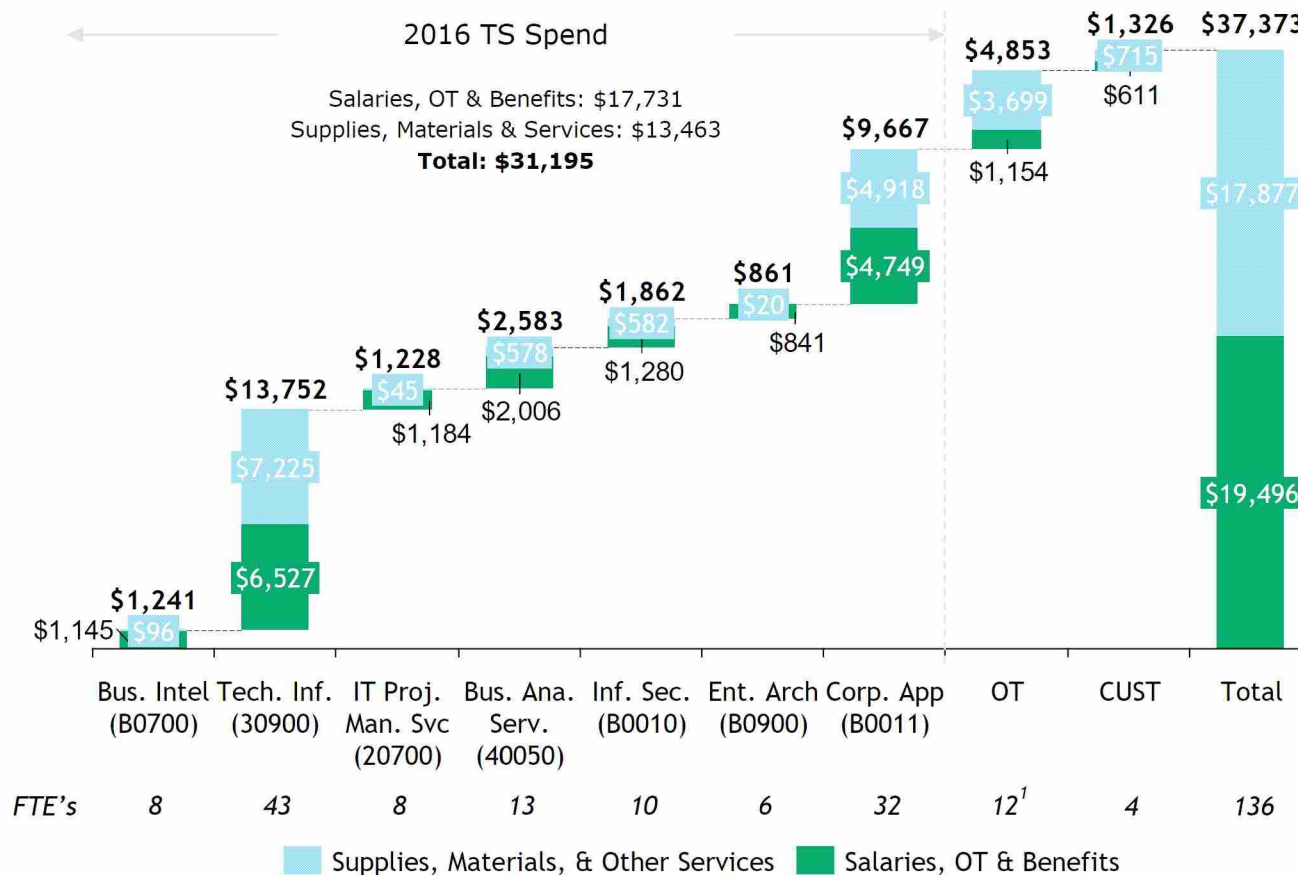
Recommended Technology Operations



- Collaborative relationship between technology operations and business units
- Converged IT and OT platforms based on single technology strategy and architecture
- Sourcing leverages all options available to access needed skills

Total Technology Spend

Total JEA Technology Spend and FTE's Including IT and OT by Cost Center 2016 (\$USD in 000)



- There is approximately \$6.2M in technology spend outside of TS - \$4.4M in supplies, materials and other services
- With minor exceptions technology is provided organically by JEA and hosted internally

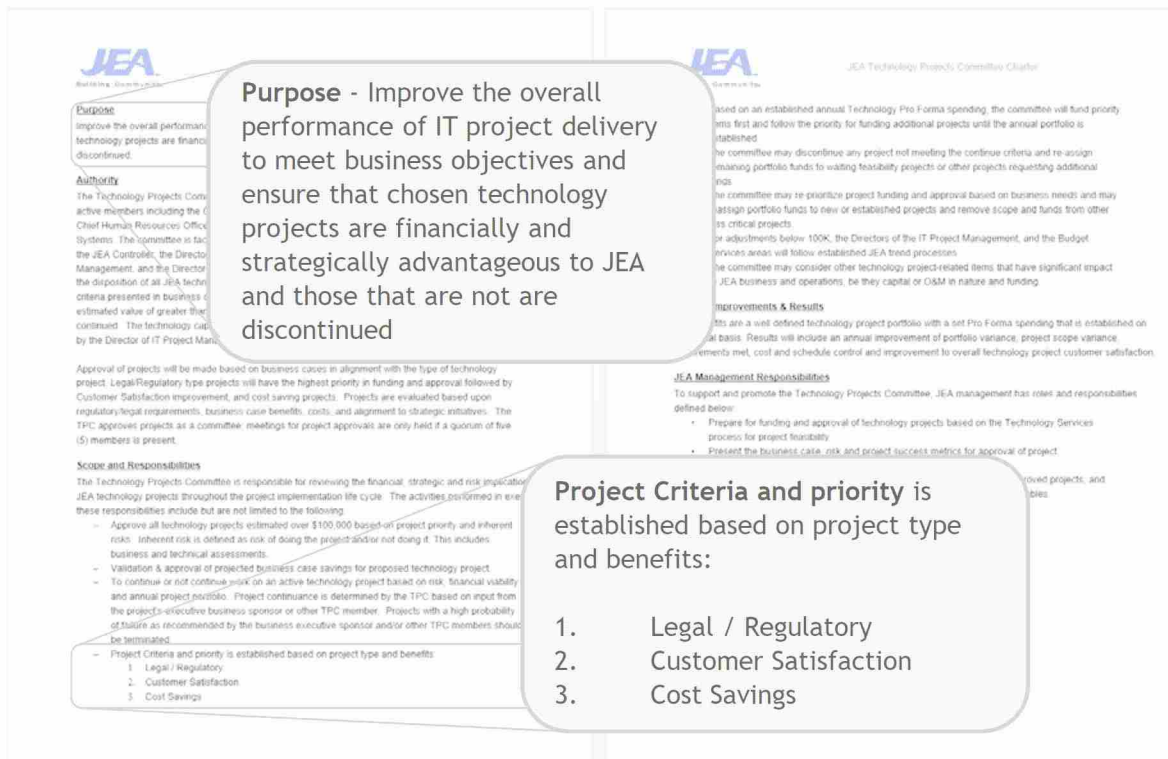
Source: 2016 JEA actual expense data, Deloitte analysis

1. 27 Electrical Instrument Techs spend approximately 20% of their time on OT-related activities, amounting to ~5 FTEs in addition to 6 control system techs, and 1 automation engineer

Current Strategic IT Priority Setting

JEA Technology Project Committee (TPC) Charter

Findings

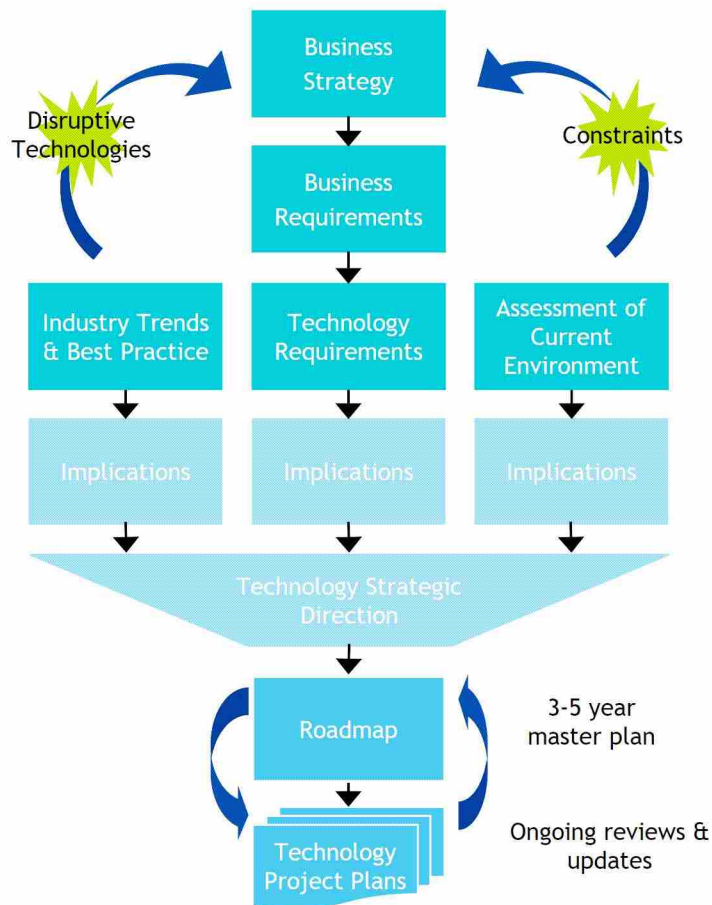


- The budget for IT capital projects sits in TS
- The TPC has become the de facto technology project approval authority within JEA for IT, not OT projects
- The TPC's charter does not include requirements that new systems adhere to JEA's enterprise architecture
- The TPC's charter requires strategic alignment but specifically does not mandate this alignment for project approval or prioritization
- For approval projects do not have to account for change management requirements

Components of an IT Strategy

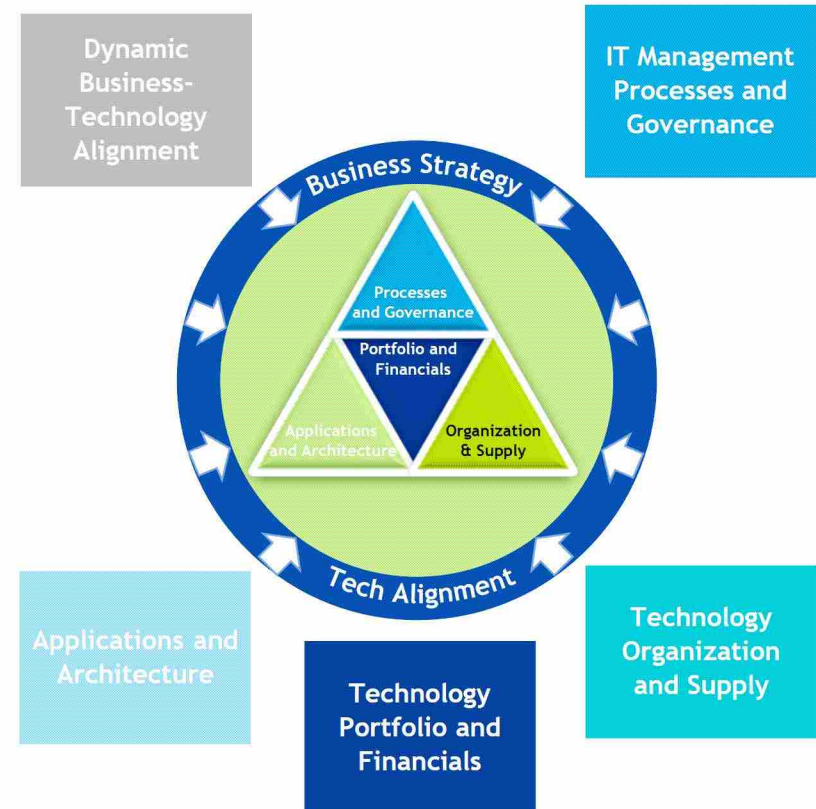
1

“What” are the capabilities needed by the business?



2

“How” can these capabilities be delivered most effectively?

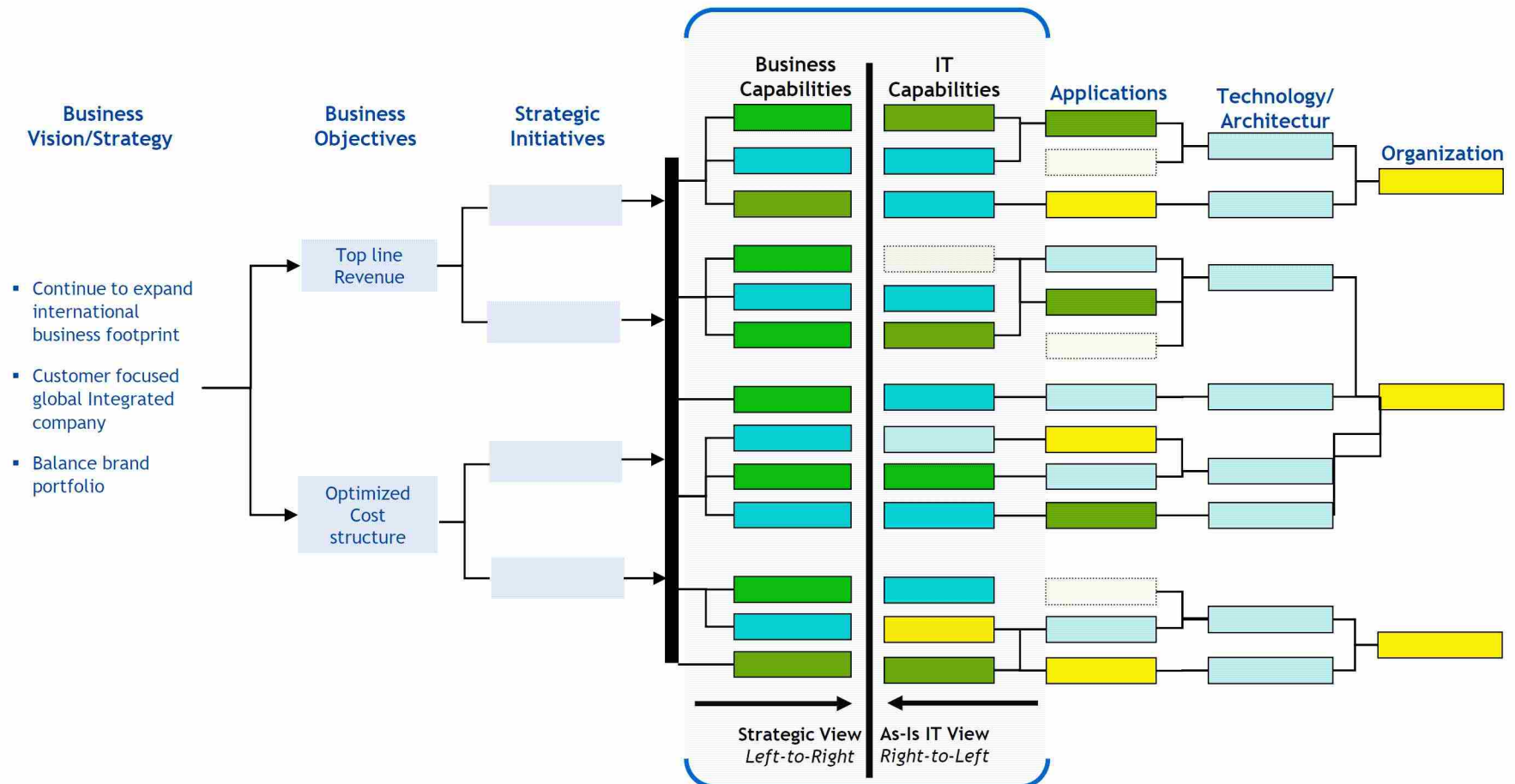


Maximizing the business value from a technology strategy requires alignment between JEA business needs, industry and digital along with a fundamental grasp of the change readiness and change capabilities resident within JEA

Technology Strategy Capability Alignment

“Business Capability” Identification

IT Capability Assessment and Design



“What” Business Capabilities are needed?

“How” to efficiently enable using IT?

Gartner IT/OT Transformation Maturity Model

Level 1
Initial
(where)

Level 2
Developing
(why)

Level 3
Defined
(how)

Level 4
Managed
(what)

Level 5
Optimizing
(who)

Benefits

Area of Focus

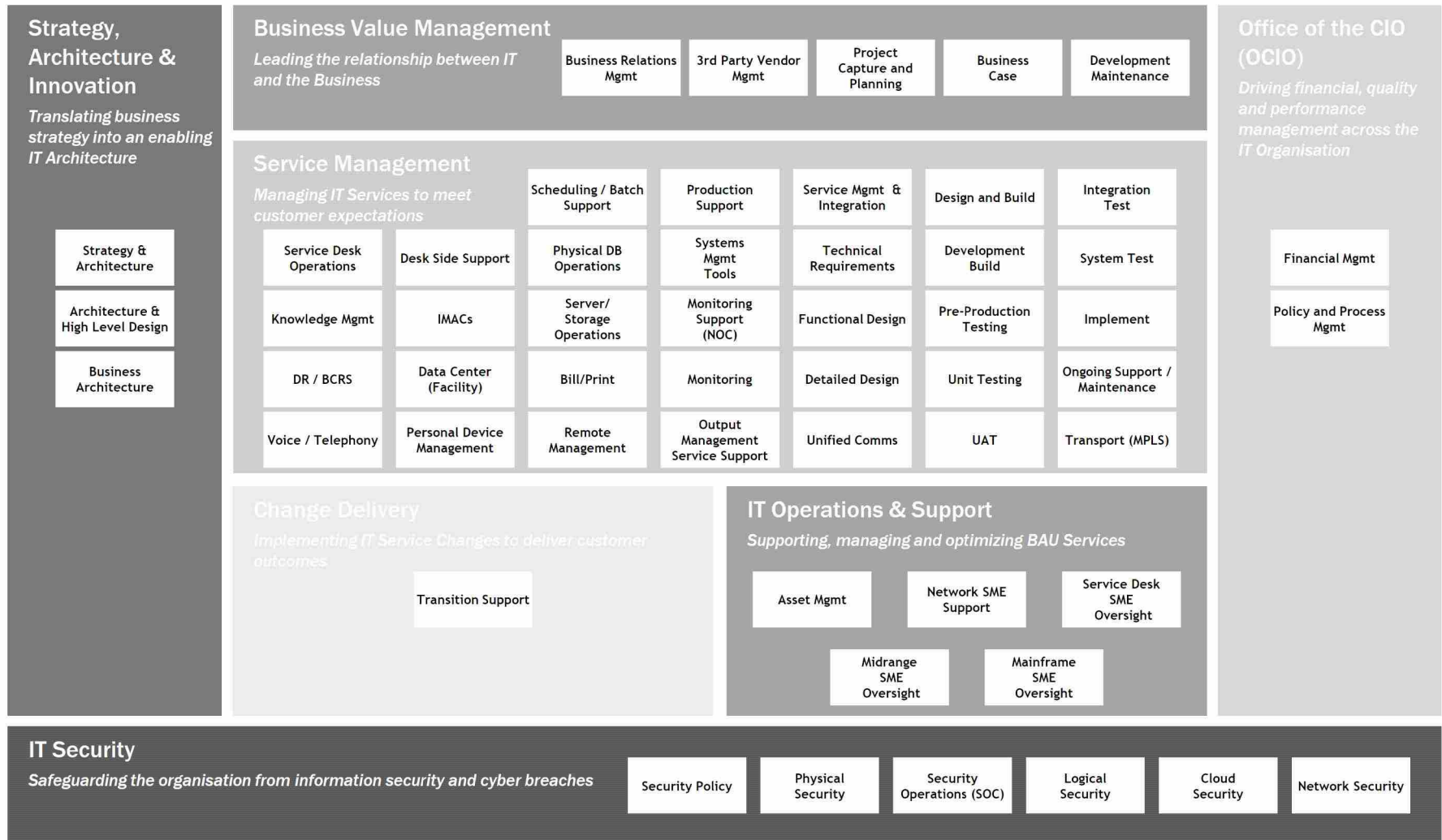
Governance

Vendors/Sourcing

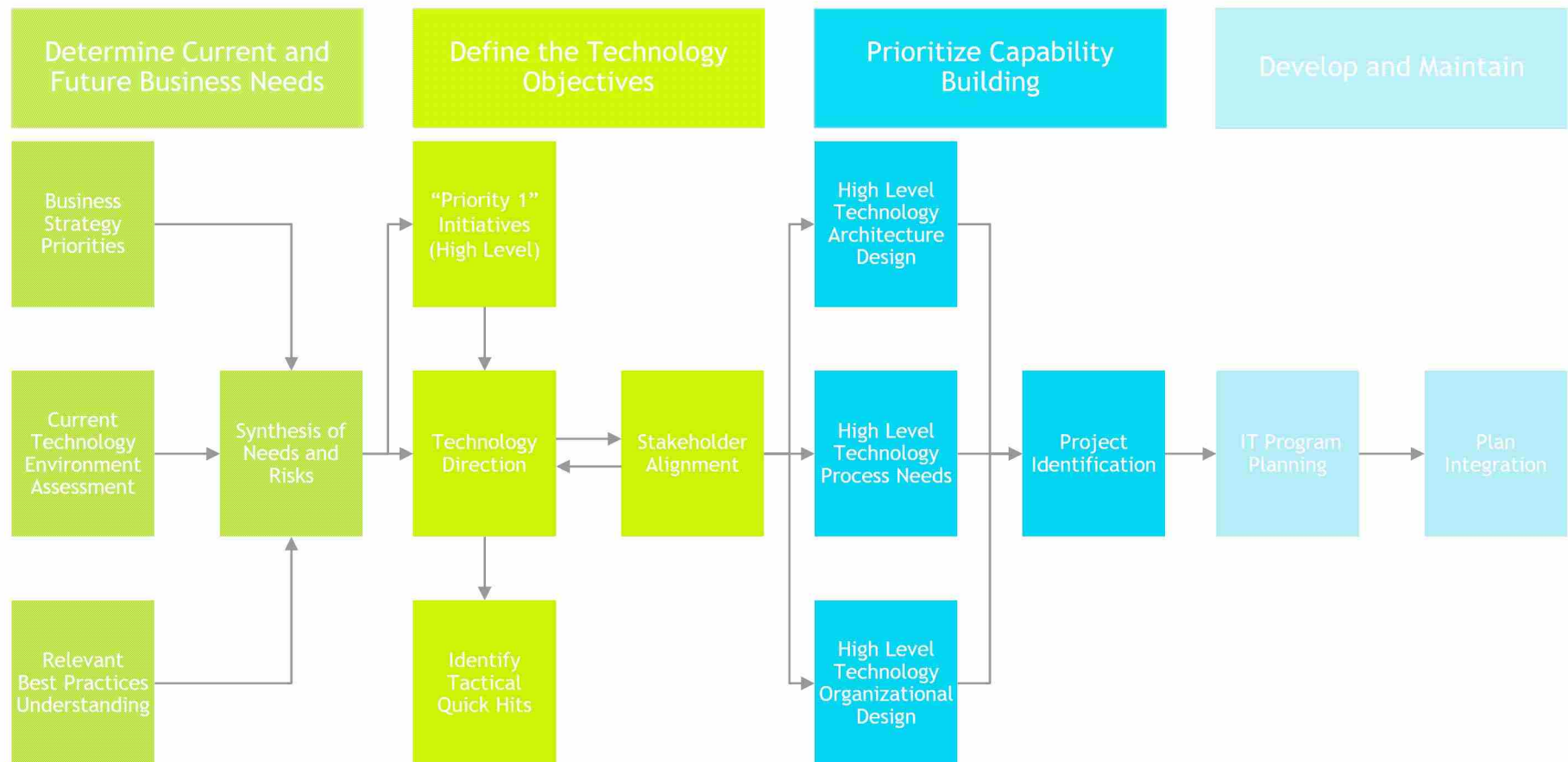
Technology
Strategy Goal

Source: Gartner 2016 Strategic Roadmap for IT/OT Alignment.

Recommended Capability Model: Service Aligned Technology Model



Technology Strategy Development



Technology Strategy Recommendations

Current Situation

Technology strategy is developed one year at a time for the most part

TPC acts as the de facto IT strategy setting body

Recommendation

Develop annual technology strategy development process that is coordinated with strategic planning and budgeting processes

- Include IT and OT in the process so a combined technology strategy is articulated
- Annual deliverable should be a 5 year roadmap
- Determine if current technology capabilities can deliver roadmap milestones

Redesign the TPC to be the technology strategy execution body approving projects that align with strategic priorities and timing, adhere to JEA's EA and have a credible resourcing plan

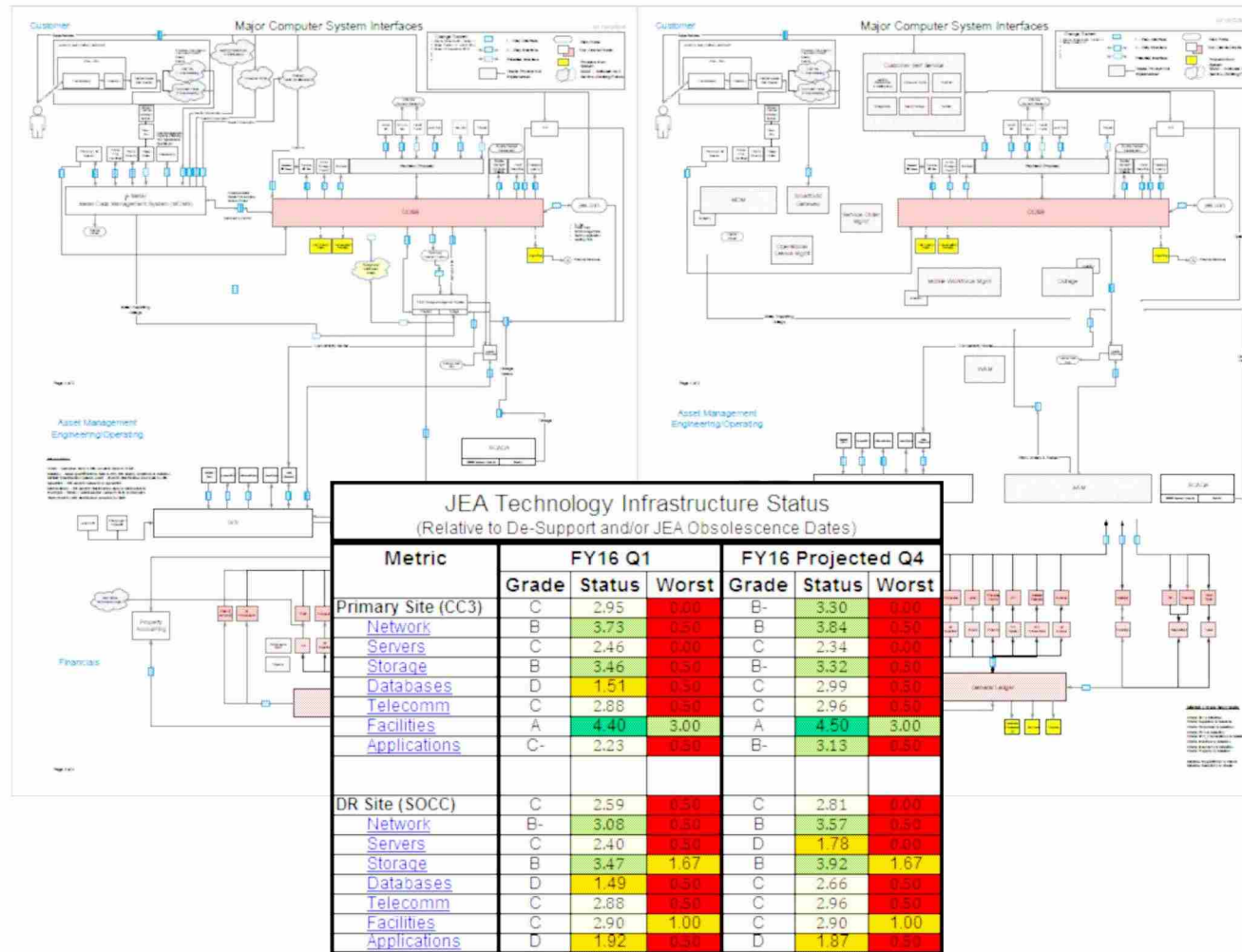
- Proposed projects must include a resourcing plan that accounts for resource/ capability constraints - leveraging external support as needed

Considerations & Outcomes

- Provides a guiding plan that identifies when technology solutions are required
- Creates a repeatable process to keep technology operations aligned with business needs
- Rebrand TS as Technology Operations
- Technology Operations actively manages resources and provides internal and external options to business during project planning
- Assumption is that technology project budgets are moved to the business
- Change management planning should be a requirement to approve any project

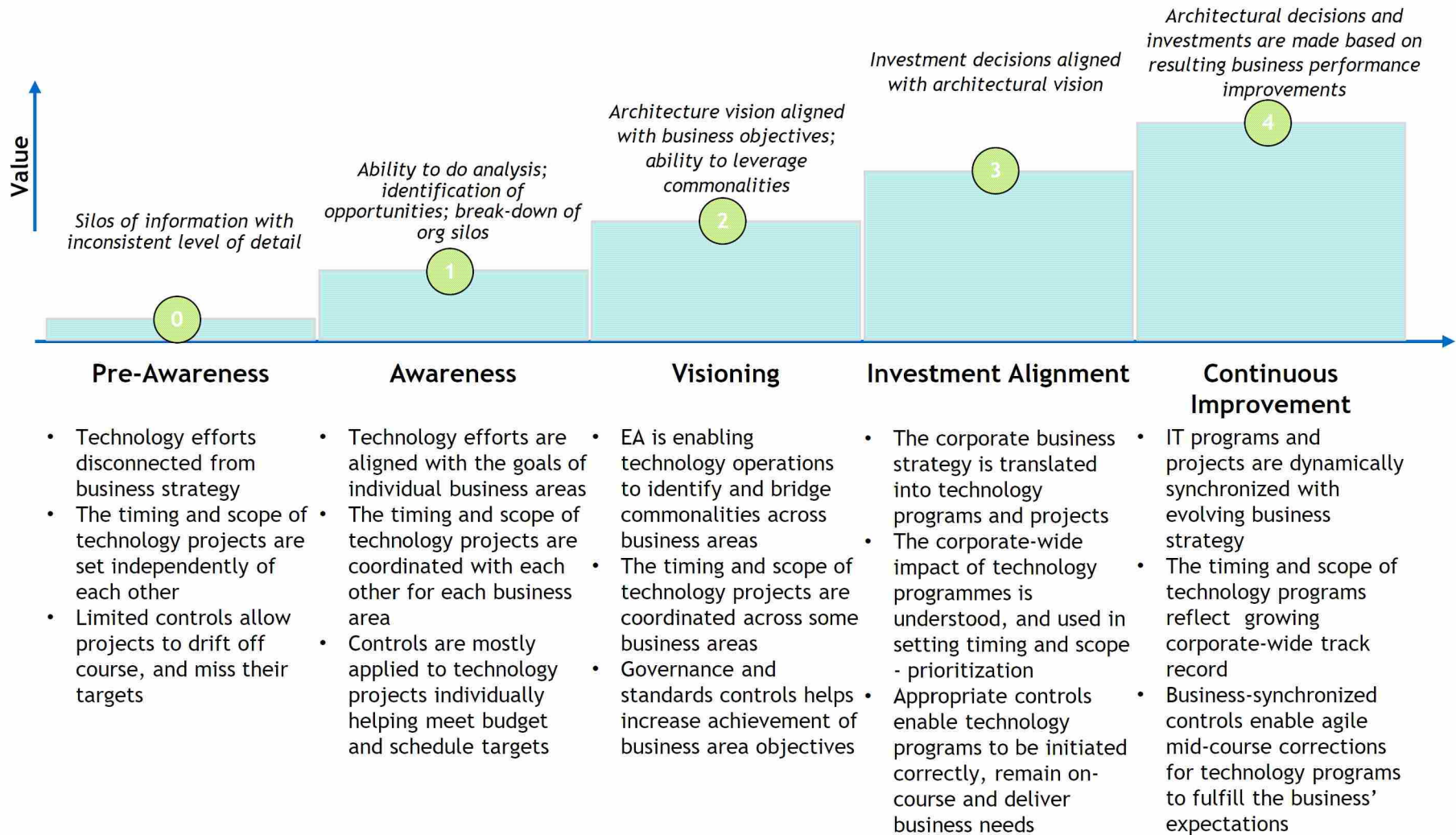
Current Enterprise Architecture Priorities

Findings



- Current priorities are oriented towards reliability of current systems - for example an application inventory update is underway and should be followed by a rationalization
- There is a renewed management of systems health as well as a few forward looking initiatives as evidenced by the cloud committee
- However, EA has/ does not created/ refreshed standards and governance for projects to increase likelihood that projects are successful in terms of:
 - Project delivery
 - Alignment with technology and business objectives
 - Adherence to security, integration/ interface, infrastructure, network and data requirements

JEA's Current and Recommended EA Capability

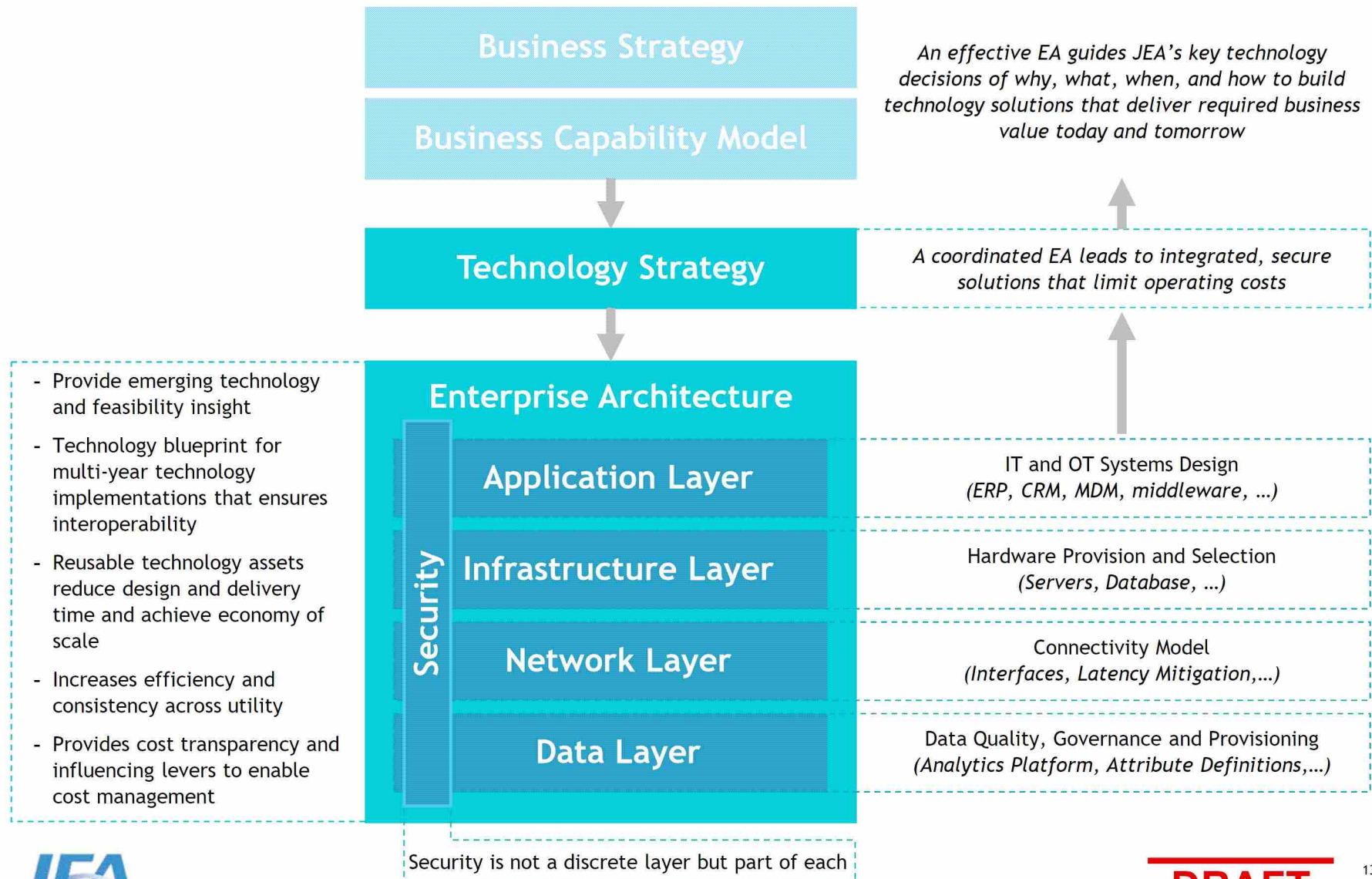


Current Maturity

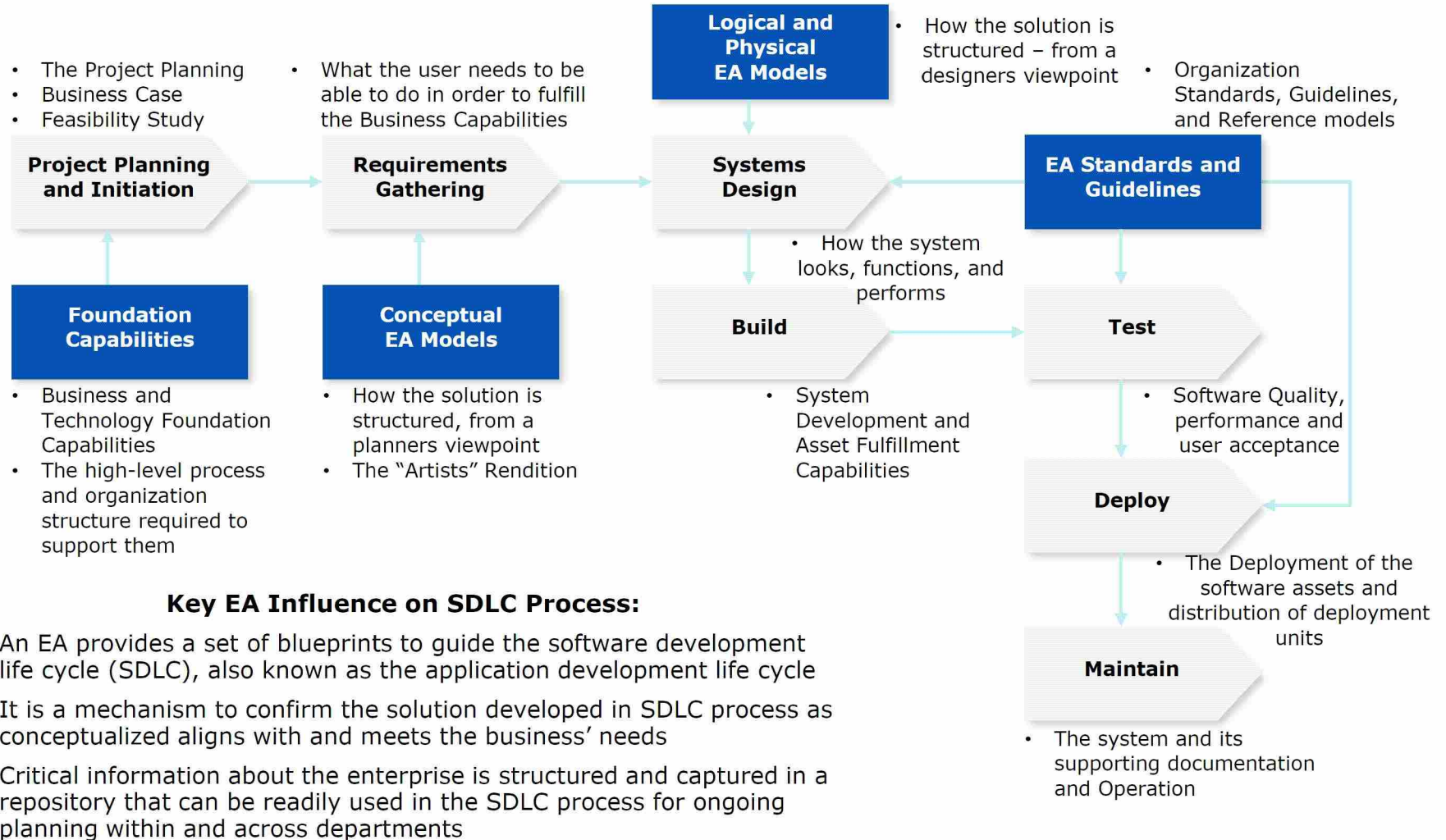
Minimum Maturity Requirement

Utility 2.0 Required Maturity

Enterprise Architecture Overview

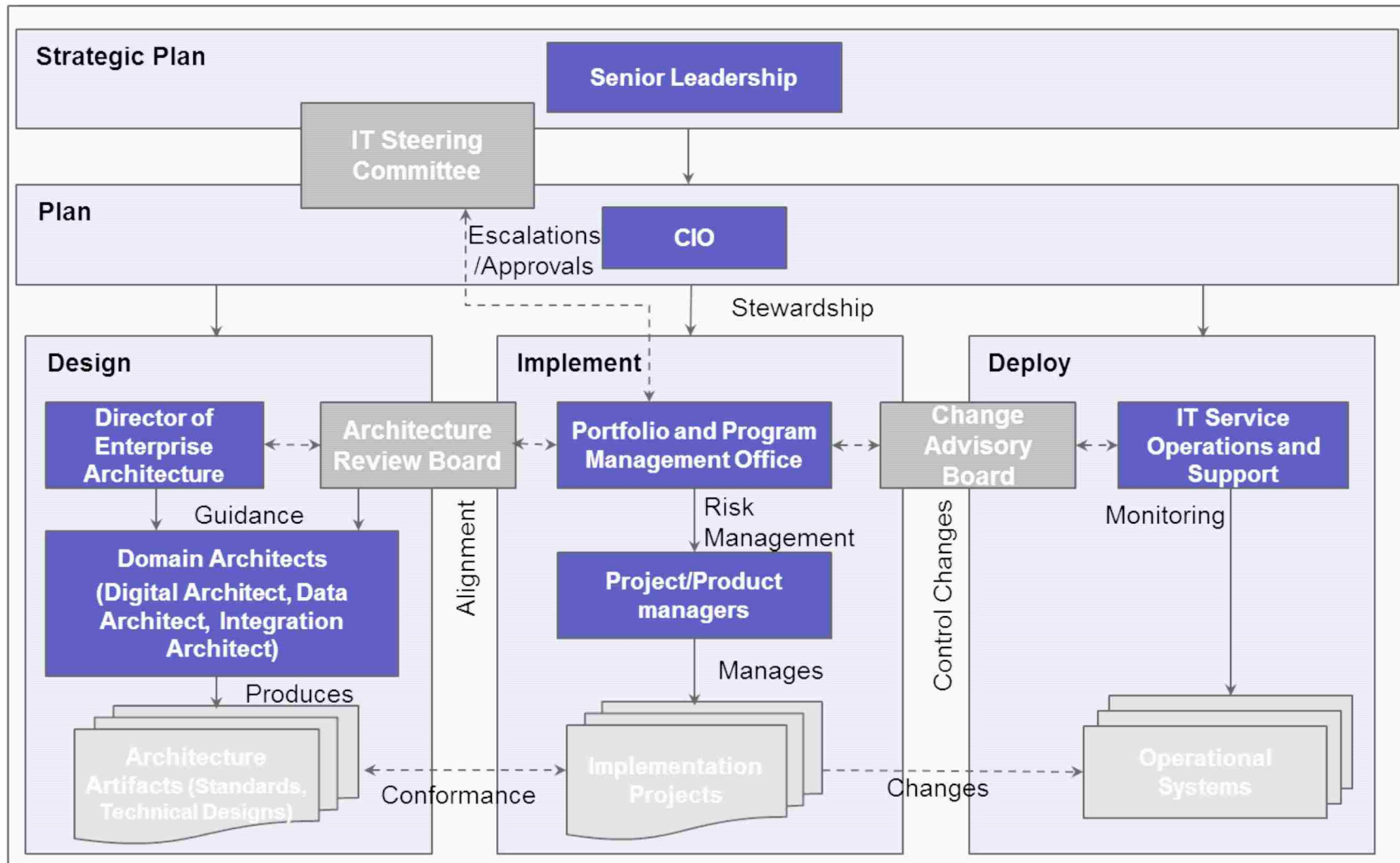


The Value of an Enterprise Architecture

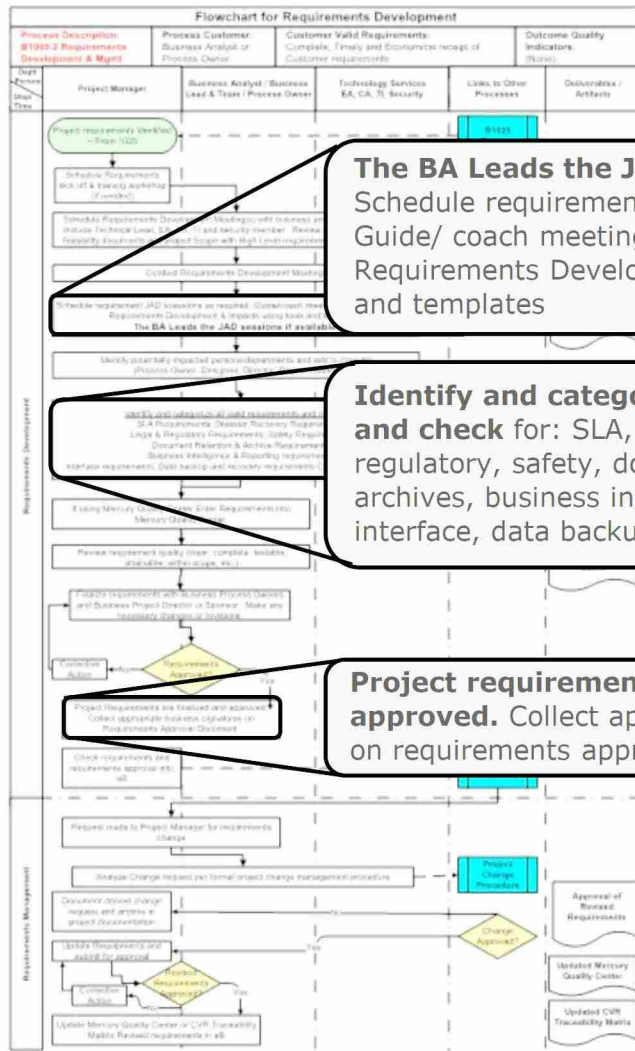


Legend: **SDLC Deliverables** **EA Deliverables**

Defining and Maintaining an Enterprise Architecture



Requirements Development Findings



The BA Leads the JAD sessions if available. Schedule requirement JAD sessions as required: Guide/ coach meeting participants through Requirements Development & Impacts using tools and templates

Identify and categorize all valid requirement and check for: SLA, disaster recovery, legal & regulatory, safety, document retention & archives, business intelligence and reporting, interface, data backup and recovery requirements

Project requirements are finalized and approved. Collect appropriate business signatures on requirements approval documents

Findings

- TS owns the annual budget for capital IT projects
- The importance of business participation in the requirements development process is generally understood but on any given project business resource participation is likely to be a challenge
- Inconsistent requirements development participation combined with workload of IT project managers means projects often default to mimic legacy process/ solution
- These factors creates tension between the business and TS where each believes the other should be doing more on a given project and often schedule
- This is exaggerated with agile projects because most participants do not recognize that agile can be more resource intensive at times
- Project requirements definition and documentation process is defined though the execution is not consistently executed to result in high value outcomes

Enterprise Architecture Recommendations (1 of 2)

Current Situation

Enterprise architecture capability focused on reliability

TS leads technology projects

TS owns the capital IT budget



Recommendation

Develop a comprehensive enterprise architecture (EA) that includes processes to update it as well as requirements for JEA's SDLC that includes the following layers for IT and OT:

- Application
- Infrastructure
- Network
- Data
- Security

Assign Technology Operations responsibility for technical outcomes by requiring it to certify the following for each project:

- Internal and external options to achieve the project were considered in the business case
- Adequate resourcing is committed and funded to start a project including the business lead, technology project manager and change management
- Enterprise architecture standards are followed and documented

Technology project budgets and accountability for success or failure transitioned to business

- Projects have to be aligned with business and technology strategy
- If internal Technology Operations cannot support project as needed than business can go outside of JEA if strategic timing warrants

Considerations & Outcomes

- Creates a written set of requirements that enable integrated, secure systems
- Includes processes, like requirements development to increase probability that project deliver needed functionality
- Technology Operations actively manages resources and provides internal and external options to business during project planning
- Change management planning should be a requirement to approve any project
- Technology Operations accountable to support business in project planning

DRAFT

Enterprise Architecture Recommendations (2 of 2)

Current Situation

IT project
documentation
inconsistent

Agile approach
ineffective

Recommendation

Require projects to stop until the business lead physically signs off on the business, technical, testing, change and security requirements

- Creating a contractual relationship between the business and technology operations increases likelihood that desired outcomes are achieved

Maintain waterfall approach until an agile process can be documented, socialized and agreed to by all participants

- The intensity and on-again/ off-again nature of agile project resourcing can be challenging to grasp

Considerations & Outcomes

- Intent is to increase the rigor from all parties involved to improve technology project outcomes
- Once agile method is understood and same rigor can be applied then leverage

Current Data Management Capabilities

Enterprise Data Management Assessment



- Data privacy and security and data retention and archiving are priorities at JEA and the results of the latest NERC CIP audit is evidence
- In order to develop an enterprise data management capability data governance and data architecture should be prioritized
- As one TS director stated, "JEA is data rich and information poor." There are data all over the company but not being put to use
- Like any utility an asset has to be used and useful to generate value and there are a lot of stranded data assets in JEA

Data Governance Benefits

Function	Benefit
Regulatory, Finance and Operations	<ul style="list-style-type: none">▪ Consistent and efficient rate filings▪ Enhanced ability for regulatory compliance▪ Enhanced and accurate financial reporting▪ Efficient planning and budgeting with increased granularity▪ Improved decision making based on accurate data
Sales and Marketing	<ul style="list-style-type: none">▪ Single view of customer (increases customer satisfaction)▪ Better interaction with customers across touch points▪ Ability to cross-sell and up-sell services▪ Accurate install base information
Procurement and Supply Chain Management	<ul style="list-style-type: none">▪ Reduced errors in item coding▪ Reduced delays in shipment▪ Reduced inventories due to accurate coding▪ Ability to perform aggregated spend analysis
Information Technology	<ul style="list-style-type: none">▪ Reduced staff for data cleansing tasks▪ Improved productivity of standards-based application development▪ Reduction of interface errors related to data issues

Steps to Demonstrate Data Governance

A successful data governance program should be established on a foundation of providing business value:

- Supports regulatory reporting requirements (e.g., timely and highly automated rate filings)
- Supports financial reporting requirements (e.g., period closes, financial statements, cost allocation across work)
- Supports operational reporting (e.g., key performance metrics for functions within electric and gas)

Tactical Actions

Measure the impact of data quality on the business

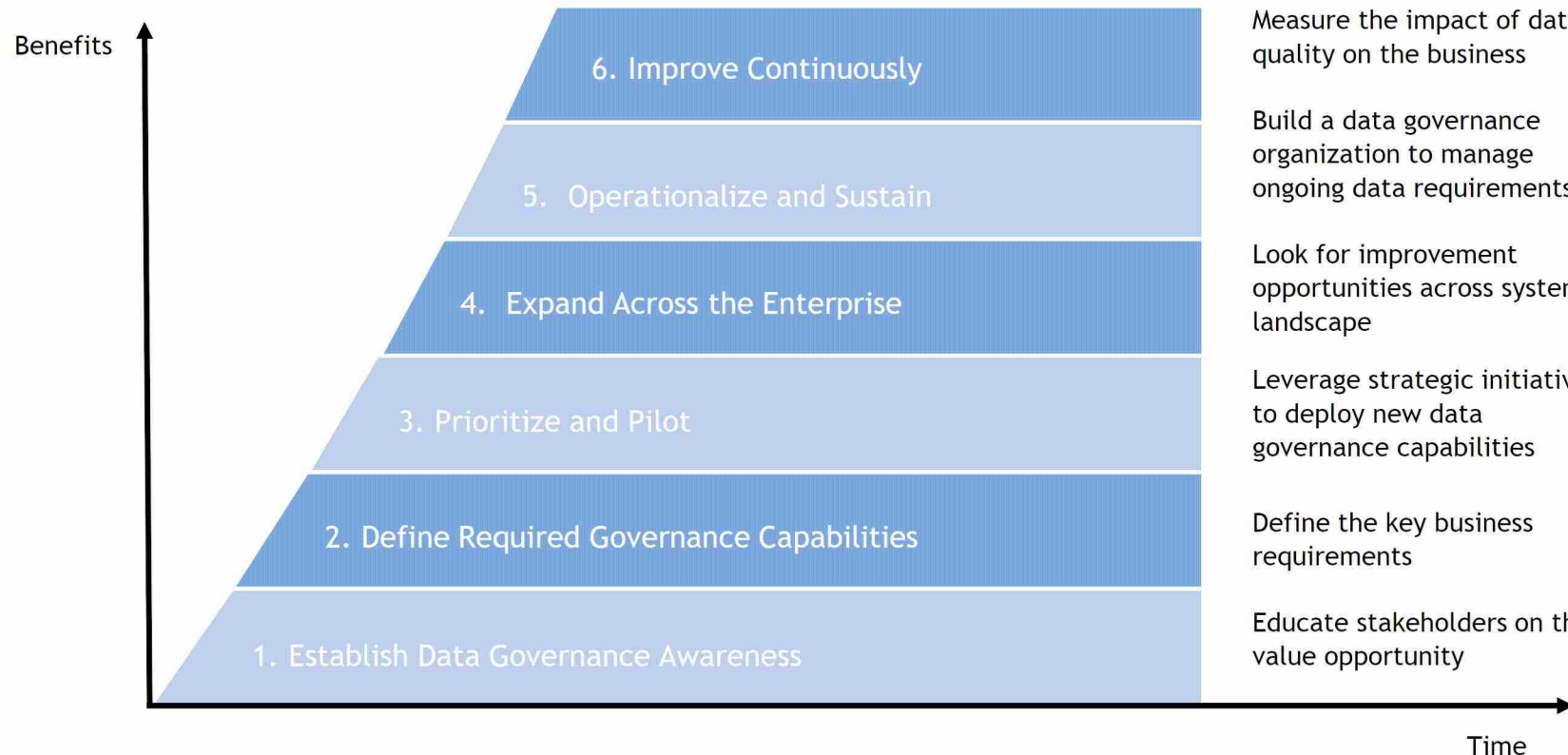
Build a data governance organization to manage ongoing data requirements

Look for improvement opportunities across systems landscape

Leverage strategic initiatives to deploy new data governance capabilities

Define the key business requirements

Educate stakeholders on the value opportunity



Enterprise Data Management Recommendations

Current Situation

Enterprise data management is not considered a strategic capability

Data governance decisions are mostly user determined

Recommendation

Conduct a formal enterprise data management maturity assessment and factor the results into the technology strategic plan

- The effort should leverage the results from the EAM data architecture project and account for all data other than included in the EAM data architecture project scope
- The results of an enterprise data management assessment can then inform business and technology strategic roadmaps and determine the priority for enterprise data management functionality improvement projects

Establish a formal data governance policy and data architecture as part of the enterprise architecture

- Developing these two foundational elements of an enterprise data management capability are important to begin to produce integrated technology solutions

Considerations & Outcomes

- There is a recognition across JEA that enterprise data management is increasingly important as evidenced by the data lake comparison and customer analytics project with TEA
- JEA's success in the most recent NERC CIP audit is worth recognizing in regards to data security and retention for critical infrastructure data

JEA's Current Technology Sourcing Needs

Key Drivers for JEA		Rationale
Cost Arbitrage	Labor Arbitrage	• Realize immediate /short-term cost savings by accessing less expensive labor
	Capital Reduction	• Convert effectively fixed labor costs, as well as other traditional fixed costs, to variable costs
	Cost Avoidance	• Avoid costs related to exiting or entering markets without significant interruption to business
Capability Enhancement	Quality	• Increase technology service levels through formalized service level agreements
	Talent Access	• Access to a larger bench of talent with specific domain expertise • Access to intellectual property, improved processes, standards, and solutions
	Speed	• Accelerate deployment of resources to support JEA's needed technology capability building
	Geographic Reach	• Buy rather than build to rapidly develop capabilities in new / remote geographies
	Scalability	• Manage temporary or permanent increases or decreases in production
Risk Mitigation	Risk Transfer	• Transfer certain risks to service providers better equipped to mitigate them
Strategic Leverage	Focus on Core Business	• Focus internal employees on business critical activities and leverage marketplace for non-critical business activities
	Commercial Leverage	• Utilize suppliers through standard legally binding contract with objective service levels contributing to more predictable service delivery and operations
	Change Agent	• Use sourcing as a catalyst to achieve the step change that JEA's needs from technology operations
	Apply to JEA	Do not Apply

Realigning the cost to service level created by the civil service employment requirements is the primary need for a different sourcing model - though other benefits are available to JEA too

Common Functions Provided by a Third Party

Strategy, Architecture & Innovation

Translating business strategy into an enabling IT Architecture

Strategy & Architecture

Architecture & High Level Design

Business Architecture

Business Value Management

Leading the relationship between IT and the Business

Business Relations Mgmt

3rd Party Vendor Mgmt

Project Capture and Planning

Business Case

Development Maintenance

Service Management

Managing IT Services to meet customer expectations

Service Desk Operations

Desk Side Support

Physical DB Operations

Systems Mgmt Tools

Technical Requirements

Development Build

System Test

Knowledge Mgmt

IMACs

Server/Storage Operations

Monitoring Support (NOC)

Functional Design

Pre-Production Testing

Implement

DR / BCRS

Data Center (Facility)

Bill/Print

Monitoring

Detailed Design

Unit Testing

Ongoing Support / Maintenance

Voice / Telephony

Personal Device Management

Remote Management

Output Management Service Support

Unified Comms

UAT

Transport (MPLS)

Change Delivery

Implementing IT Service Changes to deliver customer outcomes

Transition Support

IT Operations & Support

Supporting, managing and optimizing BAU Services

Asset Mgmt

Network SME Support

Service Desk SME Oversight

Midrange SME Oversight

Mainframe SME Oversight

Office of the CIO (OCIO)

Driving financial, quality and performance management across the IT Organisation

Financial Mgmt

Policy and Process Mgmt

IT Security

Safeguarding the organisation from information security and cyber breaches

Security Policy

Physical Security

Security Operations (SOC)

Logical Security

Cloud Security

Network Security



Typically delivered with organic resources



Sometimes delivered through external sources



Commonly delivered through external sources

Contracted Services Realization Examples



Global Food Supply Chain Company

Large Global Bank

Financial Services Firm

Functional Scope

All towers within IT Infrastructure

Application Re-platforming and
Infrastructure Services Strategy and
Transition

Data Center Infrastructure &
Application Re-platforming

Annual Budget in Scope

\$158M

\$1.5B

\$130M

Annual Outsourcing Contract Value

\$55M

\$750M

\$78M

Annual Savings

\$67M

\$750M

\$52M

Savings as % of Annual Budget

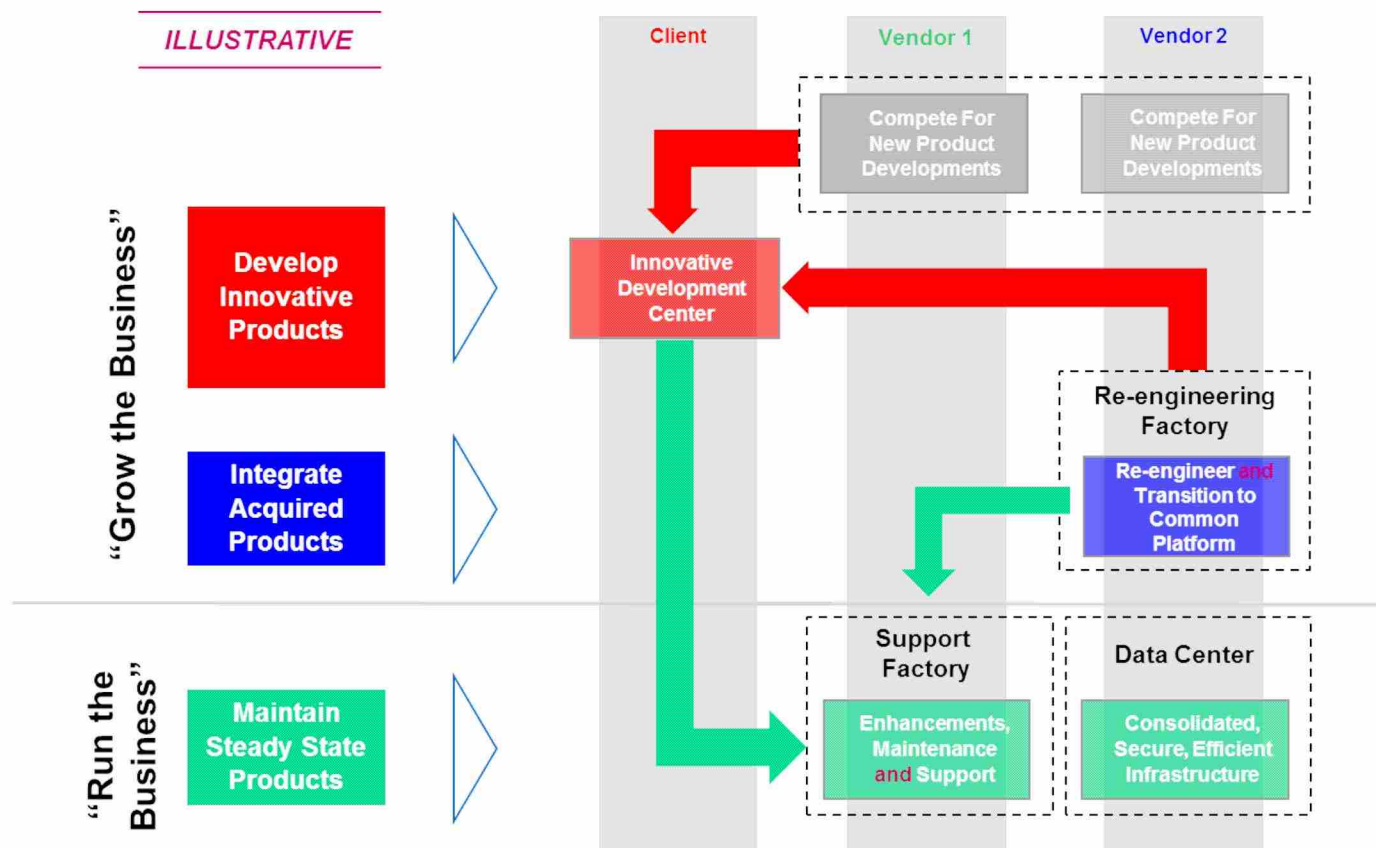
42%

50%

40%

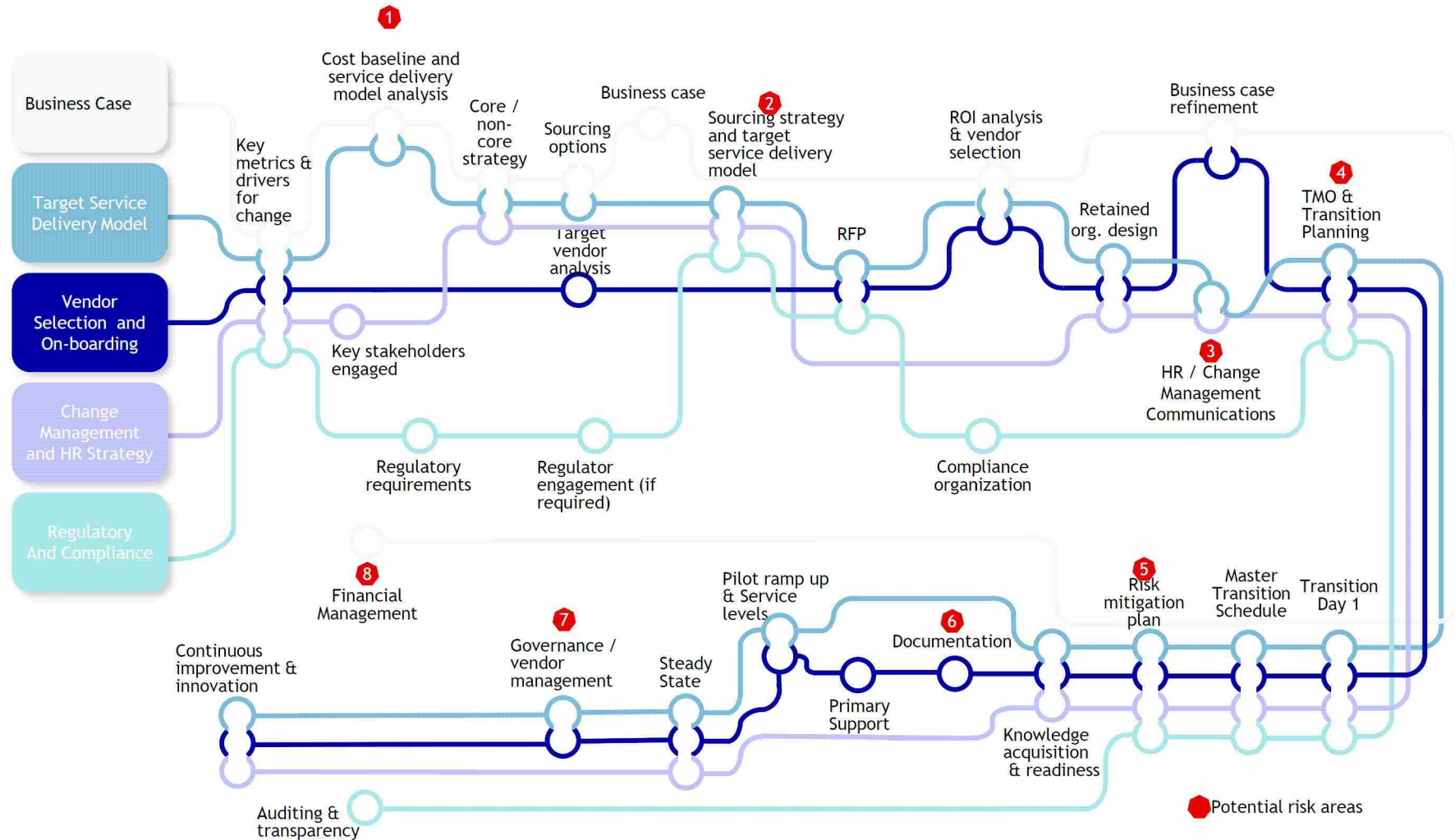
Contracted Services Can Provide Cost and Service Benefits

The target service delivery model leverages the core product knowledge and expertise of internal resources plus the scale and competitiveness of 3rd party vendors



In this example, both infrastructure services are contracted to a third party and applications are "re-platformed" to fewer technology stacks, enabling lower "run" costs and more effective "grow" capabilities

Typical Sourcing Process

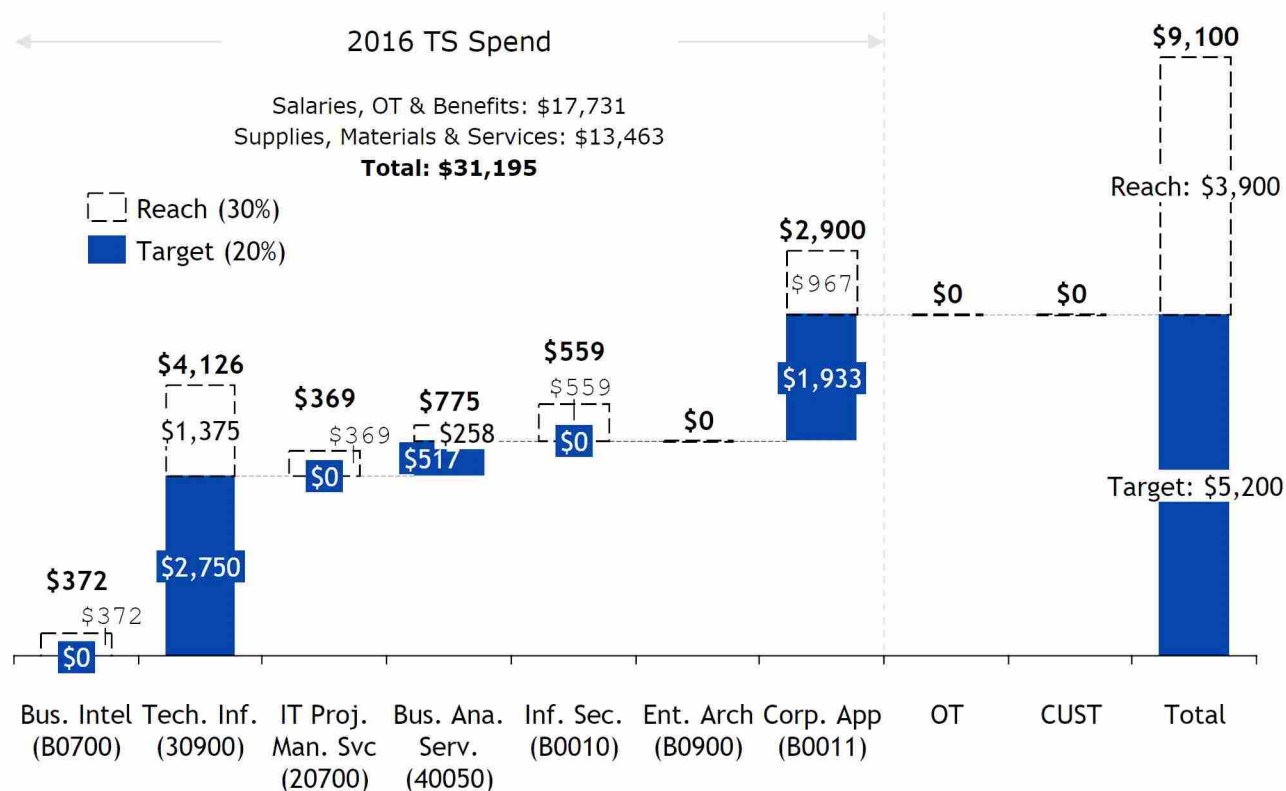


Careful planning and oversight are absolute requirements for a successful sourcing outcome and effective vendor relationship

Sourcing Benefits

Potential JEA Technology Savings by Cost Center

2016 (\$USD in 000)



- Outsourcing common functions to high-performing third parties enables cost and service rebalancing to better meet the needs of the business
- Target savings: there is ~\$5.2M in potential savings from functions that are commonly sourced to a third party
- Reach savings: there is an additional ~\$3.9M in potential savings from functions that are sometimes outsourced

Source: 2016 JEA actual expense data, Deloitte analysis



DRAFT

Technology Sourcing Recommendations

Current Situation

Employment requirements at JEA are inconsistent with changing and sizeable business needs

Recommendation

Assess whether JEA's current technology resources can meet the strategic and operational needs of the technology strategy and enterprise architecture to identify which functions to source through a third party

- Offers an opportunity to rationalize JEA's application portfolio as well as its hardware footprint
- Improving the cost to service relationship is the priority for functions that are identified

Considerations & Outcomes

- Consider TEA as a possible sourcing entity as well - especially for business intelligence and analytics platform hosting and services since other members likely have similar needs and can therefore offer potential cost efficiencies

The Need for Automation

Process Automation Justification

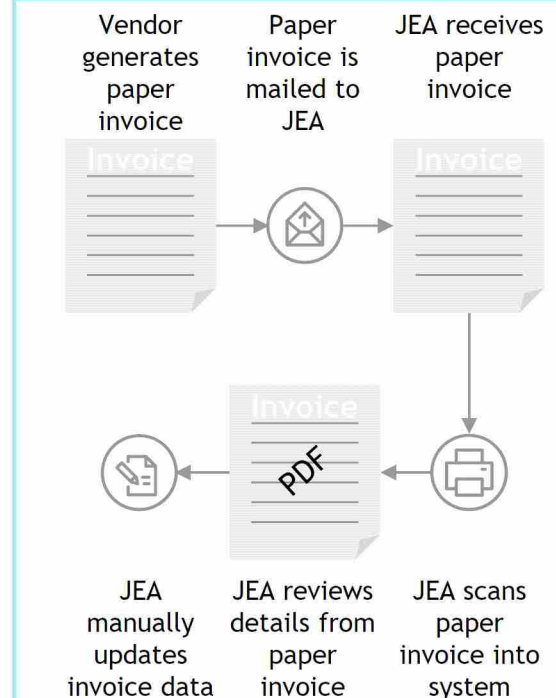
Many employees encounter the following in their daily work:

- Tasks that take “too long” to execute
- Repetitive work
- “Babysitting” systems to make them run
- Too many people are involved in what should be a simple process
- Getting the necessary information to complete a task is difficult

The impact on the business is:

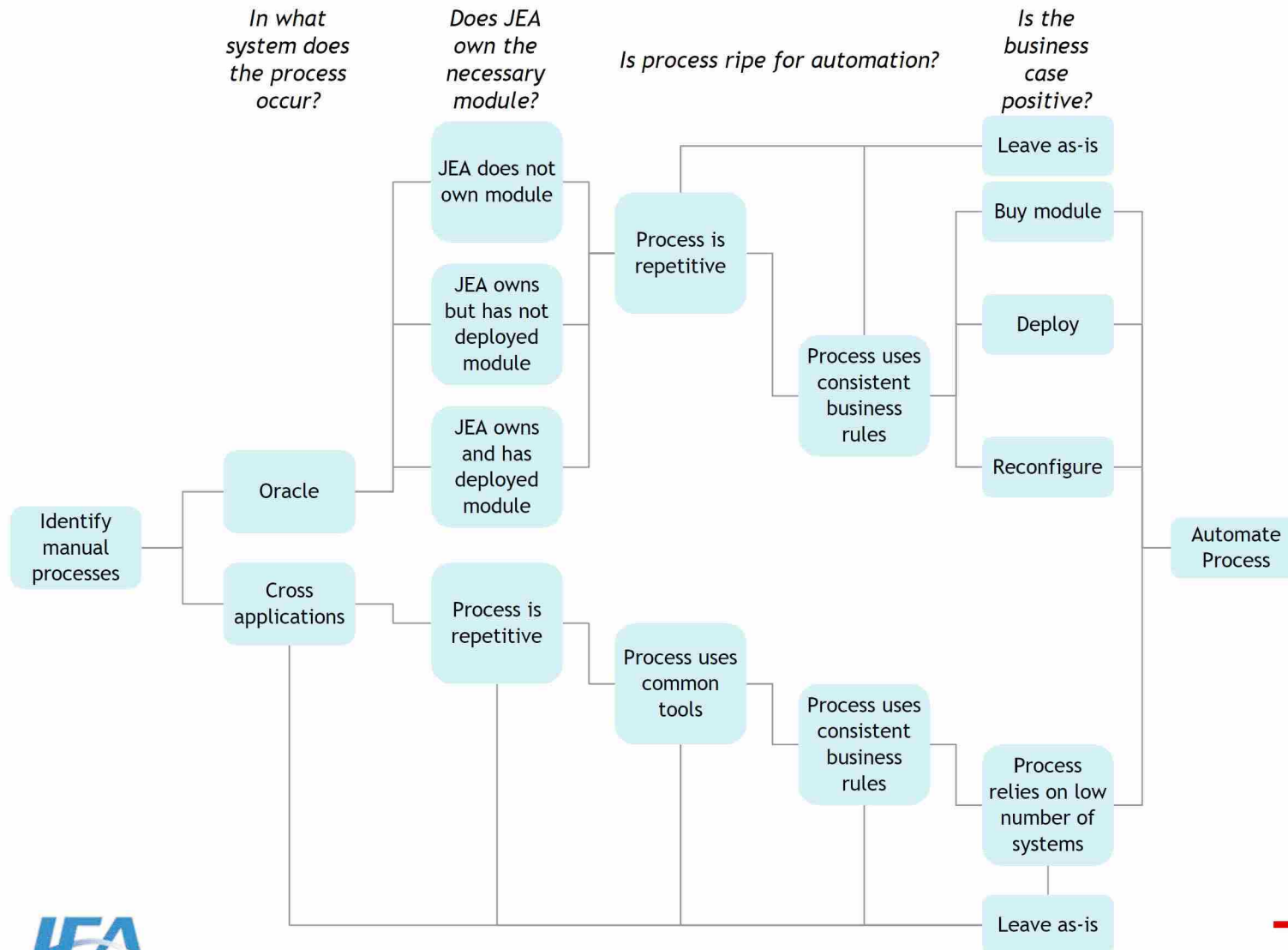
- Lower employee productivity
- Increased possibility for errors
- Low morale
- Exaggerated backlogs of work

Example - Invoicing



Increasing Automation Across JEA

Process Automation Decision Tree



Considerations

- Process automation requires “thinking big” to pay off - meaning a commitment to automate many manual processes
- It does require governance and maintenance to pay off and continue to pay off
- When done correctly it can free employees to focus on higher value tasks
- In some, not most, process automation can enable resource redeployment

Oracle Process Automation Opportunities

Non-Exhaustive Listing of JEA Owned Oracle Modules and Potential Automation Opportunities



Process Automation Overview

Process automation is a way to automate repetitive, rules-based processes by emulating human execution; it is frequently employed to either increase operational capacity or improve efficiency or quality



“Bots” are actually software programmed to replicate repetitive human tasks, such as information capture, transaction processing, or data manipulation, using the user interface as a human would



Bots can be implemented in a “virtual environment” and can work on multiple processes and interact with many different types of applications and systems, similar to a back-office processing center

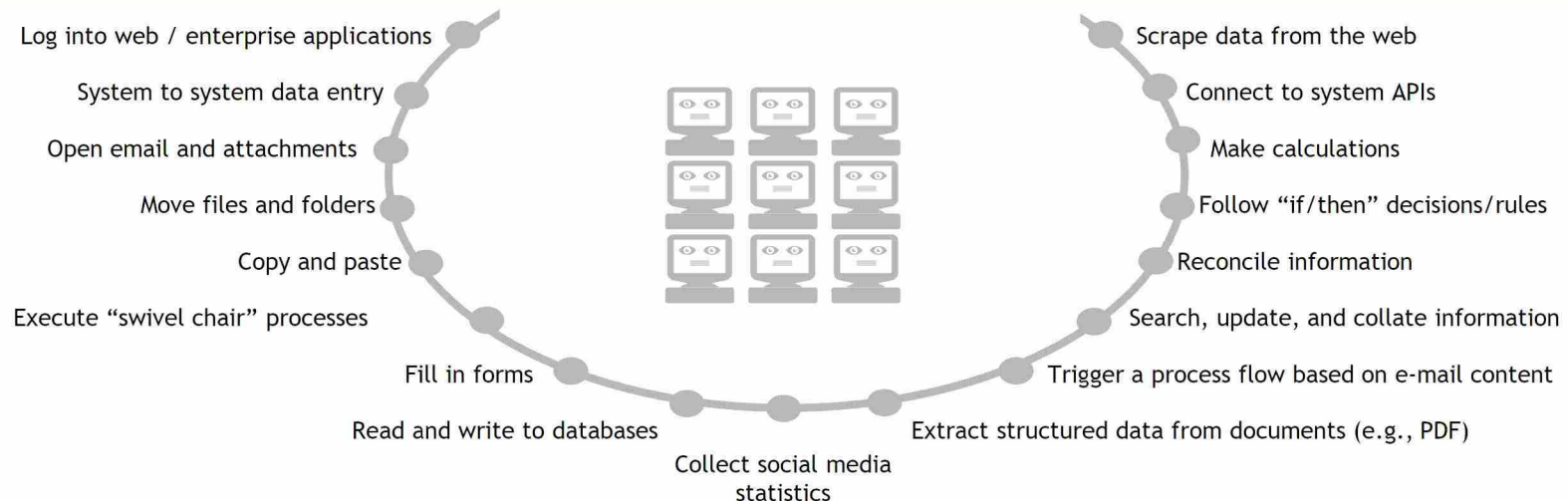


Process automation replicates human interactions with proven technology, mimicking common tasks such as queries, cut/paste, button clicks



Process automation operates in the User Interface layer: it is able to automate rules-based work without compromising the underlying IT infrastructure


What it can do...




Cross-Application Process Automation Opportunities

The JEA processes below utilize multiple systems across the organization, presenting an opportunity ripe for automation

JEA Process	System		
	Oracle	Microsoft Office	Other
Blanket PO release			
Accounts Payable – Invoice Processing			
Financial Accounting – Month-end Management Reporting			
Talent Acquisition – Applicant Tracking System			
Workforce Planning and Analytics – B.I. Dashboard Creation			
Online Bill pay through bank			

 System is used in this process

 System is not used in this process

Example of Cross-Application Automation Opportunities

Illustration of a “bot” being deployed to interact with multiple business applications and perform non-core low-value activities that would otherwise take time away from human performers

Sales Data Capture Process

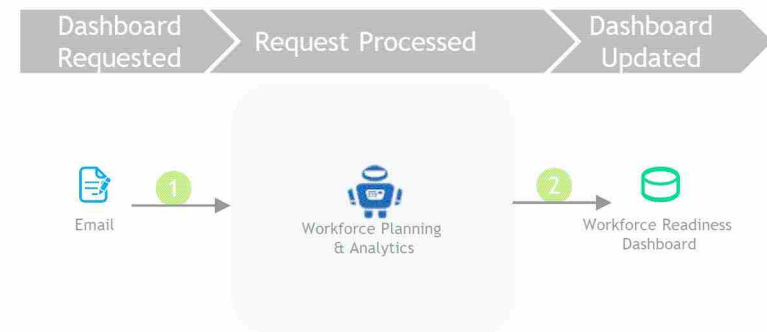
Scenario: a business unit leader has requested an updated workforce readiness dashboard, so JEA’s Workforce Planning and Analytics (WP&A) team opens the Oracle iRecruitment application to generate the snapshots of headcount, composition, assignment, demographics, tenure, turnover, and replacements. The team then exports this data into excel-friendly format in order to conduct the analysis in their manually-maintained model to generate the corresponding business intelligence dashboards. Once the analysis is complete, the team then pastes images of the tables, charts and graphs into PPT for distribution.

Current State Process



- 1 The new workforce readiness dashboard request is submitted to the WP&A team
- 2 WP&A team generates the snapshots in Oracle iRecruitment, validates outputs, and exports them to excel
- 3 WP&A team updates excel models using snapshot iRecruitment snapshots to generate workforce readiness dashboards
- 4 WP&A team pastes workforce readiness dashboard outputs into PPT and finalizes the report
- 5 WP&A team sends report to business unit leader

RPA Enabled Future State

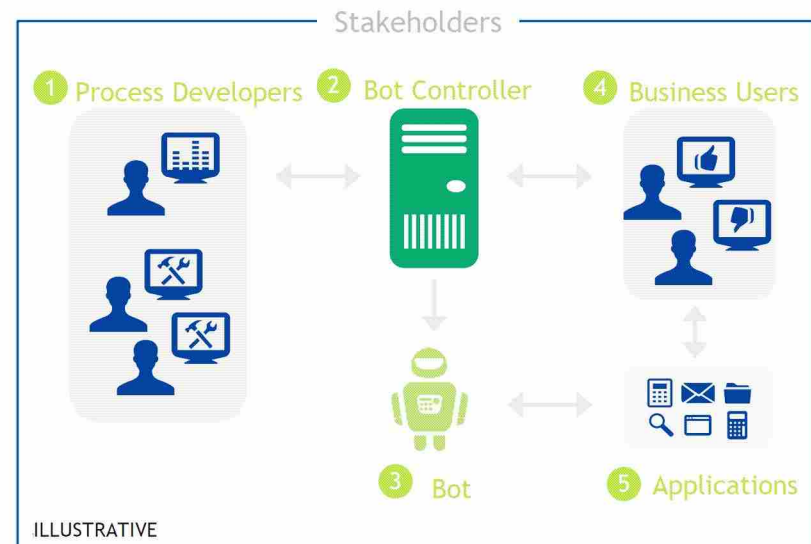


- 1 The new workforce readiness dashboard request is submitted to the WP&A team
- 2 A robot processes the request, generates the snapshots, automatically updates information in all relevant systems

Enabling Process Automation Behind the Scenes

Think of adding a 'bot' is like adding a new performer / swim lane in your process flow diagrams. Process automation can be easily deployed and managed from a central controller to interact with a wide range of business applications

- 1 **Process Developers** specify the detailed instructions for robots to perform and “publish” them to the robot controller repository - for JEA the process developers will be a combination of the Black Belt team, to streamline the process, as well as Technology Operations, to develop
- 2 The **Bot Controller** is used to assign jobs to robots and to monitor their activities
- 3 Each **Bot** is located on an organization environment - which may be virtualized or physical (i.e., desktop computer) - where it interacts directly with business applications, as if it were a performer in a process swimlane
- 4 **Business Users** review and resolve any exceptions or escalations
- 5 Robots are capable of interacting with a wide range of **Applications**



Automation Benefits

Process automation is a value addition to the organization's operating model, driving higher productivity, increased compliance and reduced error rates

Process Type	Description	Representative Benefits of Automation	JEA Examples
High Volume Transactional Processes	<ul style="list-style-type: none"> Processes that happen multiple times a day and involve the transfer of information from one place to another 	<ul style="list-style-type: none"> Reduces the average time and associated costs to execute transactional processes by 60% to 80% on average Enables process to be executed approximately 15 times faster than a human and operates 24x7 leading to high-throughput 	<ul style="list-style-type: none"> Invoice receipt processing Talent acquisition resume printing process
High Risk Processes with Multiple Hand-Offs	<ul style="list-style-type: none"> Processes with opportunities for human error to impact results and have multiple hand-offs between users and/or systems 	<ul style="list-style-type: none"> Eliminates need for manual intervention and reduces the number of total employees needed to execute tasks by 20% to 60% Increases compliance by reducing errors and the amount of time spent on rework and review by 70% to 99% 	<ul style="list-style-type: none"> Period-end financial reporting creation HR B.I. dashboard creation
Data Validation Processes	<ul style="list-style-type: none"> Processes that involve validation or reconciliation of results used to measure accuracy of information 	<ul style="list-style-type: none"> Ensured consistency and accuracy of data in reporting by eliminating manual errors by 80% to 99% Enables additional control points and processes through the creation of automated data / quality checks by 80% to 99% Provides the ability to shift FTE focus from report generation to analysis by 30% to 60% 	<ul style="list-style-type: none"> Period-end management reporting validation
Dependent or Linked Processes	<ul style="list-style-type: none"> Processes that must be manually completed in parallel or in succession in order to achieve desired output / outcomes 	<ul style="list-style-type: none"> Decreases processing time by up to 300% by enabling processes to be executed outside of standard business hours (i.e. overnight and weekends) Enables organizations to build automated system connections / interfaces without making investments in IT architecture by 20% to 50% 	<ul style="list-style-type: none"> Period-end financial reporting creation (consolidation of system financial reports)

Process Automation Recommendations

Current Situation

Manual processes are prevalent across JEA - limiting ability of employees to perform higher value work

Recommendation

Build a process automation factory once a successful pilot is performed and a detailed enterprise inventory of manual processes is created

- Leverage the process improvement capabilities of the Black Belt team to reengineer inefficient processes
- Develop repeatable bot development and support processes to minimize cost of effort
- Constantly assess returns to the business to make sure ROI is positive

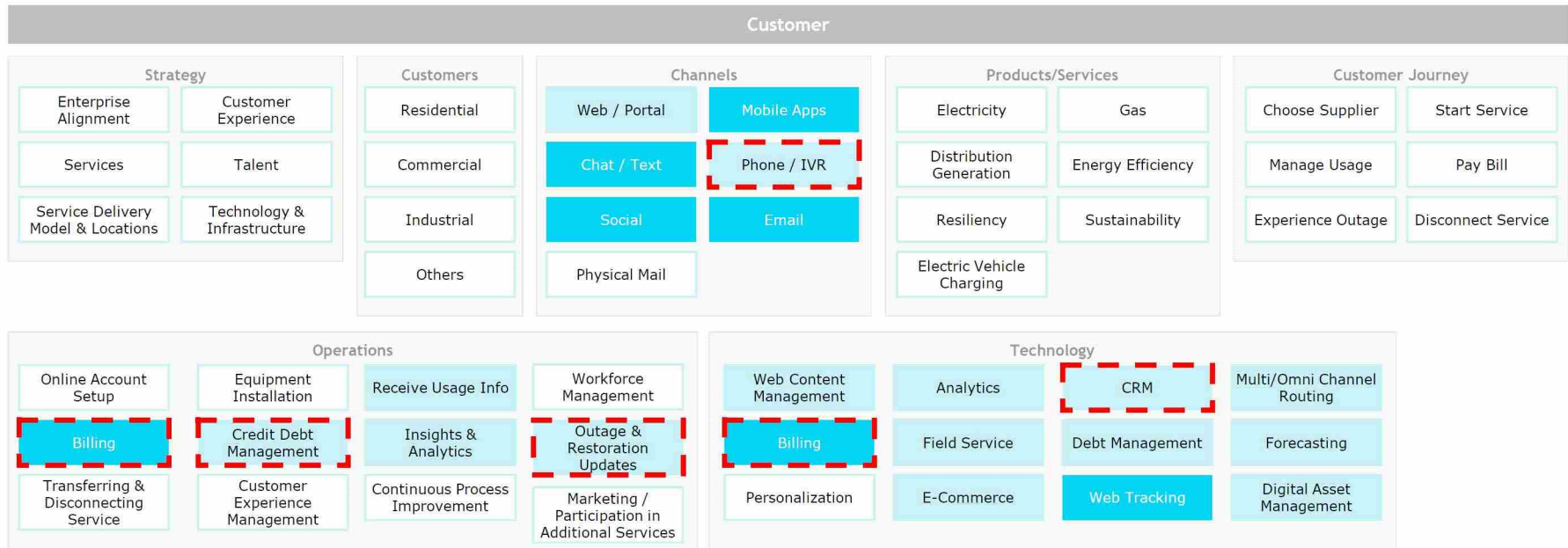
Considerations & Outcomes

- May offer opportunities for JEA to move some Oracle modules like core HR, which is more mature than others, to the cloud sooner and relieve JEA of hosting and supporting requirements

Process Inventory for Potential Process Automation Opportunities

Process Automation Areas to Explore - Customer Resources

Great customer interactions are built on capabilities that carefully balance the intricate interplay between customer experience decisions and impacts to operational infrastructure

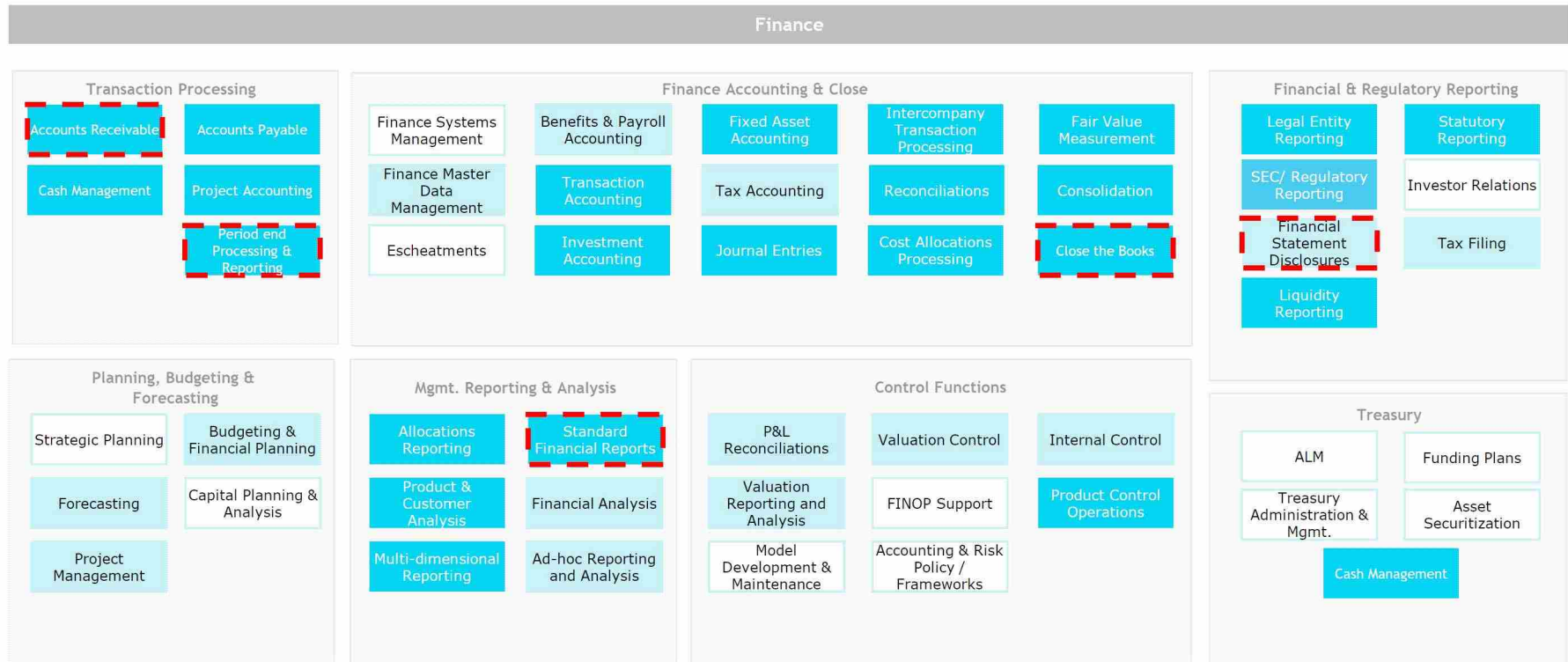


Area identified as an opportunity for automation at JEA

Note: this chart represents a non-exhaustive list of potential automation opportunities at JEA

Process Automation Areas to Explore - Finance

Finance organizations are often a common place for organizations to invest in Process Automation as it offers high Returns on Investment (ROI)

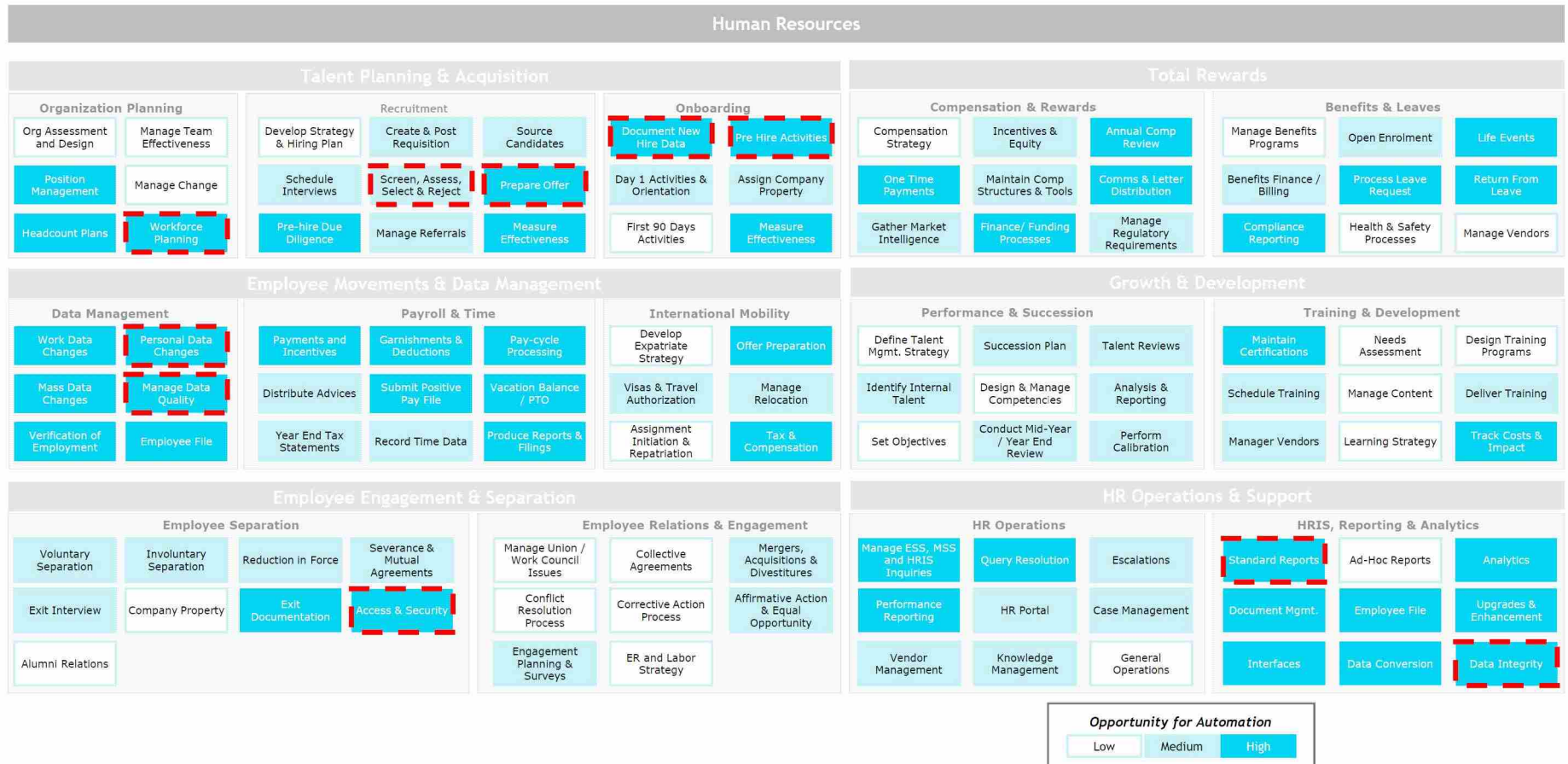


Area identified as an opportunity for automation at JEA

Note: this chart represents a non-exhaustive list of potential automation opportunities at JEA

Process Automation Areas to Explore - Human Resources

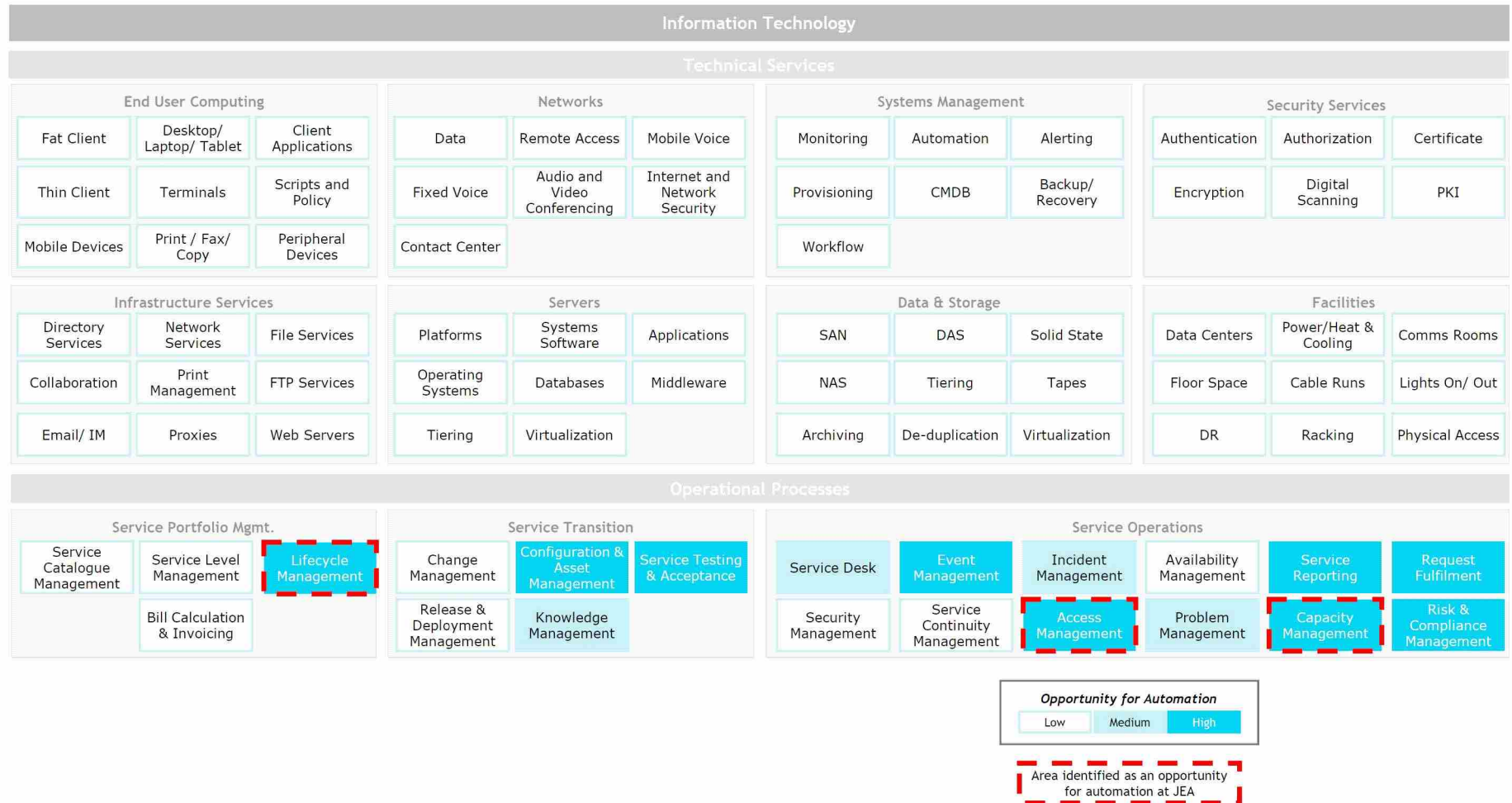
Human resources processes typically provide a variety of automation opportunities depending on the maturity of the underlying application infrastructure



Note: this chart represents a non-exhaustive list of potential automation opportunities at JEA

Process Automation Areas to Explore - Information Technology

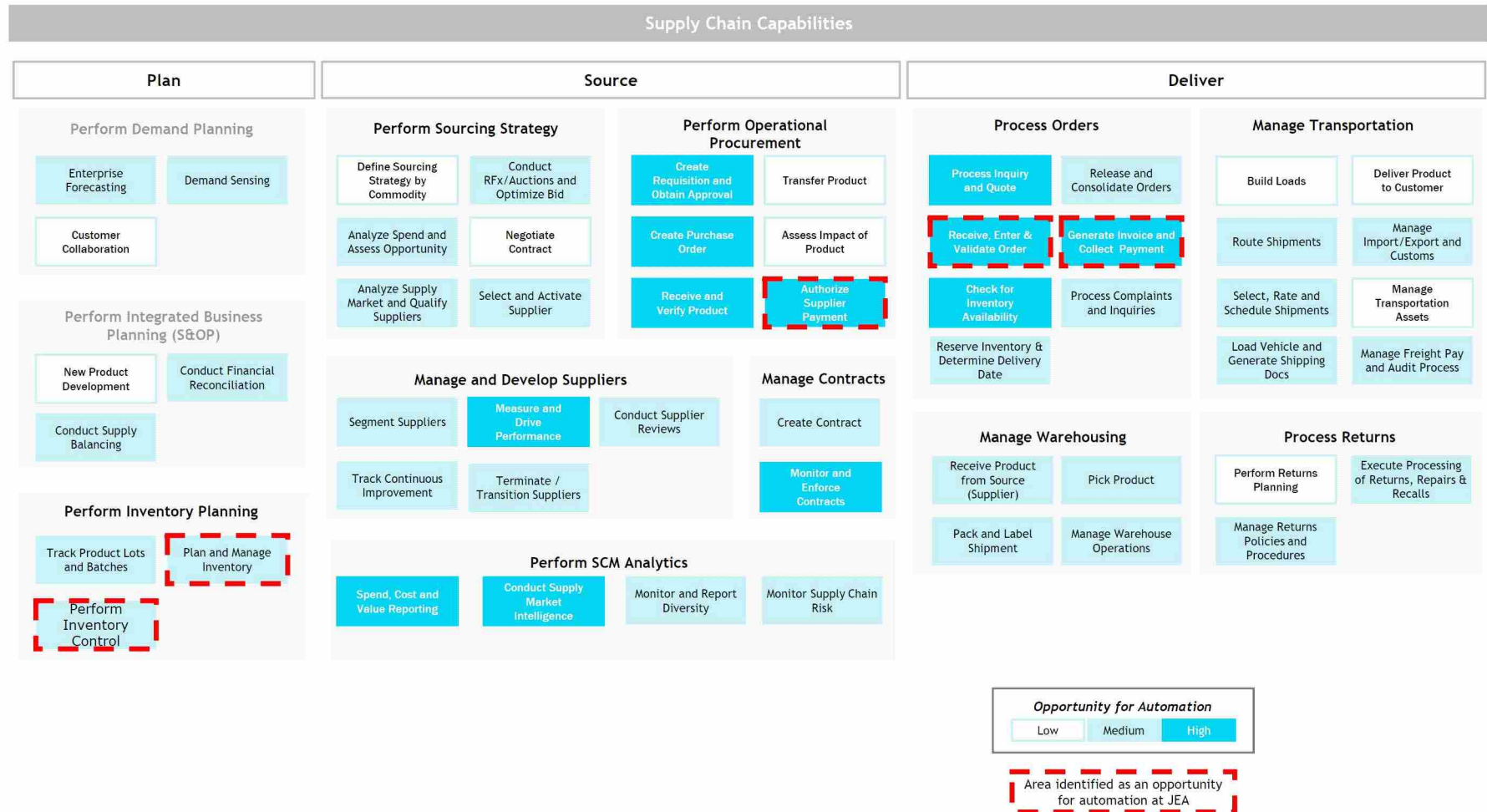
Service transition, Service Operations, and Lifecycle management processes are candidates for automation with via traditional PA or more bespoke IT automation solutions



Note: this chart represents a non-exhaustive list of potential automation opportunities at JEA

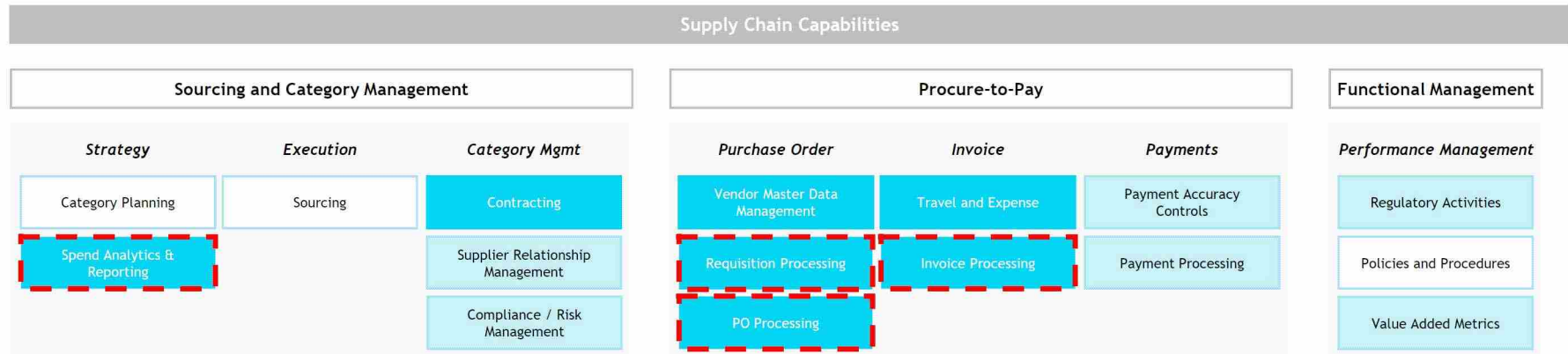
Process Automation Areas to Explore - Supply Chain

Organizations may utilize automation to improve supply chain process efficiency, particularly within operational procurement and order processing



Note: this chart represents a non-exhaustive list of potential automation opportunities at JEA

Process Automation Areas to Explore - Supply Chain (Cont'd)



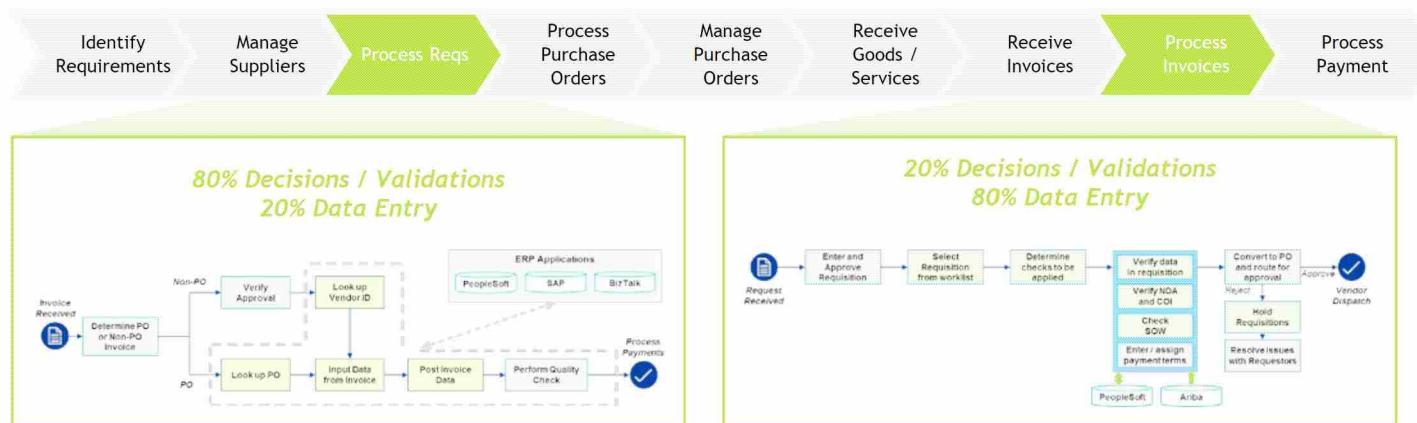
Area identified as an opportunity for automation at JEA

Note: this chart represents a non-exhaustive list of potential automation opportunities at JEA

Requisition and Invoice Processing Example (1 of 2)



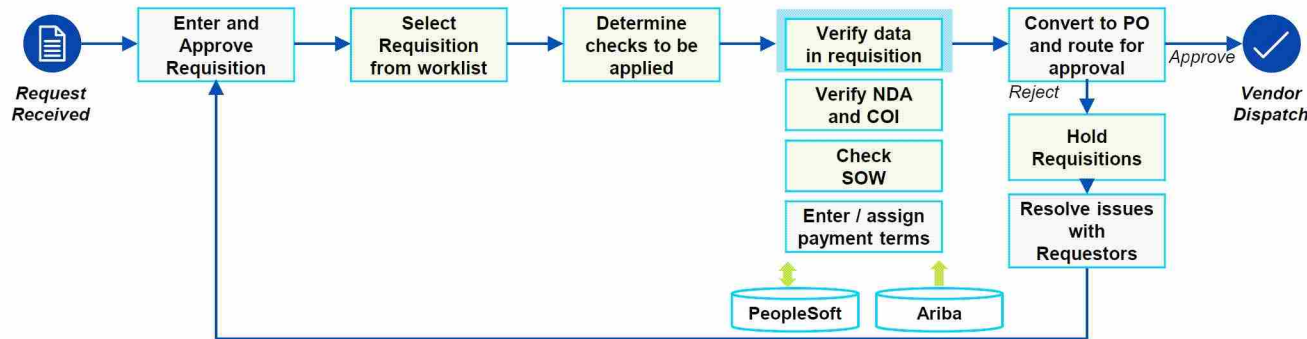
Business Challenge	Actions	Impact
<ul style="list-style-type: none"> Client has been operating shared services for Finance processes since 2003, across centers in North America, EMEA, and Asia After exploring how to evolve its mature, global shared services operation through Business Process Outsourcing (BPO), the client concluded that it can skip traditional BPO labor arbitrage and instead pioneer the use of emerging robotics for greater benefit Strong documentation was in place for the existing processes allowing for quick mobilization of the Robotics team 	<ul style="list-style-type: none"> Facilitated discussion to kick-off partnership and identify preliminary processes for automation build Documented processes, developed business requirements, built and implemented three automations Began build of additional 70 bots across North America, EMEA and Asia Commenced design of ongoing support model 	<ul style="list-style-type: none"> Positioned client to suspend negotiations with BPO providers Rapidly demonstrated that PA can produce up to five times an individual's throughput



Requisition and Invoice Processing Exmample (2 of 2)



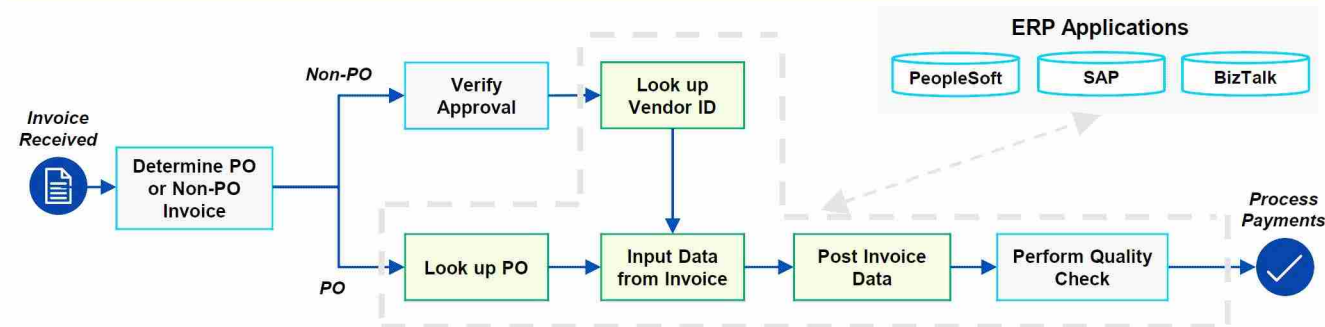
PA Enabled Future State - Requisition Processing



Key Metrics



PA Enabled Future State - Invoice Processing

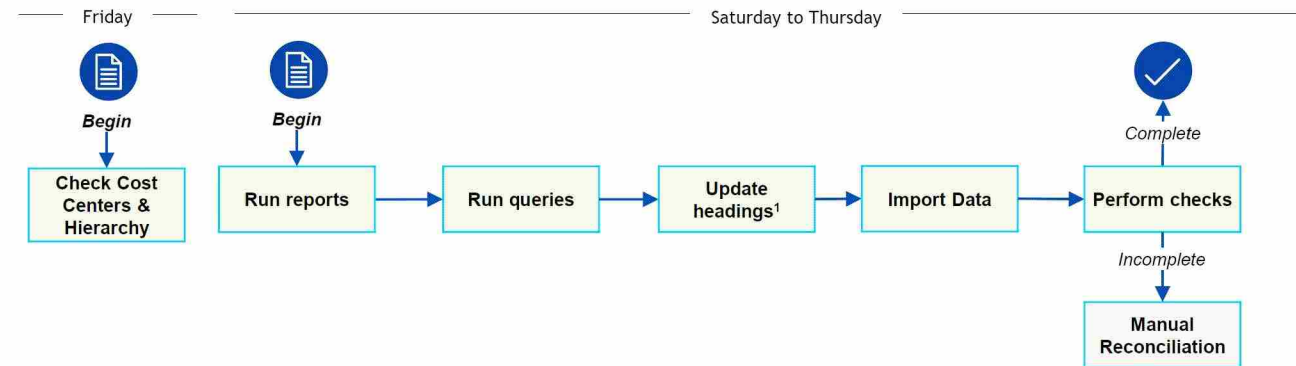


Key Metrics



Month-End Management Reporting Example

PA Enabled Future State - Month-End Management Reporting



Key Metrics



Notes:

¹ Update headings step is only performed on Sunday

² Reflects additional capacity during monthly closing period

Appendix

Technology - Opportunity Summary (1 of 3)

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target	Reach
Develop enterprise technology strategy	<ul style="list-style-type: none"> Produce a technology strategy (IT and OT) and 5 year roadmap that builds the technology capabilities to support overall business strategy Develop the processes and accountability to maintain the strategy and provide accountability Determine timing of IT/ OT convergence Prioritize technology projects 	↓ <i>Focus and priority reduces workload while improving talent levels</i>	↑ <i>Building/ enhancing core tech capability priority of strategy</i>	↑ <i>Directs spend into high value areas includes areas that are not resident</i>		↑ <i>Aligns platforms with customer needs</i>	↑ <i>Aligns platforms with employee needs</i>		
Redesign the TPC to be the technology strategy execution body	<ul style="list-style-type: none"> Approve projects that align with strategic priorities and timing, adhere to JEA's EA Proposed projects must include a resourcing plan that accounts for resource/ capability constraints - leveraging external support as needed Change management planning should be a requirement to approve any project 		↑ <i>Enhances readiness of technology projects and outcome realization</i>	↓ <i>Improves the cost efficiency of projects</i>		↑ <i>Aligns projects with strategic customer goals</i>	↑ <i>Aligns projects with strategic employee goals</i>		
Develop enterprise architecture (EA) capability	<ul style="list-style-type: none"> Construct an enterprise-wide EA capability (IT and OT) that enables JEA's technology strategy Develop the processes and tools to maintain and enforce the EA going forward Determine the technology staffing/ sourcing priorities based on the elements of the EA 	↓ <i>Eliminates work on one-off solutions</i>	↑ <i>Mandates secure, connected solutions</i>	↑ <i>More efficient management of tech portfolio</i>		↑ <i>Drives customer-centric solutions by process</i>	↑ <i>Enforces solution design process driven by business</i>		
Transition technology project budgets and overall accountability to business	<ul style="list-style-type: none"> Projects have to be aligned with business and technology strategy If internal Technology Operations cannot support project as needed than business can go outside of JEA if strategic timing warrants 	↓ <i>Limits projects to ones business is committed to</i>	↑ <i>Improves project preparation and resourcing</i>	↓ <i>Intent is to seek cost effective way to achieve need</i>					



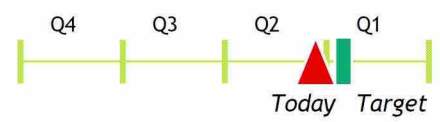


Technology - Opportunity Summary (2 of 3)

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target	Reach
Assign Technology Operations responsibility for project technical outcomes	<ul style="list-style-type: none"> Require Technology Operations certifies the following for each project: <ul style="list-style-type: none"> Internal and external options to achieve the project were considered in the business case Adequate resourcing is committed and funded to start including the business lead, technology project manager and change management Enterprise architecture standards are followed and documented 	↓ <i>Limits projects to ones stakeholders are committed to</i>	↑ <i>Improves project preparation and resourcing</i>	↓ <i>Intent is to seek cost effective way to achieve need</i>					
Mandate strict technology project documentation	<ul style="list-style-type: none"> Require projects to stop until the business lead physically signs off on the business, technical, testing, change and security requirements Creating a contractual relationship between the business and technology operations increases likelihood that desired outcomes are achieved 	↓ <i>Limits project spend to ones that are active</i>	↑ <i>Limits unnecessary staff commitments</i>	↓ <i>Intent is to seek cost effective way to achieve need</i>					
Prepare for Agile project development	<ul style="list-style-type: none"> Maintain waterfall approach until an agile process can be documented, socialized and agreed to by all participants The intensity and on-again/ off-again nature of agile project resourcing can be challenging to grasp Once agile method is understood and same rigor can be applied then leverage 	↓ <i>Limits project spend on a process that is not understood</i>	↑ <i>Limits unnecessary staff commitments</i>	↓ <i>Reduces cost impact of trying to leverage a misunderstood approach</i>					

Technology - Opportunity Summary (3 of 3)

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target	Reach
Develop enterprise data management capability build plan	<ul style="list-style-type: none"> Conduct a formal enterprise data management maturity assessment and factor the results into the technology strategic plan Leverage results from EAM data architecture project and account for all data other than included in the EAM data architecture project scope The results inform business and technology strategic roadmaps by prioritizing enterprise data management functionality improvement projects 	↑ <i>Enterprise data management is a new capability requirement</i>	↑ <i>Capability is needed to enable an insight driven organization</i>	↑ <i>Required spending to develop analytics and unlock efficiency</i>		↑ <i>Enables enhanced customer service</i>	↑ <i>Empowers staff to be innovative</i>		
Develop data governance and architecture	<ul style="list-style-type: none"> Identify the systems of records for all data - with focus on creating 'golden record' Develop the processes and governance to maintain the data layer of the EA and enable foundational and eventually advanced analytics 	↑ <i>Demand only growing for this capability</i>	↑ <i>Foundational data governance critical</i>	↑ <i>Requires spending to develop analytics to unlock efficiency</i>		↑ <i>Enables enhanced customer service</i>	↑ <i>Empower staff to be innovative</i>		
Source technology talent	<ul style="list-style-type: none"> Identify the critical skill sets today and in the future for JEA's technology organization Rebalance cost and service levels - especially for lower value IT functions - by 'variabilizing' costs where possible with third parties Consider leveraging TEA to source talent and/ or provision analytics platform 		↑ <i>Assigns work to staff with necessary skills</i>	↓ <i>Unit cost should decrease</i>	↓ <i>Politicians likely to view negatively if moved out of JAX</i>		↕ <i>Net impact positive due to improved service levels</i>	\$5.2 <i>20% savings from outsourced functions</i>	\$9.1 <i>30% savings from outsourced functions</i>
Build process automation factory	<ul style="list-style-type: none"> Build a process automation factory once a successful pilot is performed and a detailed inventory of manual processes is created Leverage the process improvement capabilities of the Black Belt team to reengineer processes Develop repeatable bot development and support processes to minimize cost of effort Constantly assess returns to the business to make sure ROI is positive 	↑ <i>Increases workload for Black Belts and Technology Operations</i>	↑ <i>Frees up resources across JEA to perform higher value tasks</i>	↓ <i>Cost to standup 'factory' paid for with quick ROI</i>			↑ <i>Relieves employees to focus on higher value work</i>		

Finance

Assessment	Alignment	Situation
<p>Capability Alignment with Utility 2.0</p> 	<p>Demand Levels</p> 	<ul style="list-style-type: none"> • Advancing capabilities, but manual processes are needed to compensate for technology systems that are unable to meet the demands of the business • Finance staff per \$1B in revenue is marginally higher than the P&U low cost performer • Demand levels are high; ad hoc requests and potentially unnecessary reporting contribute to high demand • Current service levels meet needs of business; must continue to reduce and re-scope ad hoc tasks, automate repetitive tasks, and enhance forecasting and planning • Cost levels are in line with best performers; labor rates equal to or slightly below top-performing peers
<p>Comparative Metrics</p> <p>Staff per \$1B in revenue</p> 	<p>Service Levels</p> 	
	<p>Cost Levels</p> 	

1. Finance is based on the function performed and not organizational structure, includes: Corp. Accounting, Corp. Finance, Tax, Internal Audit, Reporting & Budgeting, Bus. Dev., Gen. Accounting, Investments & Analysis, Property & Construction, and Cash Management
Source: JEA, Deloitte Global Benchmarking Center

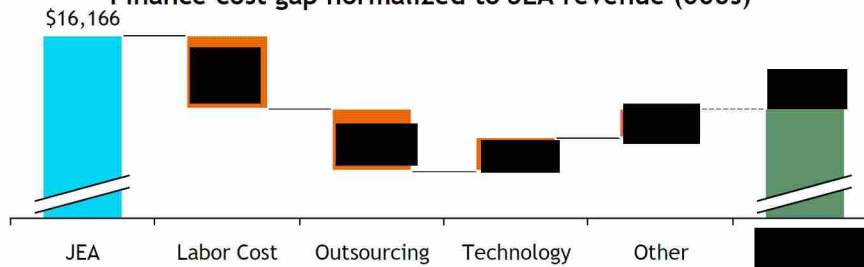
Finance - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Budgeting and Control: Maintain Profit and Loss (P&L) statements at the manager (i.e. cost center) level	\$1.90	\$2.85
Automate month-end management reporting	~2 days of added productivity per period for Accounting and Reporting team	
Automate accounts payable	\$0.10	\$0.20
Review reporting strategy & functional practices	Increases efficiency and productivity	
Total Savings	\$2.00	\$3.05

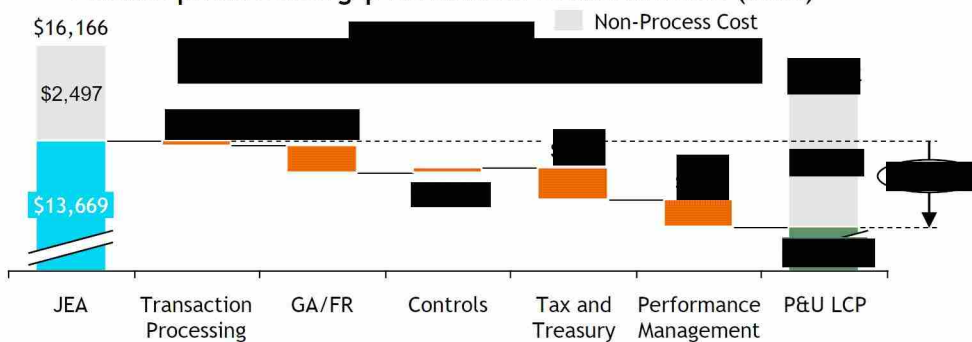
Note: See detailed opportunity summary in the appendix

Finance¹ Benchmark Analysis - Findings and Insights

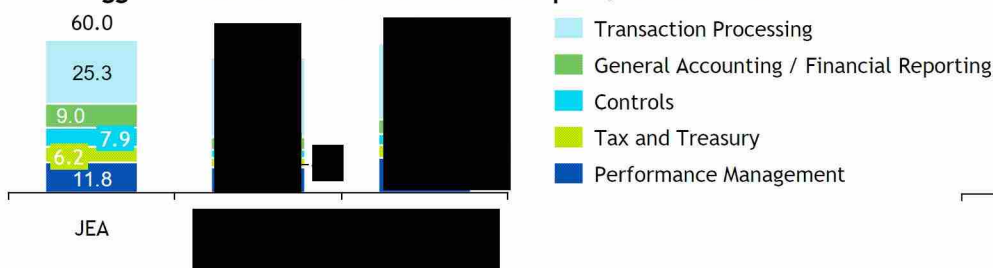
Finance cost gap normalized to JEA revenue (000s)³



Finance process cost gap normalized to JEA revenue (000s)²



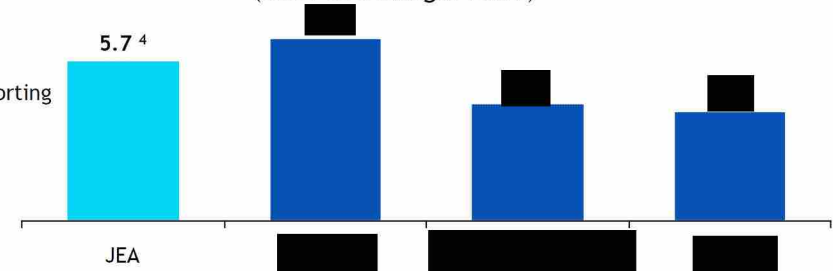
Suggested finance staff based on staff per \$1B in revenue



Key Findings and Insights

- Finance¹ has 107 staff, and associated labor costs of \$11.4M, (77% of total finance cost)
- Total Finance cost gap is driven by high to Labor and Outsourcing costs, which are offset by underweights to Technology and Other
- Finance process costs are higher than the [redacted] in each process other than controls (which makes up 9% of spend)
- Process cost gap is partially driven by staff size, which is above the [redacted] by 13% overall
- JEA has good span of control, but has 0.8 fewer staff to managers than the [redacted]
- Finance labor rates are 8% below the [redacted]
- Modest overstaffing but resources are skewed toward manual processes

Finance span of control (staff to manager ratio)



1. "Finance" is based on the function performed and not organizational structure, includes: Corp. Accounting, Corp. Finance, Tax, Internal Audit, Reporting & Budgeting, Bus. Dev., Gen. Accounting, Investments & Analysis, Property & Construction, and Cash Management
2. Process cost includes all labor and outsourcing costs - Labor includes all salaries and wages, benefits and incentives; outsourcing includes professional services
3. Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.7B to illustrate comparisons
4. Low cost performer is based on the peer set in the first quartile of total finance cost as a % of revenue



Note: Technology cost (\$1.3M) is calculated as allocation of IT costs proportional to finance's share of overall O&M spend and has been added to finance cost of \$14.8M; Other is calculated as the remainder of finance cost after labor and outsourcing

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Budgeting and Controls Process

The budget process (e.g., creation and review) is in line with best practices in the industry, but the existence of unowned cost centers and a lack of ownership of full budgets leads to sub-optimal results

Accountability

- Unowned cost centers lead to lack of transparency and dearth of active management of costs

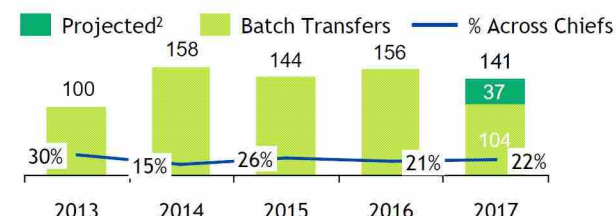
Expense type description (\$M)	ZCC	Old JEA dpt.
Salaries, OT, and benefits	\$12	\$0
Intercompany charges	46	--
Other services & charges	2	--
Insurances	6	--
Credits	(49)	(0)
O&M	19	0
Fuel & purchased power	397	29
Other ¹	883	15
Total expenses	\$1,298	\$44

Ownership

- Managers are only held accountable for non-labor costs (~45% of the budget), resulting in a skewed alignment of incentives; for example,
 - A manager is incentivized to hire a full-time worker instead of a temporary contractor because a contractor hits Other Services & Charges (i.e. part of the managed budget), whereas a full-time worker hits Labor (i.e., part of the un-managed budget)
- Delegating P&L ownership to managers will simultaneously empower them and hold them more accountable

Budget Transfers

- Between FY2013-17, an average of **\$19M per year** was transferred inter-departmentally across an average of 132 batches, causing concern that there are recurring performance issues are not being addressed (median transfer value of \$37k)
 - 34% occur between August - October (in preparation for / reaction to year end)
 - 22% have been across chiefs since 2012, 77% of which involve the Zero Cost Center



Recommendation

- Assign ownership across all cost centers to ensure accountability for each cost and enhance transparency*
- Delegate complete ownership of the P&L to the managers at the cost center level to enable them to manage the entire business*
- Leverage business intelligence to improve forecasting accuracy and reduce budget transfers, which may be hiding underlying performance issues*

Sources: JEA board meeting packet, 17.05.16 Agenda and Board Meeting.pdf, JEA Transfer log.xls; numbers may not add due to rounding

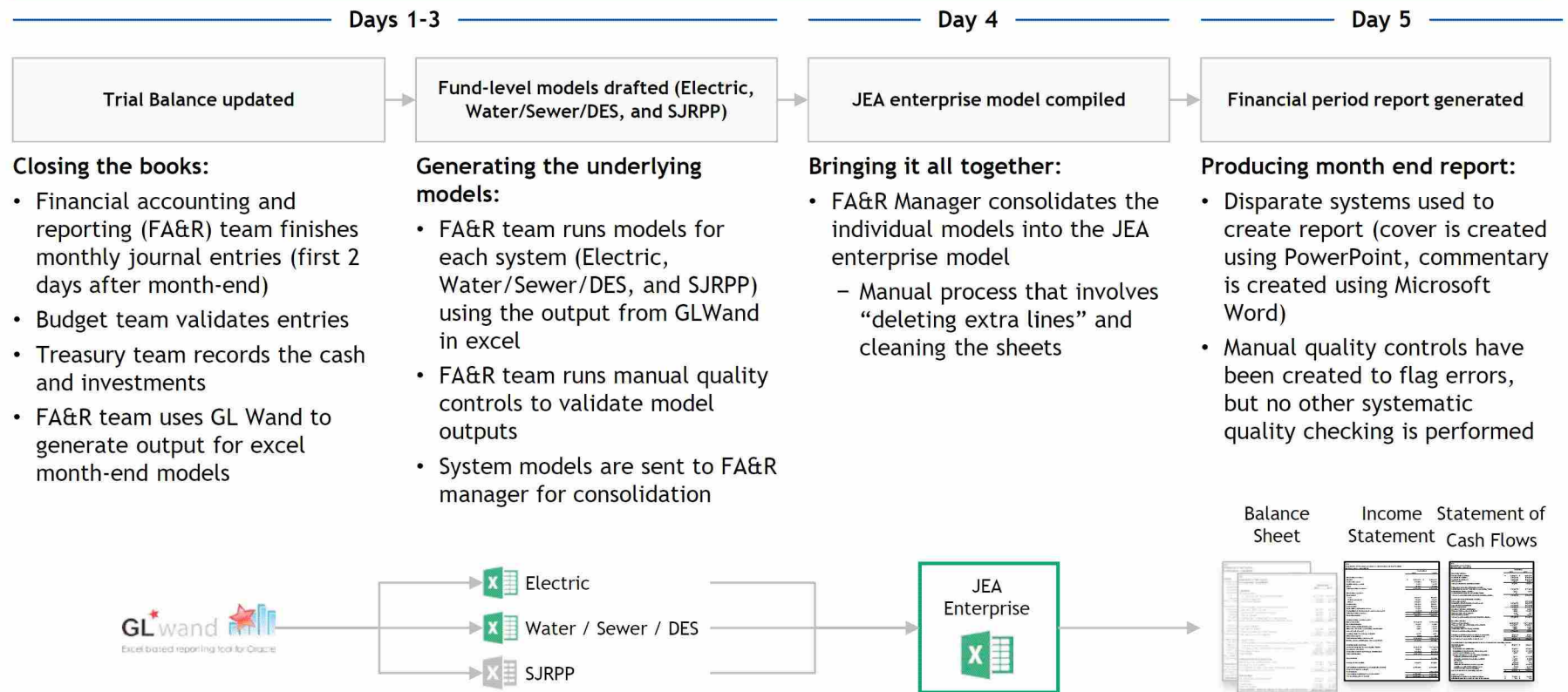
1. Other includes Non-fuel purchased power, general fund contribution, debt service, Trf. to R&R fund, uncollectable accounts, operating capital outlay, transfers & agreements, and PSC commission fees

2. Projected batch transfers in FY17 are based on the 5-year historical average transfers that take place in August and September

Automate month-end management reporting

Creating the JEA financial statements involves a highly manual process that uses excel models to manipulate Oracle outputs to map accounts to their associated line items in the financial statements

Creating the Balance Sheet



Recommendation

- Investigate current JEA software to understand capabilities for automating elements of period-end financial reporting process
- Improve ongoing systems training for finance employees to ensure that systems are being leveraged to fullest extent

Source: JEA Interviews

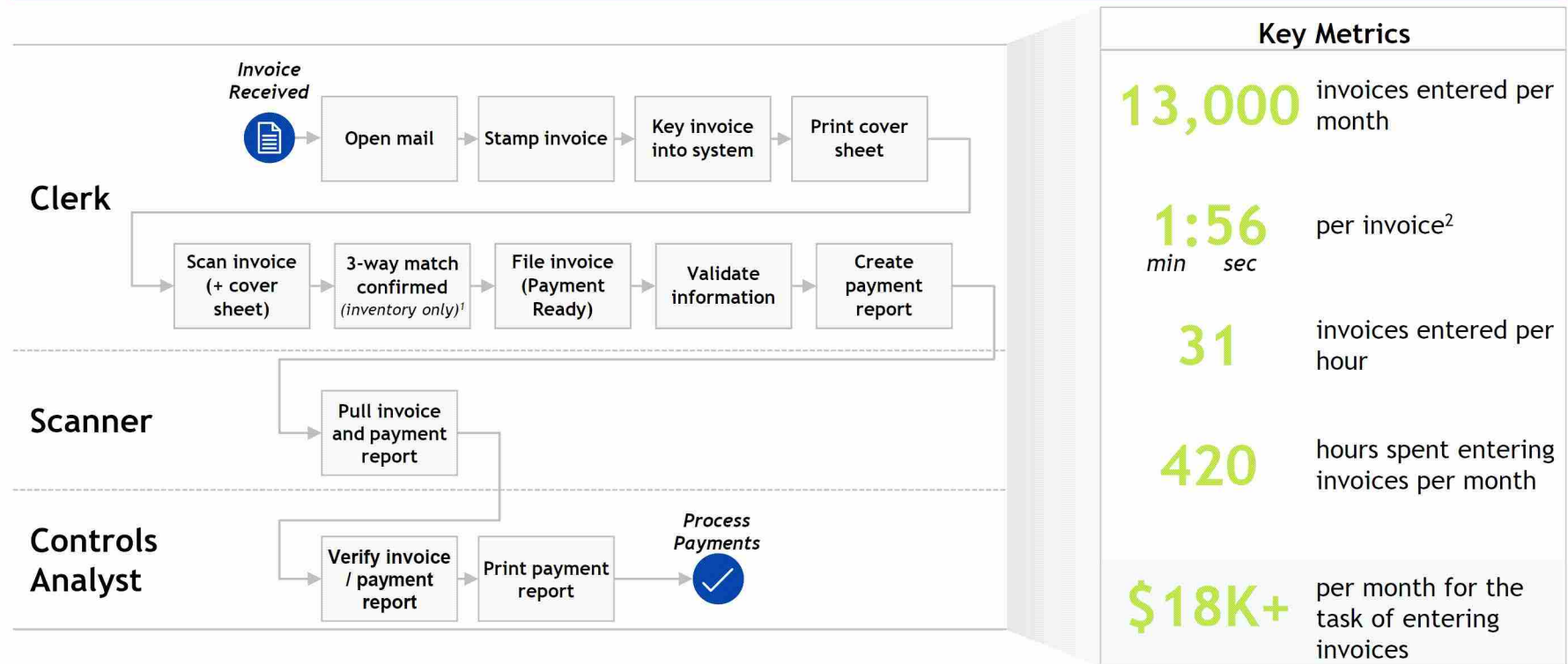


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Automate Accounts Payable

Invoicing is a significant bottleneck for the Accounts Payable function - the end-to-end process to enter an invoice is highly manual, is touched by 3 people, and takes approximately 15 minutes

Standard Invoicing Process (no issues)



Recommendation

- Automate the invoice entry process within the accounts payable department, and implement procure to pay to process invoices from all procured materials and services with the least amount of resources and need for discrepancy resolutions

Source: JEA Interviews, Deloitte Analysis

Notes: Assumes an average hourly labor rate of \$44 based on JEA actual spend on salaries, OT, and benefits in 2016

1. There are \$450M of standard, non-inventory invoices that do not go through three-way match

2. Best practices for invoice processing is 26 seconds per invoice

Miscellaneous Demand on Finance

There are several processes that add incremental demand to the finance organization, the financial accounting and reporting team in particular

Reporting: Process & Strategy

- Inclusion of unnecessary analyses in internal and external reports (e.g., non-financial sections) in the financial statement reports (8-16 hours per month to complete)
 - Schedules of Debt Service Coverage, Outstanding Indebtedness, Investment Portfolio, Interest Rate Swap Position Report, Operating Statistics, Production Statistics, SJRPP Sales and Purchased Power
- Internal monthly report demands significant time from finance team
- Printing of external reports is outsourced to graphics company, artificially pushing up the deadline

Journal Entry

- Manual process that invites human error in multiple steps
- Lacks a standard approval hierarchy
- Lacks auditing capability that provides clear view of the entries that have been made and their associated approvals
 - Currently, there are multiple people who can create and post entries with no approval needed
- Multiple groups can upload journal entries
- Supporting documentation is attached to final entry following final approval (leaving room for human error in the attachment process)

Chart of Accounts / Cost Centers

- Conduct audit of COA to ensure compliance with FERC Uniform system of accounts
- Methodology is not well explained for non-accounting team members
 - List of 1,653 accounts is all that exists for finding the account value
 - 181 accounts are not classified
- A good COA governance process helps **prevent duplicate values** from being defined across various accounting segments in the COA, maintains a **proper approval process for definitions of new accounting segment values**, and **enables efficient and accurate financial and management reporting**
- Current Cost Center classification has a non-existent (or unclear) naming methodology

Recommendation

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> • <i>Turn on functionality in financial technology products / systems to generate necessary reports automatically</i> • <i>Move to paperless reports</i> | <ul style="list-style-type: none"> • <i>Existing functionality within Oracle just needs to be turned on and tested; supporting documentation can be linked directly and stored digitally</i> | <ul style="list-style-type: none"> • <i>Audit chart of accounts for compliance with FERC standards, document value assignment methodology, and update sub-ledgers linked to COA</i> • <i>Align on common naming methodology for cost centers, and update sub-cost centers accordingly</i> |
|---|---|---|

Sources: JEA monthly financial statements; JEA interviews

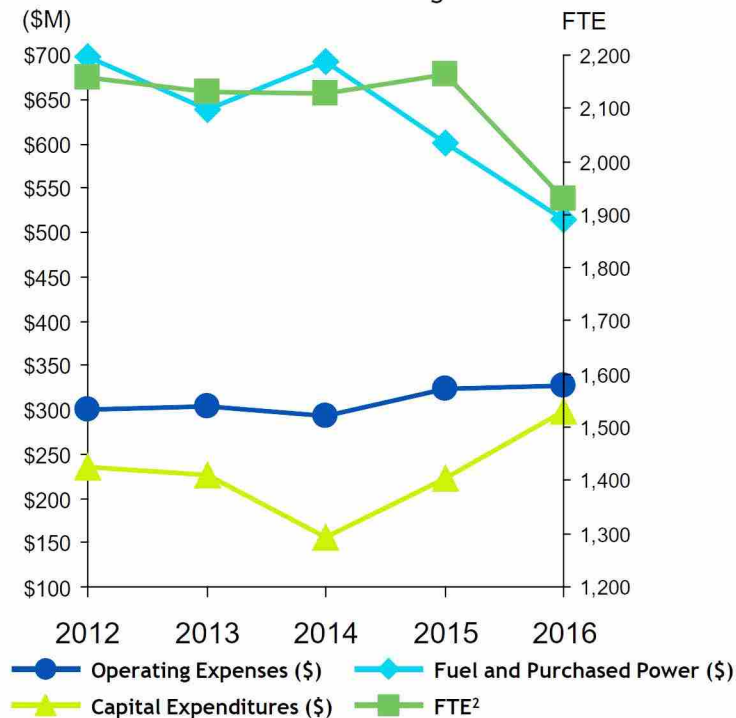
APPENDIX

Finance - Opportunity Detail

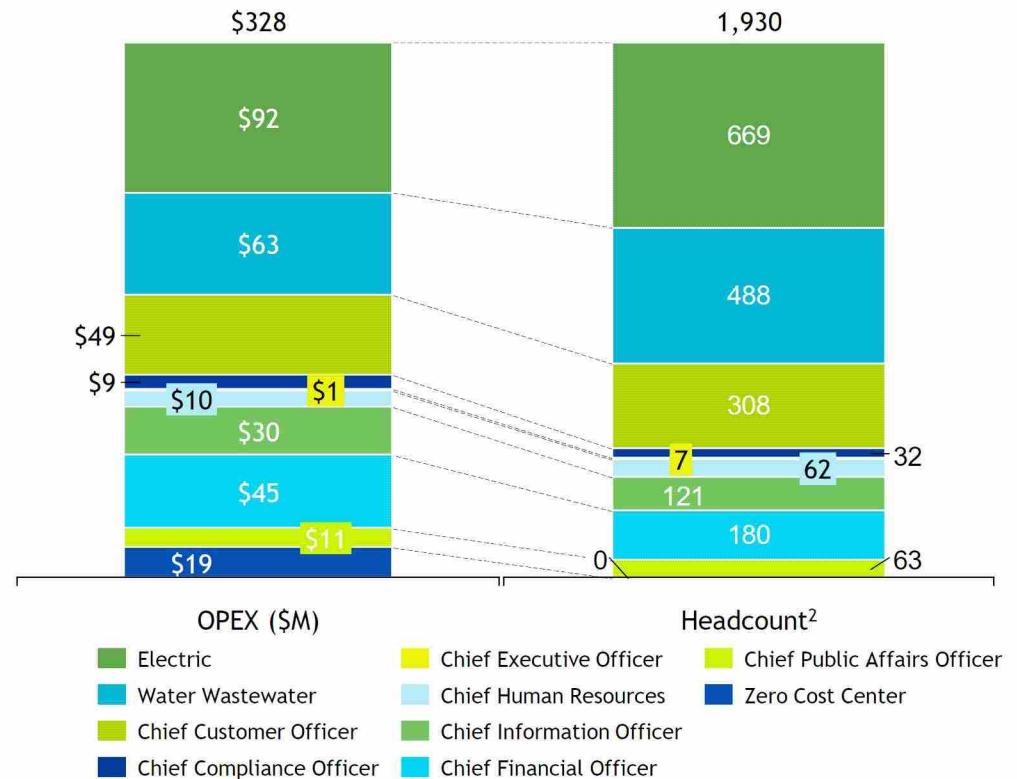
Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Maintain Profit and Loss (P&L) statements at the manager (i.e. cost center) level	<ul style="list-style-type: none"> Manager P&L rolls up into director and then to Chief/VP levels Enhances accountability in the business by ensuring each cost center has a corresponding manager Empowers managers by giving them ownership of full P&L (including FTE-related line items) Illustrates importance of forecasting capabilities and accountability to reduce inter-departmental transfers, which may be a symptom of underlying performance issues 	↓ <i>Enhanced accountability improves accuracy and reduces transfers</i>	↑ <i>Improves effectiveness and gives better view of business</i>	↓ <i>No costs, productivity gains should reduce costs</i>			↑ <i>Empowers business leaders and frees up finance team time</i>	\$1.90 <i>Assumes 10% savings of annual budget transfer costs</i>	\$2.85 <i>Assumes 15% savings of annual budget transfer costs</i>
Automate month-end management reporting	<ul style="list-style-type: none"> Implement full capabilities within financial technology systems suite to facilitate the production of the financial statements for accounting and reporting purposes Implement ongoing training to ensure staff are aware of full suite of financial capabilities 	↓ <i>Reduces workload at period-end</i>	↑ <i>Improves accuracy, efficiency, and value-added work</i>	↔ <i>Up-front costs offset with improved efficiency</i>			↑ <i>Frees up finance team time</i>	<i>Improved productivity (~2 days of added productive time per period for Accounting and Reporting team)</i>	
Automate accounts payable	<ul style="list-style-type: none"> Automate invoice generation and eliminate invoice entry by enabling supplier invoices to be transmitted electronically using electronic data interchange (EDI) or Internet file transfers 	↓ <i>Reduces workload via automation</i>	↑ <i>Improves accuracy, efficiency, and visibility</i>	↔ <i>Cost to standup system</i>			↑ <i>Positive, due to improved service level</i>	\$0.10 <i>Assumes 50% savings of AP cost</i>	\$0.20 <i>Assumes 85% savings of AP cost</i>
Review reporting strategy & functional practices	<ul style="list-style-type: none"> Reassess reporting needs, automate report generation, and reduce printed reports Turn on journal entry functionality, begin testing, and introduce approval hierarchy Audit COA to ensure compliance with FERC standards Standardize cost center naming methodology to simplify structure 	↓ <i>Reduces workload for one-off requests</i>	↑ <i>Improves accuracy, efficiency, and value-added work</i>	↓ <i>No costs, productivity gains should reduce costs</i>			↑ <i>Positive, due to optimized demand / service levels</i>	<i>Increases efficiency and productivity by reducing wasted time on manual, unnecessary labor creating unused reports</i>	

Cost and Staffing Baseline

JEA OpEx, CapEx, Fuel, and FTE
2012 through 2016



JEA 2016 O&M and FTE



Takeaways

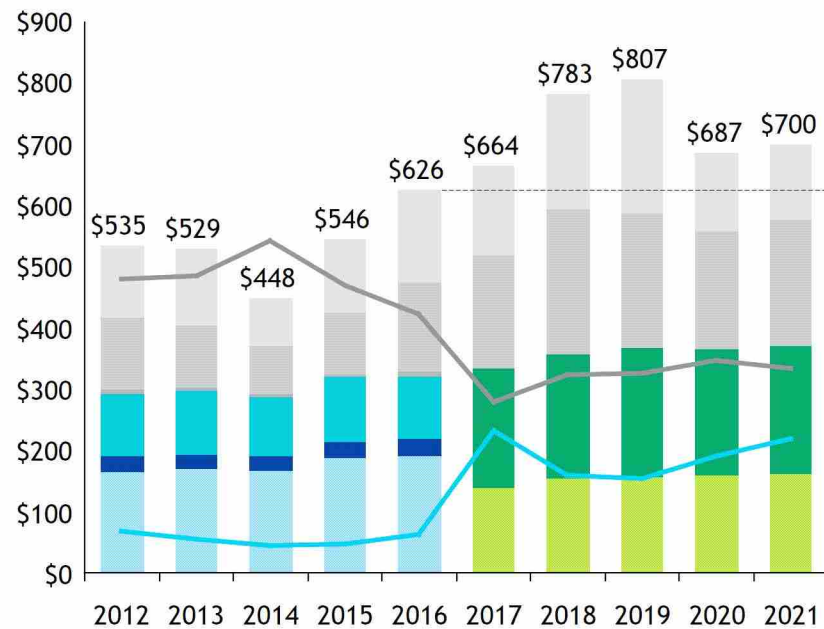
- Since 2014, there has been upward pressure on capital expenditures
- O&M has remained level over previous 5 years
- Fuel and Purchased Power costs have declined 26% since peaking in 2014

1. Fuel and Purchased Power includes rate stabilization transfer - fuel and non-fuel purchased power
 2. Electric FTE detail for 2016 excludes 201 FTEs from SJRPP. Chief Executive Officer headcount includes 6 executive assistants
 Source: JEA historical and forecast financials, Deloitte Analysis

Cost and Staffing Baseline

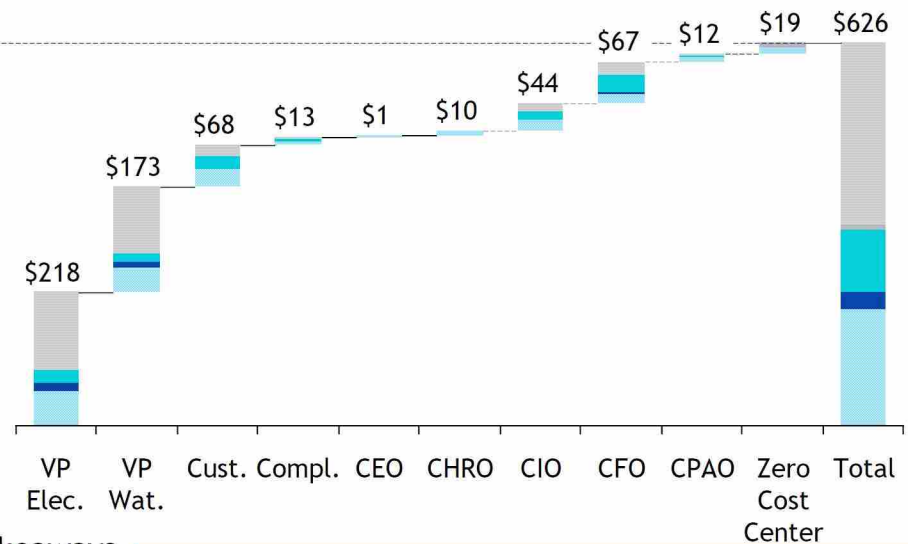
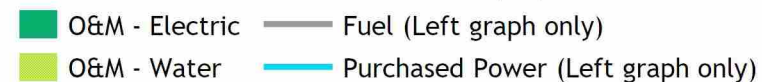
JEA Expense History & Forecast

2012 through 2021 (\$M)



JEA Non-Fuel Spend by Chief

2016 (\$M)



Takeaways

- Expenses have grown by 4% since 2012 but are expected to flatten out (1% growth) through 2021
- Capital expenditures are projected to peak in 2018 and 2019 after increasing 182% from their low in 2014

1. FY 17 represents current forecast. FY 18-21 From CAPEX Project Listing as of 5/31/17

2. Other includes: intercompany charges, insurances, wastewater treatment purchase, purchased water, contracts and contingencies, and water billing credits

Source: JEA historical and forecast financials, Deloitte Analysis

Finance Taxonomy

Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
Accountant	Financial and Logistical Services	Accounting Services	Accounting Services	General Accounting / Financial Reporting
Accountant Senior	Financial and Logistical Services	Accounting Services	Accounting Services	General Accounting / Financial Reporting
Controller	Financial and Logistical Services	Accounting Services	Accounting Services	Controls
Financial Analyst Senior Accounting	Financial and Logistical Services	Accounting Services	Accounting Services	General Accounting / Financial Reporting
Financial Reporting Analyst Sr	Financial and Logistical Services	Accounting Services	Accounting Services	General Accounting / Financial Reporting
Financial Reporting Specialist	Financial and Logistical Services	Accounting Services	Accounting Services	General Accounting / Financial Reporting
Mgr Financial Accounting & Reporting	Financial and Logistical Services	Accounting Services	Accounting Services	General Accounting / Financial Reporting
Mgr Project Accounting	Financial and Logistical Services	Accounting Services	Accounting Services	Transaction Processing
Mgr Tax Administration	Financial and Logistical Services	Accounting Services	Accounting Services	Tax and Treasury
Audit Services Analyst	Compliance	Audit Services	Audit Services	Controls
Dir Audit Services	Compliance	Audit Services	Audit Services	Controls
Enterprise Risk Management Analyst	Compliance	Audit Services	Audit Services	Controls
Information Technology Auditor	Compliance	Audit Services	Audit Services	Controls
Mgr Audit Services	Compliance	Audit Services	Audit Services	Controls
Mgr Enterprise Risk Mgmt	Compliance	Audit Services	Audit Services	Controls
Mgr Ethics Investigations & Audit	Compliance	Audit Services	Audit Services	Controls
Senior Auditor	Compliance	Audit Services	Audit Services	Controls
Senior Ethics Auditor	Compliance	Audit Services	Audit Services	Controls
Accountant	Customer Relationships	Customer Revenue	Billing	Transaction Processing
Accountant Senior	Customer Relationships	Customer Revenue	Billing	Transaction Processing
Customer Care Consultant	Customer Relationships	Customer Revenue	Billing	Transaction Processing
Customer Care Specialist	Customer Relationships	Customer Revenue	Billing	Transaction Processing
Financial Analyst Senior Customer Revenue Services	Customer Relationships	Customer Revenue	Billing	Transaction Processing
Mgr Billing Support Services	Customer Relationships	Customer Revenue	Billing	Transaction Processing
Financial Analyst Senior Capital Budget Planning	Financial and Logistical Services	Financial Planning Budgets & Rates	Capital Budget Planning	Performance Management






Finance Taxonomy

Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
Financial Associate	Financial and Logistical Services	Financial Planning Budgets & Rates	Capital Budget Planning	General Accounting / Financial Reporting
Mgr Capital Budget Planning	Financial and Logistical Services	Financial Planning Budgets & Rates	Capital Budget Planning	Performance Management
Project Cost Specialist Senior	Financial and Logistical Services	Financial Planning Budgets & Rates	Capital Budget Planning	Transaction Processing
Financial Analysis Specialist Planning & Rates	Financial and Logistical Services	Financial Planning Budgets & Rates	Financial Planning & Rates	Performance Management
Financial Analyst Senior Financial Planning & Rates	Financial and Logistical Services	Financial Planning Budgets & Rates	Financial Planning & Rates	Performance Management
Mgr Financial Planning & Rates	Financial and Logistical Services	Financial Planning Budgets & Rates	Financial Planning & Rates	Performance Management
Dir Financial Planning & Analysis	Financial and Logistical Services	Financial Planning Budgets & Rates	Financial Planning, Budgets and Rates	Performance Management
Financial Analysis Specialist	Financial and Logistical Services	Financial Planning Budgets & Rates	Operating Budgets	General Accounting / Financial Reporting
Financial Analyst Senior Operating Budget	Financial and Logistical Services	Financial Planning Budgets & Rates	Operating Budgets	Performance Management
Mgr Operating Budgets	Financial and Logistical Services	Financial Planning Budgets & Rates	Operating Budgets	Performance Management
Black Belt	Financial and Logistical Services	Strategic Development & Execution	Performance Improvement	Performance Management
Black Belt Candidate	Financial and Logistical Services	Strategic Development & Execution	Performance Improvement	Performance Management
Master Black Belt	Financial and Logistical Services	Strategic Development & Execution	Performance Improvement	Performance Management
Mgr Performance Improvement	Financial and Logistical Services	Strategic Development & Execution	Performance Improvement	Performance Management
Account Clerk Senior	Financial and Logistical Services	Supply Chain Management	Procurement - Accounts Payable	Transaction Processing
Accounts Payable Controls Analyst	Financial and Logistical Services	Supply Chain Management	Procurement - Accounts Payable	Transaction Processing
Mgr Procurement Accounts Payable	Financial and Logistical Services	Supply Chain Management	Procurement - Accounts Payable	Transaction Processing
Procurement Card Coordinator	Financial and Logistical Services	Supply Chain Management	Procurement - Accounts Payable	Transaction Processing
Account Clerk Senior	Customer Relationships	Customer Revenue	Receivables and Collections Services	Transaction Processing

Finance Taxonomy

Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
Customer Care Consultant	Customer Relationships	Customer Revenue	Receivables and Collections Services	Transaction Processing
Customer Care Group Leader	Customer Relationships	Customer Revenue	Receivables and Collections Services	Transaction Processing
Customer Care Specialist	Customer Relationships	Customer Revenue	Receivables and Collections Services	Transaction Processing
Mgr Customer Assistance Programs	Customer Relationships	Customer Revenue	Receivables and Collections Services	Transaction Processing
Mgr Receivables & Collection Services	Customer Relationships	Customer Revenue	Receivables and Collections Services	Transaction Processing
Payment Processing Team Leader	Customer Relationships	Customer Revenue	Receivables and Collections Services	Transaction Processing
Customer Care Consultant	Customer Relationships	Customer Revenue	Revenue Assurance	Transaction Processing
Customer Care Specialist	Customer Relationships	Customer Revenue	Revenue Assurance	Transaction Processing
Mgr Revenue Assurance Services	Customer Relationships	Customer Revenue	Revenue Assurance	Transaction Processing
Dir Risk Mgmt Services	Compliance	Risk Management Services	Risk Management Services	Tax and Treasury
Risk Mgmt Specialist	Compliance	Risk Management Services	Risk Management Services	Tax and Treasury
Dir Corporate Strategy	Financial and Logistical Services	Strategic Development & Execution	Strategy Development and Execution	Performance Management
Special Project-EAM	Financial and Logistical Services	Strategic Development & Execution	Strategy Development and Execution	Performance Management
Bond Administration Specialist	Financial and Logistical Services	Treasury Services	Treasury Services	Tax and Treasury
Bond Compliance Specialist	Financial and Logistical Services	Treasury Services	Treasury Services	Tax and Treasury
Cash Management Analyst	Financial and Logistical Services	Treasury Services	Treasury Services	Tax and Treasury
Debt Financial Analyst	Financial and Logistical Services	Treasury Services	Treasury Services	Tax and Treasury
Mgr Cash & Investments	Financial and Logistical Services	Treasury Services	Treasury Services	Tax and Treasury
Office Support Associate	Financial and Logistical Services	Treasury Services	Treasury Services	Performance Management
Portfolio Specialist	Financial and Logistical Services	Treasury Services	Treasury Services	Controls
Treasurer	Financial and Logistical Services	Treasury Services	Treasury Services	Tax and Treasury

Human Resources

Assessment	Alignment	Scenario
<p>Capability Alignment with Utility 2.0</p> 	<p>Demand Levels</p> 	<ul style="list-style-type: none"> • Outdated HR systems - manual processes created to compensate for systems unable to perform basic functional tasks • HR costs as percent of revenue exceed the median by \$4M • As-needed hiring processes increase internal demand, creating reactive recruiting and limiting planning • Minimum service levels being met with workarounds, but missing basic functionality (e.g., planning) • Cost levels exceed highest cost performing peers due to high labor rates and overstaffing
<p>Comparative Metrics</p> <p>HR Cost as a percent of revenue</p> 	<p>Service Levels</p> 	
	<p>Cost Levels</p> 	

1. "HR" is based on the function performed and includes all cost centers that roll up to the Chief Human Resources Officer
Source: Deloitte Global Benchmarking Center and JEA data

Human Resources - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Upgrade Internal HR Technology Systems	\$1.13	\$4.14
Reconfigure the recruiting process	\$0.12	\$0.62
Create change management team	(\$0.16)	(\$0.40)
Total Savings	\$1.09	\$4.36

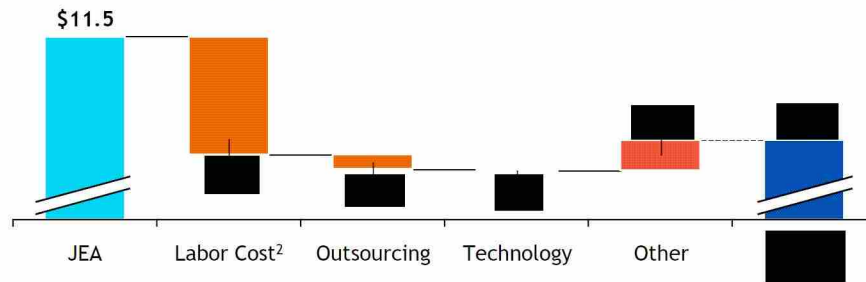
Note: See detailed opportunity summary in the appendix



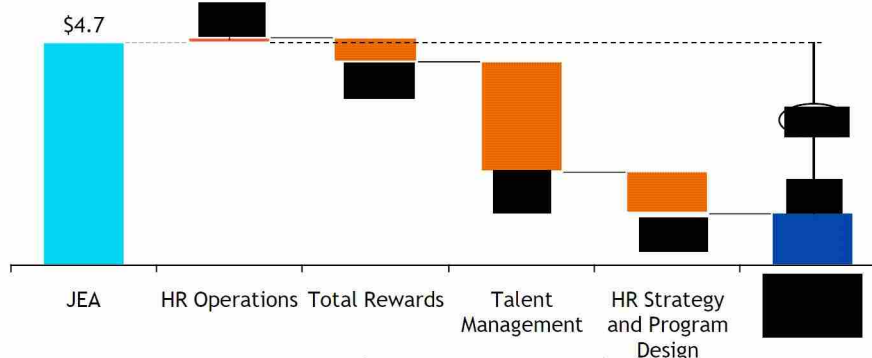
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Findings and Insights

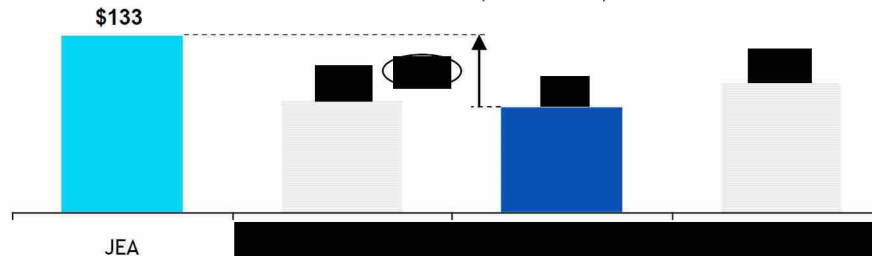
HR cost gap normalized to JEA revenue (USD M)³



HR process cost² gap per employee (USD 000s)



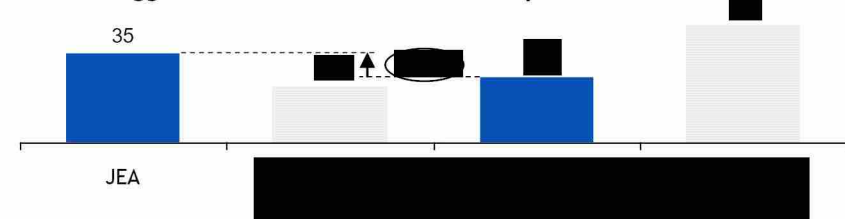
HR Labor Rate (USD 000s)



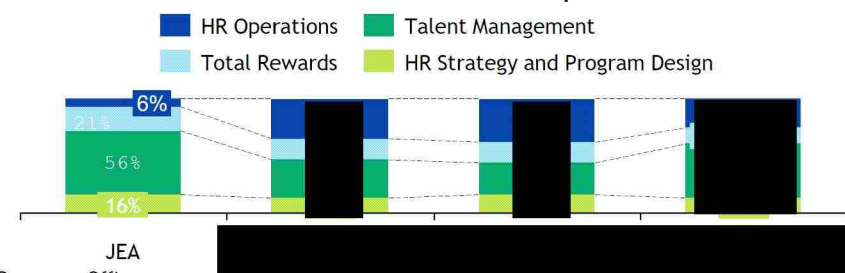
Key Findings and Insights

- Human Resources¹ 2016 O&M is \$11.5M (0.6% of revenue) and has 62 staff and associated labor costs of \$8.3M (72% of total HR cost)
- Total HR cost as a % of revenue is 55% higher than the median, driven primarily by higher labor costs
- Total HR cost gap from the median (\$4.1M) is driven primarily by the labor rate (\$3.0) and staff size (\$1.6)
 - HR labor rate is 67% overweight
 - HR staff is 35% overweight based on staff per \$1B in revenue
- HR process cost gap of \$3,600 per employee from the median is driven by a skewed staff distribution with a significant overweight in talent management (64%) due to the complete lack of functional technology systems

Suggested HR staff based on staff per \$1B in revenue



HR staff distribution across capabilities



- "HR" is based on the function performed and includes all cost centers that roll up to the Chief Human Resources Officer
- Process cost includes all labor and outsourcing costs (Labor includes all salaries and wages, benefits and incentives; Outsourcing consists of professional services)
- Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.8B to illustrate comparisons
- Low cost performer is based on the peer set in the first quartile of total human resources cost as a % of revenue, high cost performer is the 3rd quartile of cost as a % of revenue



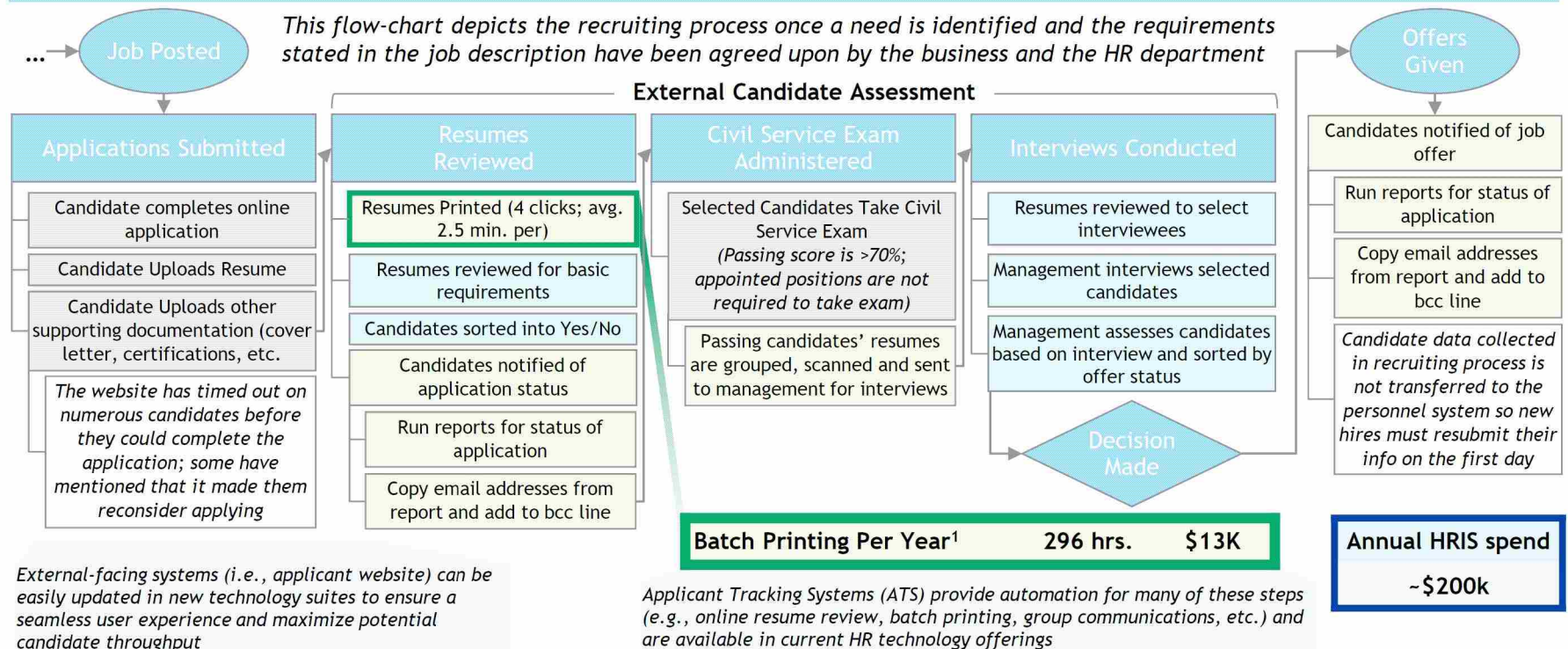
Note: Technology cost is calculated as allocation of IT costs proportional to HR's share of overall O&M spend; Other consists of supplies, materials, and other services & charges (excluding professional services)
Source: Deloitte Global Benchmarking Center and JEA data

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Update HR Technology Systems

JEA's HR function is complex for many reasons (e.g., skilled labor needs, civil service requirements, unions, etc.), but it is further encumbered by its **manual processes**; HR technology systems must be updated or replaced if JEA hopes to keep up with the continually increasing demand placed on the function expected after transition away from defined benefit

JEA Recruiting Process (manual process example)



Recommendation

- Upgrade HRIS - select resource / staff planning / forecasting requirement and talent management processes; determine whether to reconfigure Oracle HR modules, move to the Oracle HR cloud, or re-platform to a new non-Oracle system

Source: JEA Interviews, Deloitte Analysis

1. Calculated by multiplying the average applications per job opportunity (37) by 2.5 minutes per application by expected job openings this year (192) by average hourly wage (\$44)



Key:

□ Candidate action within process □ JEA action within process □ JEA action within process that could be automated

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Modernize Talent Management

JEA's Workforce Analytics and Planning mechanisms cannot leverage Oracle tools due to lack of data integrity in the system, resulting in a manual process to assess position control metrics; JEA recruiting requirements are not being enforced, resulting in bulging labor costs and long hiring processes due to lack of planning

Leverage B.I. Dashboards

- JEA maintains three business intelligence dashboards manually amounting to **552 hours annually (~\$35K/year):** (*dashboard - hours spent per update/ update frequency*)
 - Headcount/allocation/turnover - 16hr/M
 - Demographic/attrition risk - 120hr/6M
 - Business Unit attrition risk - 120hr/12M
- Each dashboard iteration involves **manual, offline human analysis** of Oracle iRecruitment outputs in Excel models
- Analysis capacity is focused on managing active and historical dashboards and databases with **limited forward-looking capabilities** due to minimal access to technology tools / support
- Departmental archive of workforce data is an unreliable source for recounting actual history due to constant revisions, presenting an **audit liability**

Utilize Succession/Vacancy Planning

- Workforce analysis is encumbered by ever-changing data in Oracle (“2 headcount reports run back-to-back would give 2 different answers”)
- Inconsistent use of workforce planning dashboards due to lack of standardized process to leverage findings
- In many cases, business owners are recruiting for positions on an as-needed basis as opposed to proactively recruiting based on anticipated needs, thus placing avoidable demand on HR
- As attrition rates climb (following 10/1, attrition rates are expected to top 15%), the business analytics team will have increased demand

Enforce Recruiting Requirements

- Teams are hiring for the person and not the position (i.e. selecting over-qualified candidates) resulting in higher-than-budgeted salaries
- Infrequent updates to job requirements leave HR department with outdated job descriptions and can result in wasted recruiting efforts when candidates do not match the needs of the business
- Creating the Job competency exams can take 6-8 weeks, and there is no central repository of competency exams for HR to pull from

Recommendation

- *Develop dynamic business intelligence platform that automates workforce forecasting and planning to better serve the needs of the business*
- *Make business unit accountable for labor cost to incentivize utilization of workforce planning tools and metrics to proactively plan recruiting cycles*
- *Enforce disciplined guidelines around hiring practices to ensure role-fit*
- *Revisit job descriptions more frequently*
- *Proactively create job competency exams*

Sources: JEA interviews; JEA business intelligence dashboards

Notes: Assumes an average hourly labor rate of \$63 based on JEA actual spend on salaries, OT, and benefits in 2016



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Change Management Team

Implementing significant organizational change necessitates a dedicated team that can be called upon to deliver the following core competencies throughout the transition to enable its success

Change Preparation

Prepare for the transition by conducting activities at the outset to establish:

- **Alignment:** understand how to align and involve key leaders to drive buy-in across the organization
- **Engagement:** engage key stakeholder groups and prepare them for their roles in the change process
- **Readiness:** manage the transition through the monitoring of potential risk and resistance areas

Communications

Ensure that the organization is **informed, engaged, and ready to mobilize** by developing a communication plan:

- Create a **two-way exchange of information** between the project team and principal stakeholders
- Send the **right messages to the right audiences at the right time**
- Build in **opportunities to solicit feedback and engage stakeholders** throughout the project
- **Leverage leadership, principal stakeholders, and “change agents” to communicate to impacted groups**, as appropriate, to engage leadership in the change, and to have employees hear messages from their leaders

Organizational Design & Transformation

Understand what the impacts to people, processes, and technology will be, when and how they will take place by conducting an:

- **Impact assessment:** discuss how jobs will be affected by new business processes and systems
- **Role-to-position mapping:** identify process and system activities for each end user in the future state model and map users to different process roles
- **Transition strategy:** develop a plan which details activities and communications to help employees understand process changes and implications on their day-to-day activities
- **Job transition materials:** create the guides, presentations, and quick reference cards that explain what employees will need to start, stop, and continue doing to prepare for the transition
- **Manager-employee sessions:** engage managers in the rollout of transition materials to their employees to increase effectiveness

Training

Develop a **comprehensive and coordinated training program** to ensure the workforce is ready for the change:

- Develop rich enough content to effectively meet the needs of each impacted stakeholder group
- Establish dynamic delivery models to address the diverse learning needs of each impacted stakeholder group

APPENDIX

Human Resources - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Upgrade Internal HR Technology Systems	<ul style="list-style-type: none"> Identify the proper approach to updating HR technology systems; determine which path to pursue: <ol style="list-style-type: none"> Re-deploy / reconfigure Oracle HR modules Move to the Oracle HR cloud Re-platform to a new non-Oracle system Resize HR staffing levels through attrition as new technology comes online 	↓ <i>Advanced tech capability reduces workload, improves efficiency</i>	↑ <i>Increases productive time, enables forward-looking planning</i>	↔ <i>One-time cost, ongoing savings from efficiency gains</i>			↑ <i>Frees up team time to provide value-added services to org</i>	\$1.13 <i>Assumes 25% reduction of talent management cost</i>	\$4.14 <i>Assumes 50% reduction of HR labor cost</i>
Reconfigure the recruiting process	<ul style="list-style-type: none"> Adopt a proactive approach to succession and vacancy planning across the organization Develop processes and incentives for business owners to leverage B.I. dashboards for resource planning Implement stricter guidelines for hiring process across positions (e.g., stricter salary bands for each position to limit selection of over-qualified candidates at higher-than-budgeted salaries) (<i>See finance rec. to delegate P&L ownership to manager level</i>) Implement practice of validating job requirements on a frequent, consistent basis to ensure proper recruitment for each position Build databases of job competency exams in order to streamline recruiting process 	↓ <i>Effective planning reduces demand on both HR and bus. Leads, improves efficiency, and reduces demand</i>	↑ <i>Improved approach enables higher services, and improves effectiveness of hiring process by reducing recruiting timeline and improving filtering processes</i>	↓ <i>Recruiting cost by position should decrease due to increased efficiency and effectiveness</i>			↑ <i>Recruiting timeline should shorten, filling vacancies more quickly with more appropriate candidates</i>	\$0.12 <i>Assumes 1% reduction of salary, OT, and benefits (excl. pension contributions) expense due to increased adherence to salary bands in hiring process</i>	\$0.62 <i>Assumes 5% reduction of salary, OT, and benefits (excl. pension contributions) expense due to increased adherence to salary bands in hiring process</i>
Create change management team	<ul style="list-style-type: none"> Build a change management team that facilitates the implementation of the recommended opportunities Develop training programs to ensure that business units are prepared for expected changes 	↑ <i>Creating program increases demand</i>	↑ <i>Provides more services to business</i>	↑ <i>Setup cost</i>			↑ <i>Employees will be empowered</i>	(\$0.16) <i>Assumes team of 2 FTE at Median labor rate</i>	(\$0.40) <i>Assumes team of 5 FTE at Median labor rate</i>

Human Resources Taxonomy

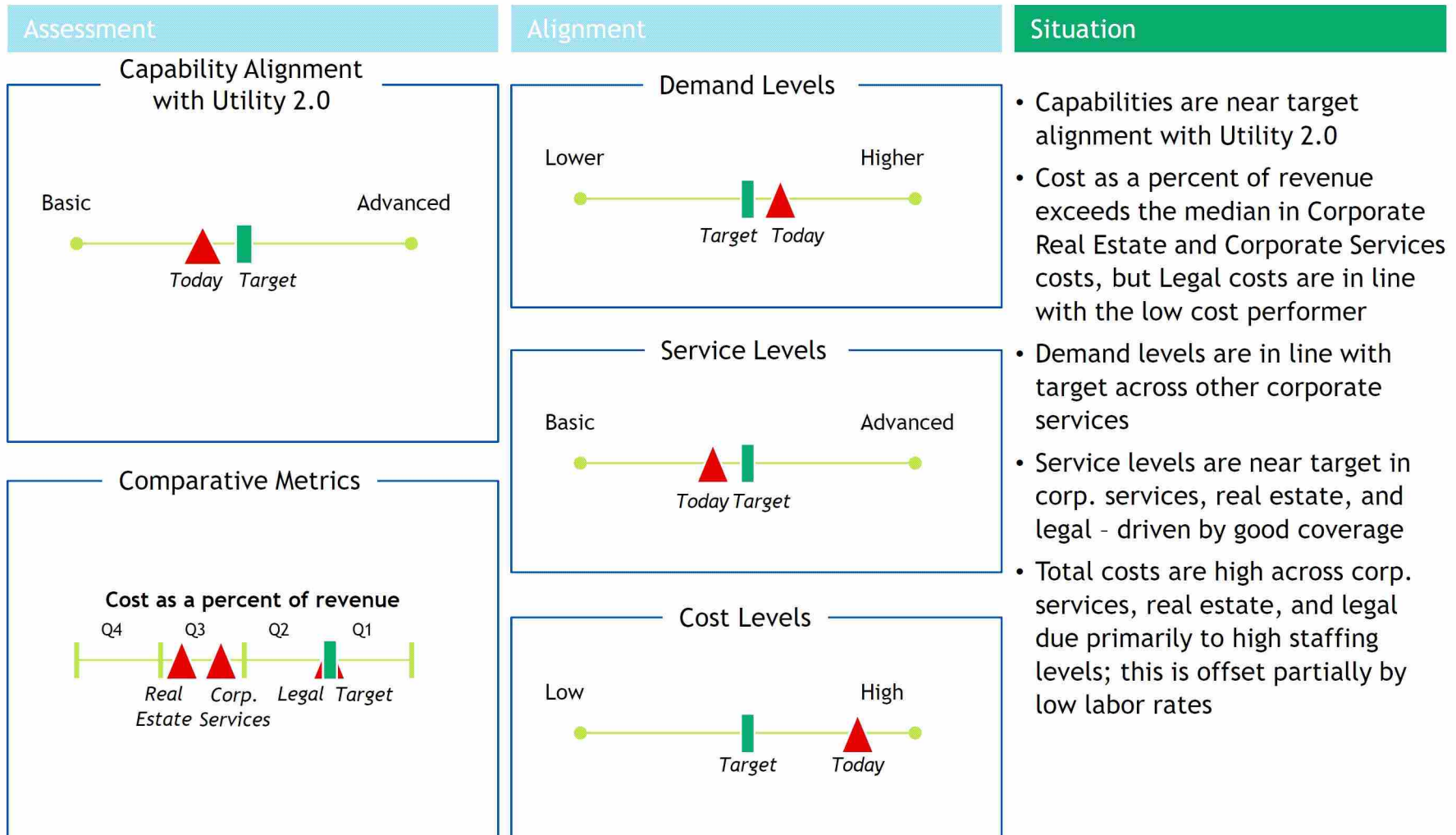
Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
Mgr Payroll Services	Human Resources	Employee Services	Payroll Services	HR Operations
Payroll Practitioner	Human Resources	Employee Services	Payroll Services	HR Operations
Payroll Practitioner Senior	Human Resources	Employee Services	Payroll Services	HR Operations
Dir Emerging Workforce Strategies	Human Resources	Employee Services	Emerging Workforce Strategies	HR Strategy and Program Design
Dir Organizational Performance Improvement	Human Resources	Organization Performance Improvement	Organizational Performance Improvement	HR Strategy and Program Design
HRIS Analyst	Human Resources	Organization Performance Improvement	Organizational Effectiveness	HR Strategy and Program Design
Human Resources Assistant	Human Resources	Emerging Workforce Strategies	Emerging Workforce Strategies	HR Strategy and Program Design
Manager Organizational Effectiveness	Human Resources	Organization Performance Improvement	Organizational Effectiveness	HR Strategy and Program Design
Mgr Emerging Workforce Strategies	Human Resources	Employee Services	Emerging Workforce Strategies	HR Strategy and Program Design
Performance Management Coordinator	Human Resources	Organization Performance Improvement	Organizational Effectiveness	HR Strategy and Program Design
Workforce Analyst	Human Resources	Organization Performance Improvement	Organizational Effectiveness	HR Strategy and Program Design
Dir Employee and Leadership Development	Human Resources	Employee Leadership & Development	Employee and Leadership Development	Talent Management
Human Resources Consultant II	Human Resources	Organization Performance Improvement	Safety and Health Services	Talent Management
Industrial Analyst	Human Resources	Employee Services	Recruitment Services	Talent Management
Leadership Development Solutions Specialist	Human Resources	Employee Leadership & Development	Employee and Leadership Development	Talent Management
Learning & Development Technology Specialist	Human Resources	Employee Leadership & Development	Employee and Leadership Development	Talent Management
Mgr Professional Employees Development Programs	Human Resources	Professional Employee Development	Professional Employee Development	Talent Management
Mgr Safety & Health Services	Human Resources	Organization Performance Improvement	Safety and Health Services	Talent Management
Mgr Talent Acquisition Services	Human Resources	Employee Services	Recruitment Services	Talent Management
Mgr Technical Utility Training Services	Human Resources	Organization Performance Improvement	Technical Utility Training Services	Talent Management
Office Support Associate	Human Resources	Employee Leadership & Development	Employee and Leadership Development	Talent Management
Office Support Associate	Human Resources	Organization Performance Improvement	Technical Utility Training Services	Talent Management
Safety & Health Process Coordinator	Human Resources	Organization Performance Improvement	Safety and Health Services	Talent Management
Safety & Health Specialist	Human Resources	Organization Performance Improvement	Safety and Health Services	Talent Management

Human Resources Taxonomy

Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
Talent Acquisition Coordinator	Human Resources	Employee Services	Recruitment Services	Talent Management
Talent Acquisition Senior Specialist	Human Resources	Employee Services	Recruitment Services	Talent Management
Talent Acquisition Specialist	Human Resources	Employee Services	Recruitment Services	Talent Management
Technical Development Spec	Human Resources	Organization Performance Improvement	Technical Utility Training Services	Talent Management
Benefits Analyst	Human Resources	Employee Services	Employee Benefit Services	Total Rewards
Benefits Associate I	Human Resources	Employee Services	Employee Benefit Services	Total Rewards
Compensation Associate	Human Resources	Employee Services	Employee Services	Total Rewards
Compensation Specialist	Human Resources	Employee Services	Employee Services	Total Rewards
Dir Employee Services	Human Resources	Employee Services	Employee Services	Total Rewards
Human Resources Assistant	Human Resources	Employee Services	Employee Services	Total Rewards
Human Resources Business Partner	Human Resources	Human Resources	Human Resources	Total Rewards
Labor Relations Specialist	Human Resources	Labor Relations	Labor Relations	Total Rewards
Mgr Labor Relations	Human Resources	Labor Relations	Labor Relations	Total Rewards
Retirement Plans Specialist	Human Resources	Employee Services	Employee Benefit Services	Total Rewards

Other Corporate Resources

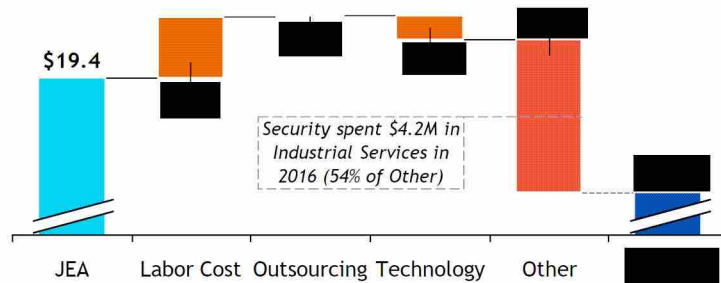
Other Corporate Services¹



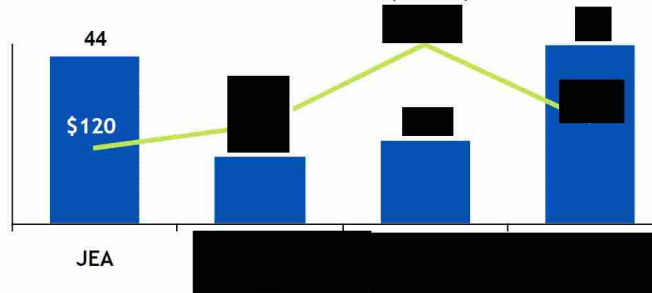
1. Corp. Services includes chief executive office, public affairs (including environmental compliance, programs, permitting, and services), lab services and incident response, security and shared services; Corp. Real Estate includes utility locate services and real estate services; Legal includes compliance and procurement records
Source: Deloitte Global Benchmarking Center and JEA data

Other Corporate Services

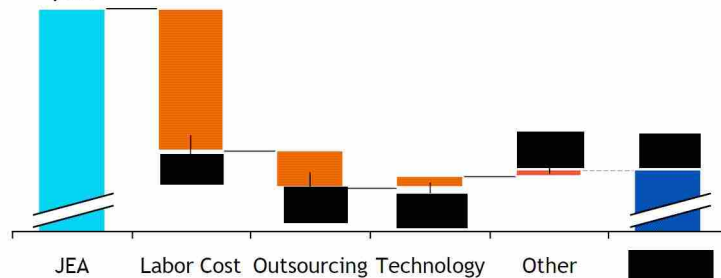
Corporate Services: Cost gap normalized to JEA revenue (\$M)²



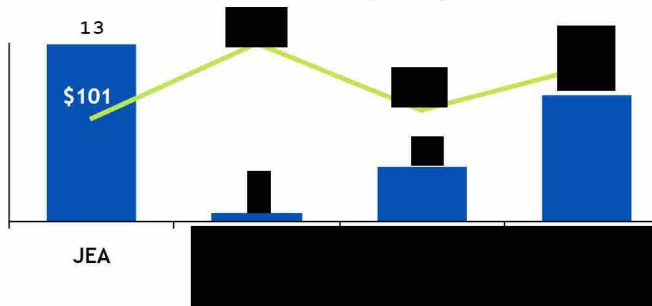
Corporate Services: Suggested staff per \$1B in revenue and Labor Rate (\$000s)



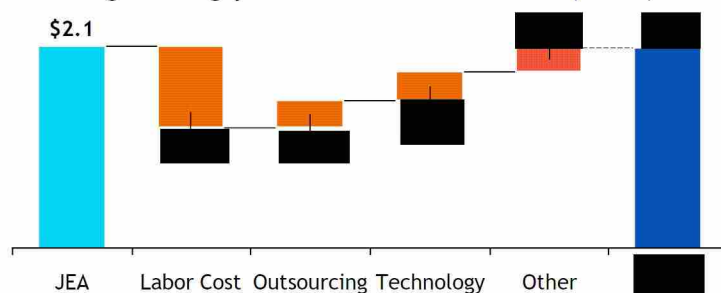
Corp. Real Estate: Cost gap normalized to JEA revenue (\$M)²



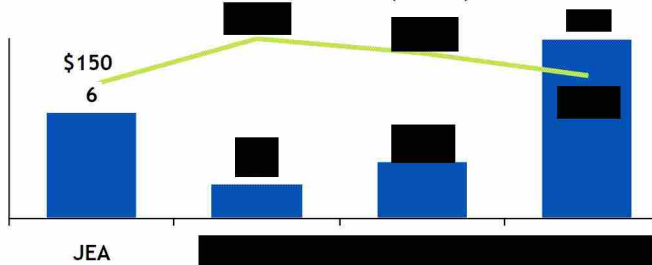
Corp. Real Estate: Suggested staff per \$1B in revenue and Labor Rate (\$000s)



Legal: Cost gap normalized to JEA revenue (USD M)²



Legal: Suggested staff per \$1B in revenue and Labor Rate (\$000s)



Key Findings & Insights

Corporate Services¹

- Cost gap driven by high technology and other, which are offset by low labor and outsourcing
- Labor costs are below [redacted] despite a staff size twice the value of the median due to depressed labor rate (42% of median)

Corporate Real Estate¹

- High labor and outsourcing costs account for gap of \$1.8M, but are partially offset by technology and other costs
- Staff size is 3x the median, causing high labor cost despite relatively low labor rates

Legal¹

- Labor costs are high, but are entirely offset by outsourcing, technology and other costs
- Staff size is 3x the LCP, whereas labor rates are 71% of the [redacted]

- Corp. Services includes chief executive office, public affairs (including environmental compliance, programs, permitting, and services), lab services and incident response, security and shared services; Corp. Real Estate includes utility locate services and real estate services; Legal includes compliance and procurement records
- Benchmark categories are normalized to JEA revenue by applying the percentage of revenue for the performer (low cost, median, and high cost) to the JEA 2016 revenue of \$1.8B to illustrate comparisons
- Low cost performer is based on the peer set in the first quartile of total human resources cost as a % of revenue, high cost performer is the 3rd quartile of cost as a % of revenue

Note: Technology cost is calculated as allocation of IT costs proportional to HR's share of overall O&M spend; Other is calculated as the remainder of function cost after labor and outsourcing and comprises supplies, materials, and other services & charges (excluding professional services)

Source: Deloitte Global Benchmarking Center and JEA data



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Other Corporate Services - Opportunity Summary

Opportunity	Cost Savings Potential	
	Target (\$M)	Reach (\$M)
Outsource common services (i.e., security, real estate)	\$0.97	\$1.94
Automate Lab services and incident response and Utility location services	\$0.97	\$2.92
Total Savings	\$1.94	\$4.86

APPENDIX

Other Corporate Services - Opportunity Summary

Opportunity	Description	Alignment Impact			Stakeholder Impact			Cost Savings Potential	
		Demand	Service	Cost	City Gov.	Customers	Employees	Target (\$M)	Reach (\$M)
Outsource common services (i.e., security, real estate)	<ul style="list-style-type: none"> Outsource common corporate services for which JEA does not possess a core competency such as Security, which accounted for \$5.1M of O&M spend in 2016, \$4.2 of which went to industrial services Outsource real estate portfolio management to a third party who can do so more cost-effectively and efficiently 	↓ <i>Reduces workload via outsourcing</i>	↑ <i>SLA's ensure service levels maintained or improved</i>	↓ <i>Lower cost per property</i>			↑ <i>Frees up team time</i>	\$0.97 <i>Assumes 5% savings of cost</i>	\$1.94 <i>Assumes 10% savings of cost</i>
Automate Lab services and incident response and Utility location services	<ul style="list-style-type: none"> Automate elements of corporate services in order to minimize human error such as <ul style="list-style-type: none"> Lab services and incident response (\$3.2M in 2016) Utility location services (\$2.1M) Right-size the staffing levels through attrition as new technologies are implemented and incrementally free up bandwidth 	↓ <i>Reduced demand due to outsourcing</i>	↑ <i>Improves management of properties</i>	↓ <i>Lower cost per property</i>			↑ <i>Frees up finance team time</i>	\$0.97 <i>Assumes 5% savings of cost</i>	\$2.92 <i>Assumes 15% savings of cost</i>
Total Savings								\$1.94	\$4.86

Other Corporate Services Taxonomy

Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
Mgr Real Estate Services	Financial and Logistical Services	Shared Services	Real Estate Services	Corporate Real Estate
Real Estate Coordinator	Financial and Logistical Services	Shared Services	Real Estate Services	Corporate Real Estate
Staff Technician	Financial and Logistical Services	Shared Services	Real Estate Services	Corporate Real Estate
Associate Mgr, Utility Locate Services	Financial and Logistical Services	Shared Services	Utility Locate Services	Corporate Real Estate
Mgr Utility Locate Services	Financial and Logistical Services	Shared Services	Utility Locate Services	Corporate Real Estate
Utility Locator	Financial and Logistical Services	Shared Services	Utility Locate Services	Corporate Real Estate
Utility Locator Senior	Financial and Logistical Services	Shared Services	Utility Locate Services	Corporate Real Estate
Security & Fire Systems Technician	Compliance	Security	Security	Corporate Services
Security Compliance Specialist	Compliance	Security	Security	Corporate Services
Dir Security Fire and Corporate Records Compliance	Compliance	Security	Security	Corporate Services
Security & Investigative Support Specialist	Compliance	Security	Security	Corporate Services
Appointed Specialist	Compliance	Security	Security	Corporate Services
Managing Director CEO	CxO	Chief Executive Officer	Managing Director/CEO	Corporate Services
Executive Assistant	CxO	Executive Assistant	Managing Director/CEO	Corporate Services
Executive Assistant to CEO	CxO	Executive Assistant	Managing Director/CEO	Corporate Services
Chief Public Affairs Officer	CxO	Public Affairs	Public Affairs	Corporate Services
Dir Shared Services	Financial and Logistical Services	Shared Services	Shared Services	Corporate Services
Laboratory Scientist Senior	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Laboratory Technician	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Mgr Fuels Laboratory	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Environmental Scientist	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Quality Assurance LIMS Officer	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Laboratory Scientist	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Laboratory Section Administrator	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Laboratory Analyst	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Mgr Quality Assurance & Environmental Compliance Systems	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Dir Air & Laboratory Permitting & Compliance	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Mgr Sampling & Support Services	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Environmental Scientist Senior	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Water Quality Technician Senior	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services

Other Corporate Services Taxonomy

Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
Office Support Associate	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Mgr Laboratory Section Analytical	Public Affairs	Air & Lab Services	Air & Lab Services	Corporate Services
Environmental Scientist Senior	Public Affairs	Air & Lab Services	Environmental Air Compliance	Corporate Services
Environmental Engineer	Public Affairs	Air & Lab Services	Environmental Air Compliance	Corporate Services
Staff Engineer	Public Affairs	Air & Lab Services	Environmental Air Compliance	Corporate Services
Mgr Water Policy, Permitting & Compliance	Public Affairs	Permitting and Regulatory Conformance	Permitting & Regulatory Conformance	Corporate Services
Environmental Engineer	Public Affairs	Permitting and Regulatory Conformance	Permitting & Regulatory Conformance	Corporate Services
Environmental Scientist Senior	Public Affairs	Permitting and Regulatory Conformance	Permitting & Regulatory Conformance	Corporate Services
Dir Permitting & Regulatory Conformance	Public Affairs	Permitting and Regulatory Conformance	Permitting & Regulatory Conformance	Corporate Services
Media Relations Coordinator	Public Affairs	Public Affairs	Public Affairs	Corporate Services
Government Relations Coordinator	Public Affairs	Public Affairs	Public Affairs	Corporate Services
Government Relations Specialist	Public Affairs	Public Affairs	Public Affairs	Corporate Services
Mgr External Affairs	Public Affairs	Public Affairs	Public Affairs	Corporate Services
Dir Government Affairs	Public Affairs	Public Affairs	Public Affairs	Corporate Services
Office Support Associate	Public Affairs	Permitting and Regulatory Conformance	Regulatory Program Conformance	Corporate Services
Environmental Scientist Senior	Public Affairs	Permitting and Regulatory Conformance	Regulatory Program Conformance	Corporate Services
Pollution Prevention Programs Coordinator	Public Affairs	Permitting and Regulatory Conformance	Regulatory Program Conformance	Corporate Services
Environmental Scientist	Public Affairs	Permitting and Regulatory Conformance	Regulatory Program Conformance	Corporate Services
Mgr Pollution Prevention Programs	Public Affairs	Permitting and Regulatory Conformance	Regulatory Program Conformance	Corporate Services
Administrative Support Asst JSA	Public Affairs	Permitting and Regulatory Conformance	Regulatory Program Conformance	Corporate Services
Utilities Pipefitter Crewleader	Public Affairs	Permitting and Regulatory Conformance	Regulatory Program Conformance	Corporate Services
Environmental Scientist	Public Affairs	Response & Environmental Programs	Response & Environmental Programs	Corporate Services
Environmental Scientist Senior	Public Affairs	Response & Environmental Programs	Response & Environmental Programs	Corporate Services
Mgr Environmental Incident Response	Public Affairs	Response & Environmental Programs	Response & Environmental Programs	Corporate Services
Dir Response & Environmental Programs	Public Affairs	Response & Environmental Programs	Response & Environmental Programs	Corporate Services

Other Corporate Services Taxonomy

Job Title	Business Unit / Division	Function	Sub Function / Department	[ADDED COLUMN] Process Category - Level 1
CIP Compliance Program Manager	Compliance	CIP Compliance	CIP Compliance	Legal
Compliance Analyst	Compliance	CIP Compliance	CIP Compliance	Legal
Compliance Specialist	Compliance	CIP Compliance	CIP Compliance	Legal
Dir CIP Compliance	Compliance	CIP Compliance	CIP Compliance	Legal
Mgr Corporate Records Compliance	Compliance	Security	Corporate Records Retention	Legal
Public Records Compliance Specialist	Compliance	Security	Corporate Records Retention	Legal
Dir Electric Compliance	Compliance	Electric Compliance	Electric Compliance	Legal
Compliance Specialist	Compliance	Electric Compliance	Electric Compliance	Legal
Compliance Analyst	Compliance	Electric Compliance	Electric Compliance	Legal
Chief Compliance Officer	CxO	Compliance	Compliance	Legal

Process Automation Areas to Explore - Legal, Contracts, and Regulatory

