
From: Coarsey, John B. - Director, Electric T & D Planning <CoarJB@jea.com>
Sent: Monday, December 2, 2019 8:08 AM
To: McInall, Steven G. - VP & Chief Energy & Water Planning; Pope, Jordan A - Dir Economic Development and Real Estate; Zammataro, Robert J. (Rob) - Dir W/WW Planning & Development
Subject: RE: McKinsey Strategic Plan - Complete Doc - REVIEW
Attachments: 1126 2030 Strategy Document_vF.pdf

This entire PDF, having been for the most part crafted with no input from my team seems to be the work of inexperienced consultants and financial people. This entire report seems to be more of a wish list put together by people who have little or no understanding of the critical technical hurdles most of this involves. The logic or lack thereof of comparing of JEA with other utilities that are completely different and then drawing comparisons that by their nature are not completely accurate seems to be a recurring theme in this report. Comments below. I am forwarding to Matt and Russ to see if I am missing something.

John

John B. Coarsey, P.E.
Director, Energy Planning
Direct: (904) 665-6739
Fax: (904) 665-7263

-----Original Message-----

From: McInall, Steven G. - VP & Chief Energy & Water Planning <mcinsg@jea.com>
Sent: Friday, November 29, 2019 6:24 PM
To: Coarsey, John B. - Director, Electric T & D Planning <CoarJB@jea.com>; Pope, Jordan A - Dir Economic Development and Real Estate <popeja@jea.com>; Zammataro, Robert J. (Rob) - Dir W/WW Planning & Development <zammrj2@jea.com>
Subject: FW: McKinsey Strategic Plan - Complete Doc - REVIEW

Fyi. Hope you had a great Holiday

From: Eads, Shawn W. - VP & Chief Information Officer
Sent: Wednesday, November 27, 2019 4:38 PM
To: (Mgmt - JEA Senior Leadership Team (SLT)
Cc: Aaron Bielenberg; Andrew Grass; Anton Derkach
Subject: McKinsey Strategic Plan - Complete Doc - REVIEW

SLT,

McKinsey has finished their alignment of the 10 year strategic plan and have added all the details they collected and worked with you on for mid-level implementation details. It is now time for us to give these documents a deep scrubbing.

Attached is the complete document. You are more than welcome to review the document in its entirety, but we also have provided a guide below for the pages we definitely need you to dig into and make sure you understand them and can take them forward as we move into the next phases of detailed implementation planning and execution.

McKinsey will be onsite December 2-13 to work with you on any questions you have and any corrections you feel are needed. Post December 13, McKinsey will begin their Light Touch phase through March, which means they will not be onsite daily and will be available through request.

It is our time to take the lead on our plan. Please let me know where I can help you!

Name

Role

Pages

Herschel Vinyard

Chief Administrative Officer

2-43

Lynne Rhode

Chief Legal Counsel

2-43, 77-100, 140-147

Kerri Stewart

Chief Customer Officer

2-43, 55-57, 125-128

Jon Kendrick

CHRO

2-43, 58, 129, 150-155

Steve McInall

Energy and Water Planning

2-43, No ready way to validate numerous statements made in this portion of the work.

62-75, This part of the work compares us and makes recommendations based on other utilities such as Con-Ed. Electric Planning had virtually zero input into this. As such there are several serious flaws. One such flaw calls for conversion of 4 kV. This has been done. What is left is in politically sensitive areas that are heavily treed. The conversion OH to UG is laughable. At the end of the day most of what is suggested can be done but will likely be a t a much higher cost.

77-100, No comments

135-139, They are words but as they say the devil is in the details.

140-147, Same as above

John McCarthy

Chief Supply Chain Officer

2-43, 58-59, 132-134

Shawn Eads

CIO

2-43, 58, 77-100, 130-131, 140-147

Ted Hobson

Chief Compliance Officer

2-43

Paul Stienbrecher

Environmental Services

2-43, 69-70, 138-139

Caren Anders

Energy

2-43, 47-51, 62-68, 71-75, 77-100, 114-121, 135-137, 140-147

Sherry Hall

Chief Government Affairs Officer

2-43, 77-100, 140-147

Deryle Calhoun

Water & Wastewater Systems

2-43, 52-54, 69-70, 121-124, 138-139

Shawn W Eads

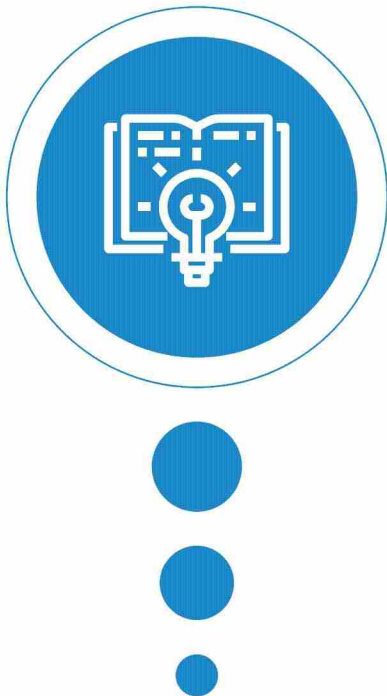
Chief Disruption Officer



2030 Strategy

Table of Contents

Detail to follow



About this document

An overview of the approach and guidelines to JEA's strategy development

Strategic aspirations for JEA

2030 Vision for JEA across strategic pillars (customer, environmental, community, financial), with metrics outlined for each pillar; summary of how strategic initiatives will achieve financial and non-financial metrics

Operational improvements

Redesign of JEA's operating practices to achieve top-quartile performance as measured against JEA's peer set

Strategic capital investments

Investments in traditional utility infrastructure to deliver new outcomes and benefits to our customers (e.g. customer resiliency, grid flexibility and customer choice, clean and sustainable, etc)

Core growth opportunities

Investments in new growth businesses core to the utility model: transport electrification, energy efficiency, distributed generation

Additional growth opportunities

Additional growth initiatives that position JEA as a growth platform that are currently not included in the financial projections

Next steps

Next steps to build capabilities and execute strategy

Appendix 1: Initiative charters and supporting analyses

Further detail on the strategic and financial objectives for each new initiative

Appendix 2: Next steps on implementation

Critical next steps to drive implementation of the strategic plan

Appendix 3: Organizational health initiatives

Actions JEA will undertake to improve its organizational health

JEA has taken a structured approach to building its 2030 Strategy (the “2030 Strategy” or “Management Case”)

Internal stakeholder alignment (Board, SLT, appointed employees, Union); external stakeholder consultation and feedback



Phase 1 Apr-Dec 2018

Transition, stabilize JEA, develop guiding principles, dashboard and financial tools and hire CEO

Phase 2 January-June 2019

Develop baseline financial projections

Assess current state of JEA health and culture

Develop scenarios (including “traditional response” within JEA constraints)

Phase 3 July -October 2019

Develop unconstrained 2030 Strategy and Management Case to address challenges in baseline

Set metrics for performance and health

Develop strategic portfolio of initiatives

Phase 4 Oct-Dec 2019

Finalize executable plan with no regrets near-term actions and options for long-term path

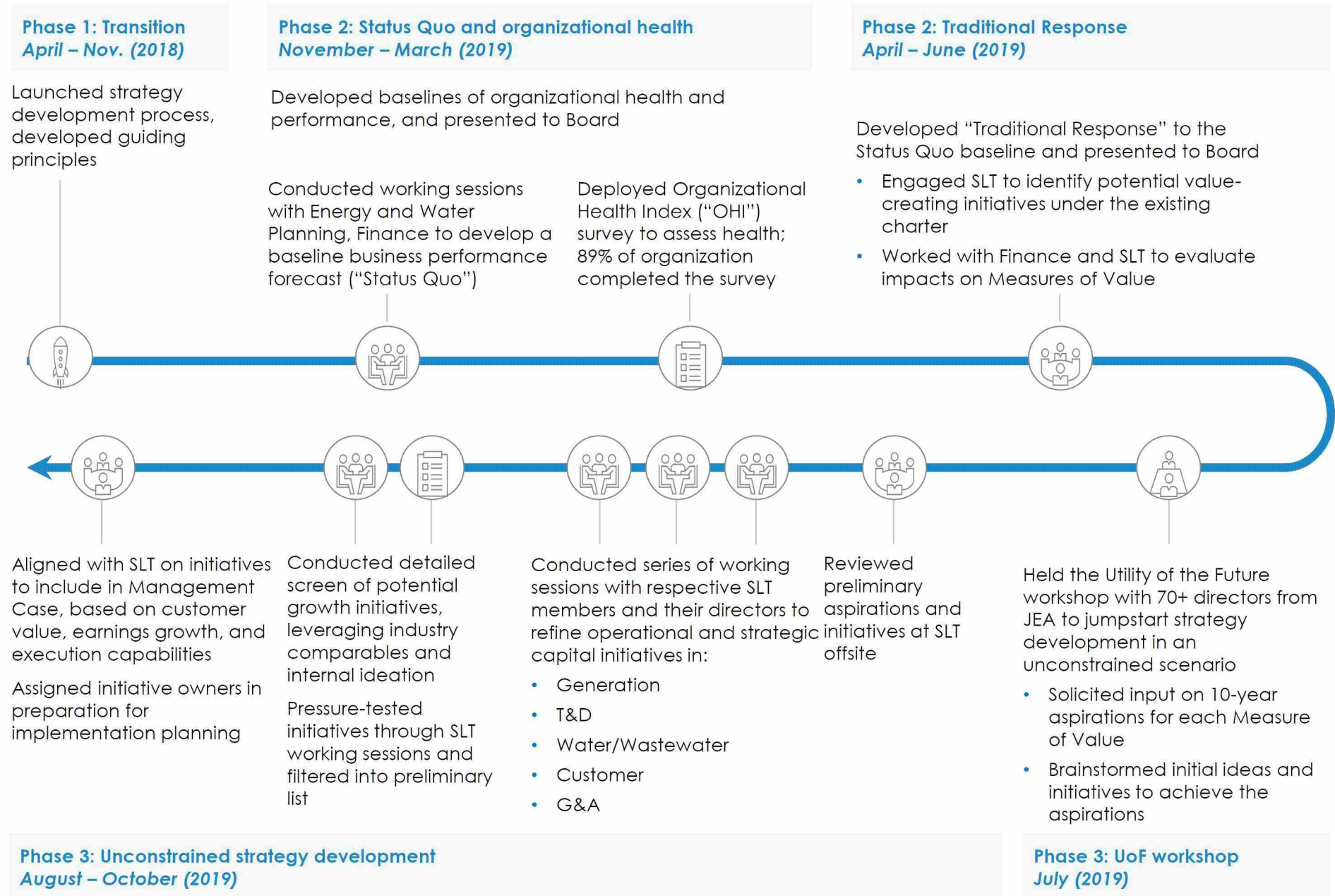
Phase 5 Oct 2019-mid-2020

Align JEA Stakeholders & Charter with long-term plan to maximize value:
1) Customer;
2) Financial;
3) Environmental; and
4) Community Impact

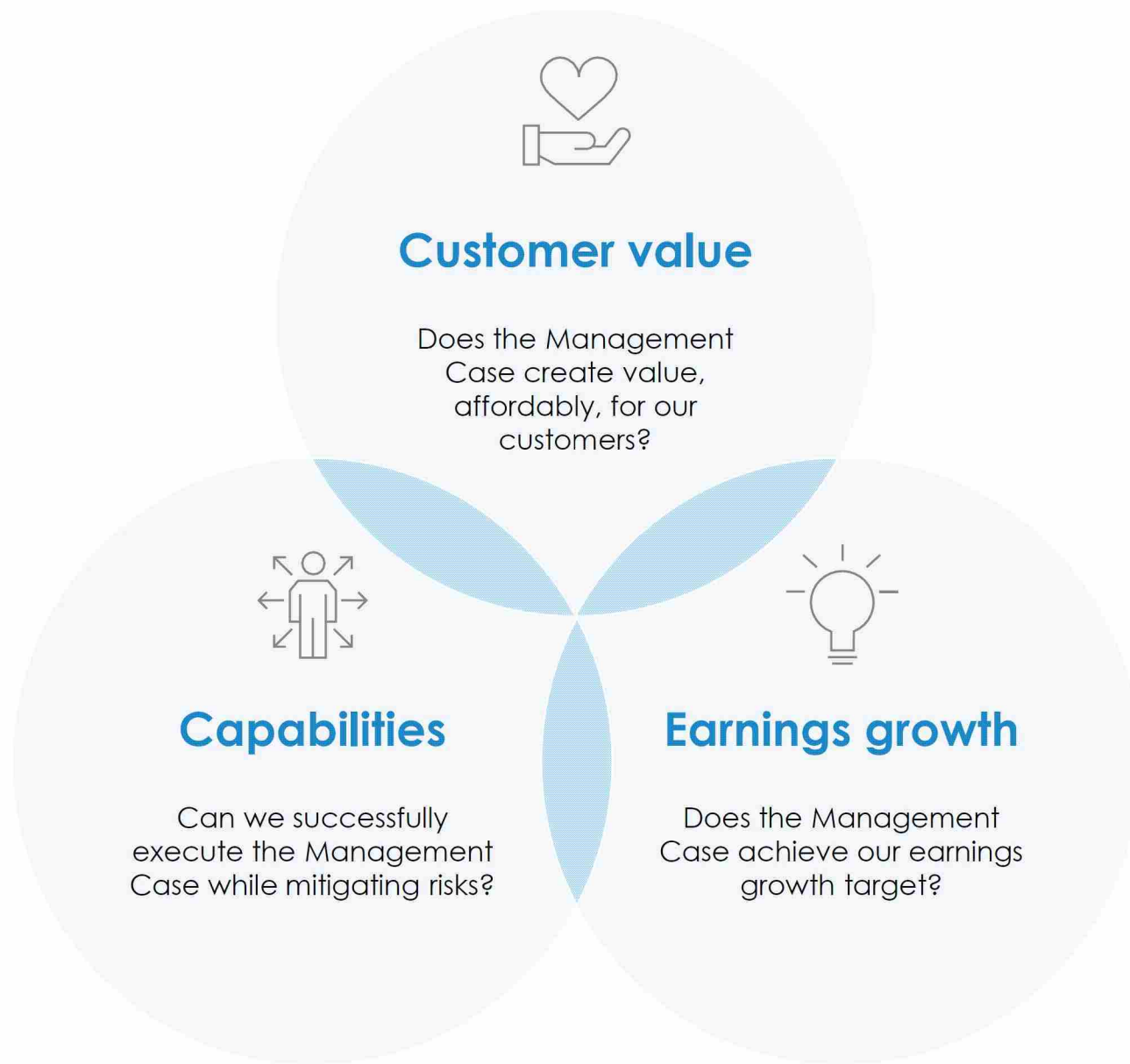
Launch no-regrets strategic initiatives

Note: this document makes references to the “2030 Strategy” and the “Management Case.” With the ITN process ongoing, the “Management Case” term is important for consistency with the CIP. At the completion of the ITN process, however, all references to the “Management Case,” “Respondent Financial Model,” and other ITN or transaction-related terms should be scrubbed. Use of these materials for other presentations should take into account the audience and terminology should be adjusted accordingly.

Significant stakeholder engagement throughout the 2030 Strategy development process



The Management Case balances customer value, earnings growth, and capabilities



Guidelines of the 2030 Strategy

Work JEA has undertaken to date to build the Strategy

Transition

- Develop guiding principles and strategic framework, corporate dashboard, and financial tools to support strategy assessment

Establish baseline

- Assess current “business as usual” financial projection

Strategy development

- Design strategies to meet future targets and challenges
 - “Traditional” response (within existing charter)
 - 2030 Strategy, “Non-traditional” unconstrained strategy



Core guidelines of the Strategy

• Build from the baseline

- Assess the strategy relative to the baseline as outlined in the May Board package

• Apply a non-governmental lens

- Assume a regulated rate base and corresponding revenue requirement

• Take an unconstrained view

- Assume JEA can alleviate the constraints associated with JEA’s existing charter

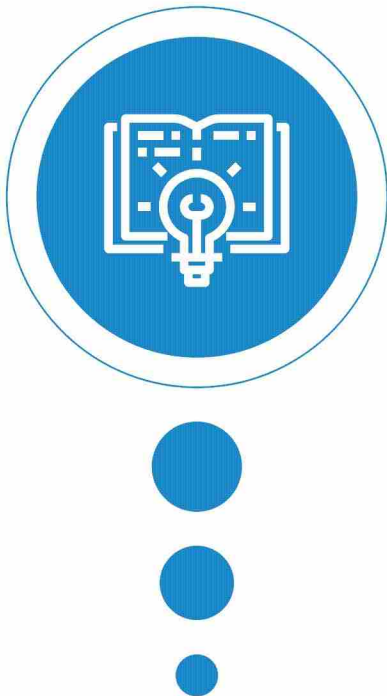
• Contemplate strategic partners

- Assume JEA can access the capital and capabilities required to execute the strategy through partnerships

As part of its 2030 Strategy, JEA will implement the initiatives that JEA’s Senior Leadership Team (“SLT”) incorporated into their 2030 Strategy base case projections (the “2030 Strategy” or “Management Case”)

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The “balanced” JEA of 2030 – a scorecard

DRAFT – analysis must be refreshed at conclusion of ITN process. Note that these figures reflect the “rate-stability” case in the transaction model

	Management Case ¹	Baseline financial projections
 Earnings in 2030	~\$250M	~\$125M
 Cumulative capital invested <i>TOTAL/ENERGY/WATER</i>	\$7.4B/\$4.4B/\$3.0B	\$4.7B/\$2.5B/\$2.2B
 2030 average monthly energy electric bill / % CAGR	\$156 / 1.8%	\$145 / 1.1%
 2030 average monthly water bill / % CAGR	\$94 / 3.7%	\$91 / 3.4%
 Earnings split <i>ENERGY/WATER</i>	30% / 70%	-9% / 109%
 FFO/Total Debt	25%	26%
 MW of utility-scale renewable generation ²	~815 MW	0 MW

To execute the growth-oriented scenario, JEA will require ~\$[X]B of capital beyond the baseline financial projections

¹ 2030 Strategy

² Assumes replacement of NS 1 + 2 + 3 with renewables portfolio

SOURCE: JEA financials; team analysis

The 2030 Strategy sets new aspirations across each measure of value that go well beyond today's goals

Measure of Value 2030 Aspirations



Environment

- Become a **regional leader in renewable generation**
- **Maintain operational excellence in water and wastewater**, modernizing the system to maintain top quartile performance across the US



Community

- **Invest in the next generation of public infrastructure services** – mobility, resiliency, communications, energy
- **Make JEA a best in class place to work**, fostering innovation, collaboration, and **career development opportunities for JEA employees**



Customer

- **Maintain customer affordability, keeping bill increases below inflation**
- **Transform the customer experience** by applying data, analytics, and digital technology to customer-facing channels

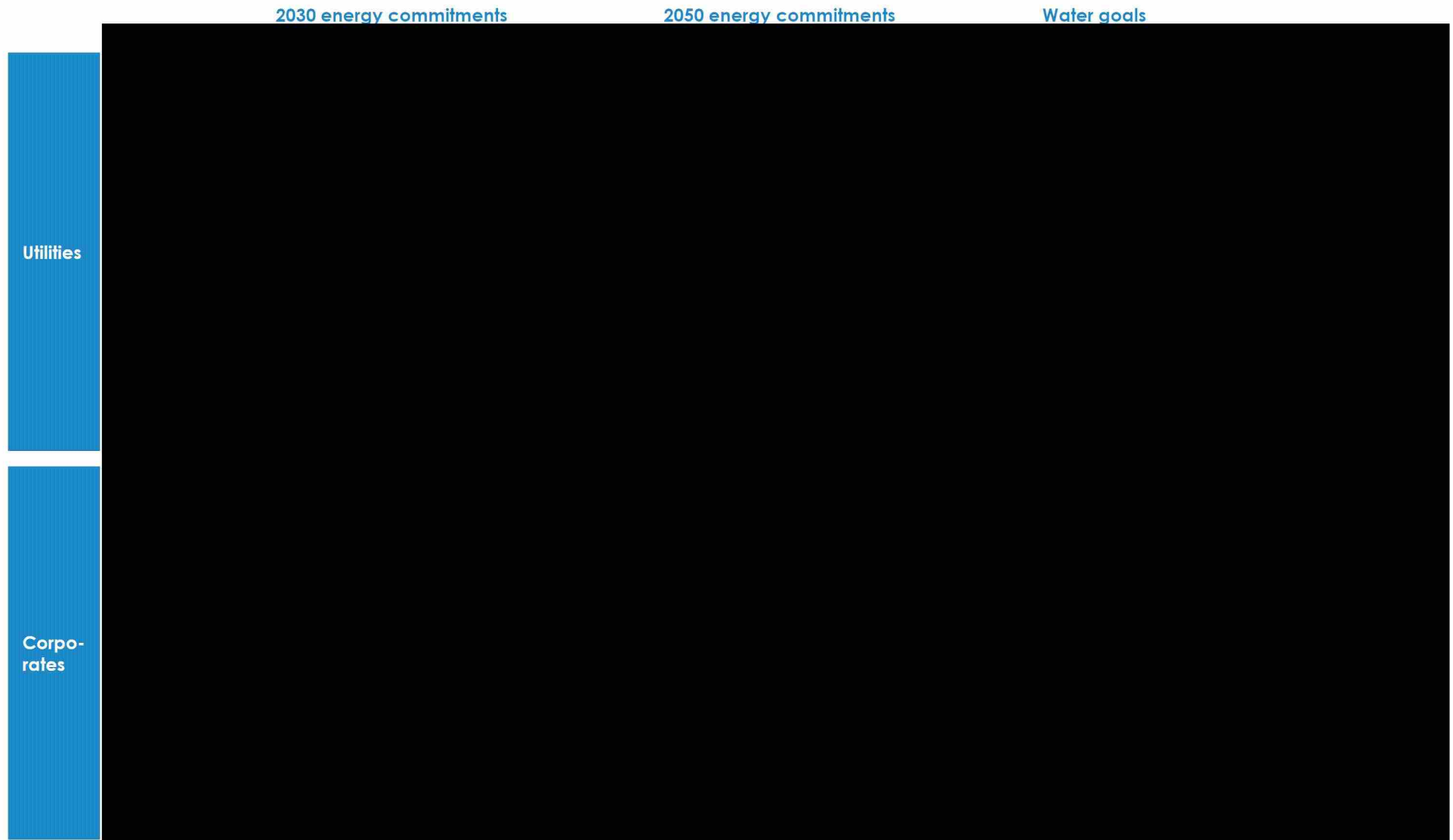


Financial

- **Grow earnings 5-7% year-over-year**
- **Diversify** JEA's revenue sources **beyond traditional water and electric sales**
- **Continue to deliver financial value to the City of Jacksonville**



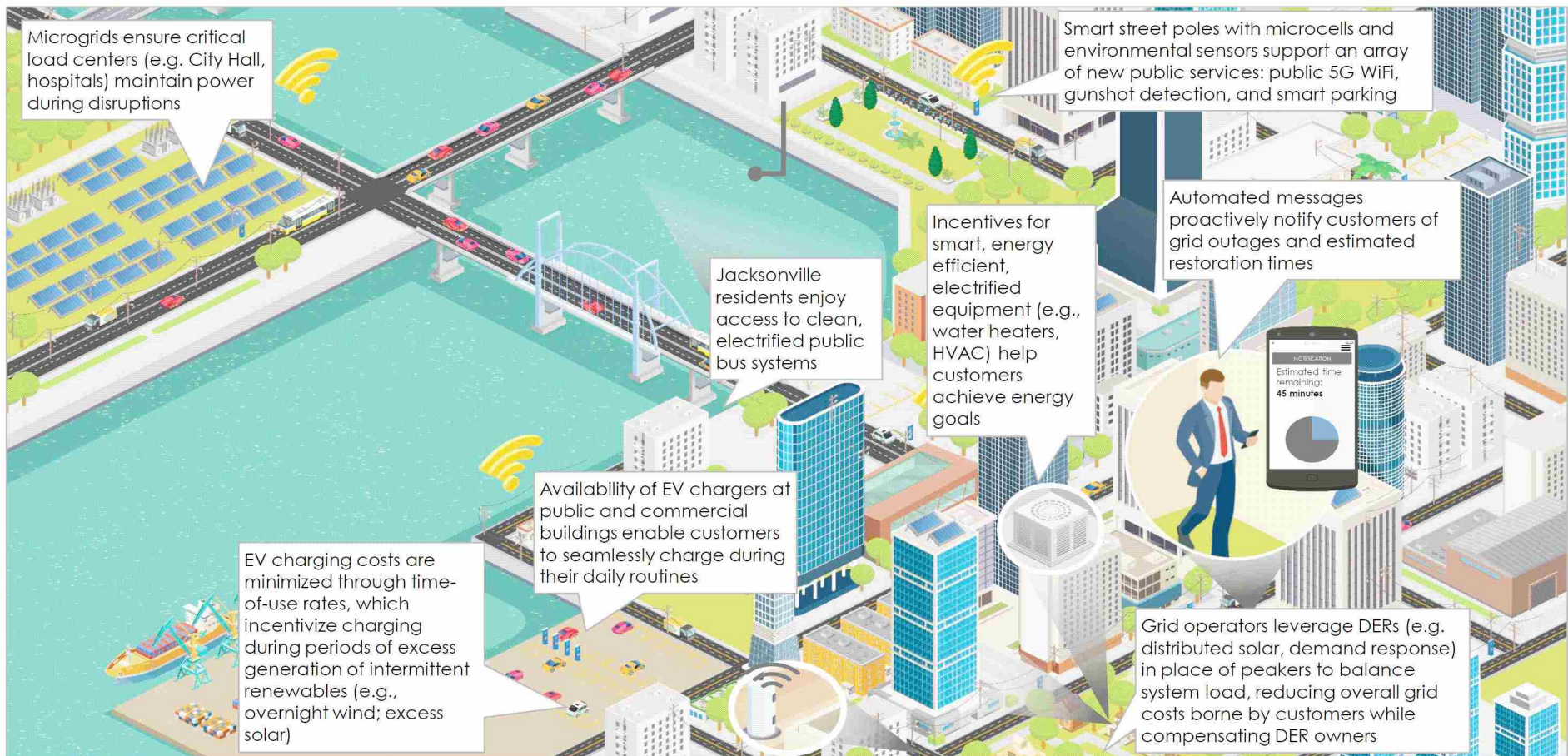
JEA will add renewables and increase its share of reclaimed water to join other utilities, corporates with sustainability goals



1 No specific target date
SOURCE: Press releases



JEA will enable innovative development and improved public services in its community





Bill growth will be outpaced by wage growth, reducing bills as an overall share of wallet

Increased investment in the electric system grows electric bills from an average of \$1.4K in 2017 to \$1.9K in 2030 ...



... resulting in lower overall share of wallet in 2030 by .5 percentage points

Avg. electric bill¹, 2017, 2030 projections

Share of wallet³, electricity spend as share of median income, 2017, 2030 projections

1 EIA Form 861; ABB Energy Velocity 2 US census, household income 2017

2 Assumes median income CAGR of 2.7%, consistent with Duval County CAGR from 2010-2020

3 Share of wallet defined as average annual electricity bill (EIA Form 861) over median household income (census.gov)

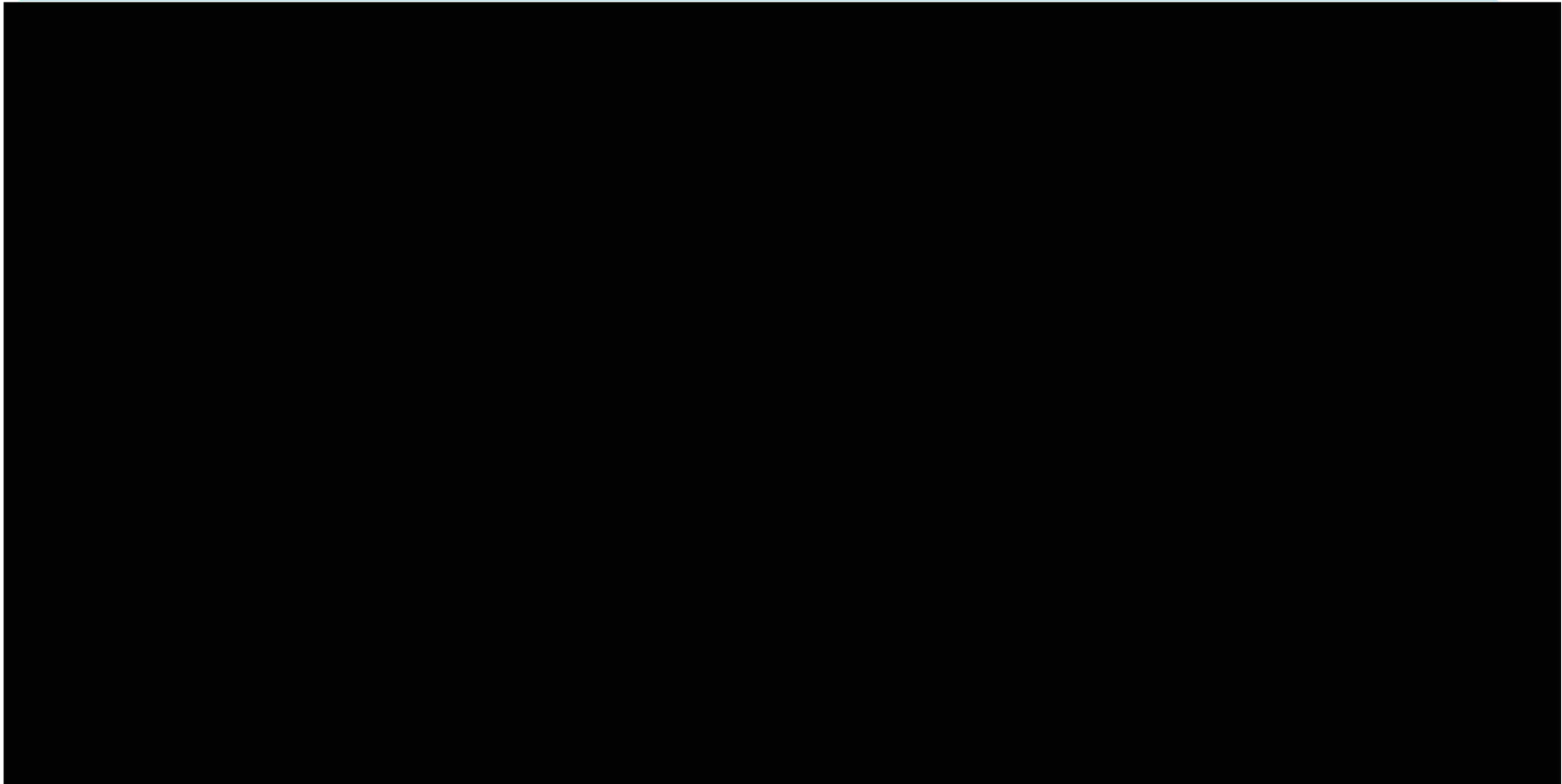
SOURCE : Moody's Analytics, Census.gov, EIA, Bureau of Economic Analysis, company website



Regulated utilities continue to target 5-8% long-term EPS, regardless of business mix

■ EPS target low end □ EPS target high end

Target EPS Growth



SOURCE: Annual reports; Investor presentation

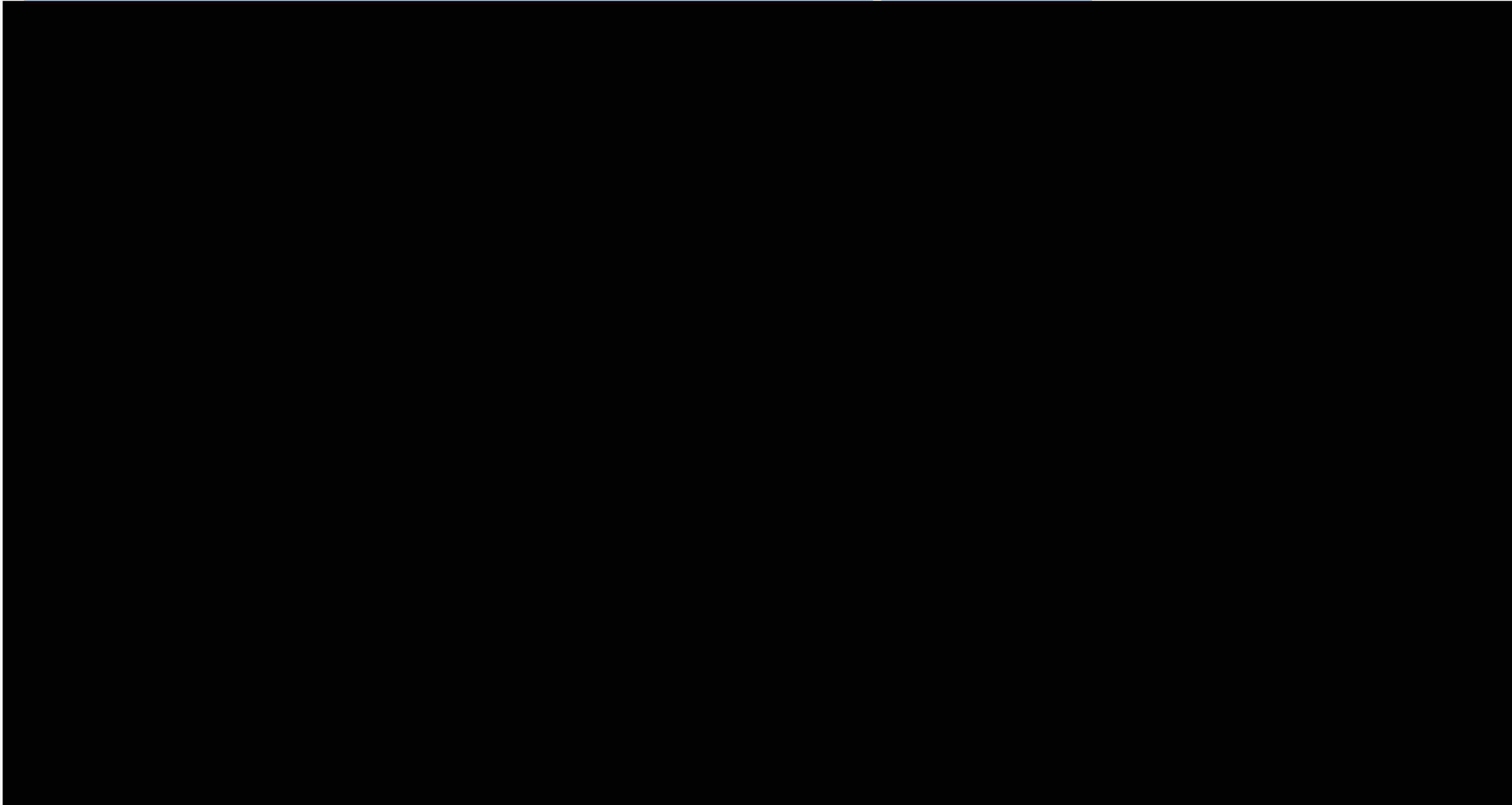
STRATEGIC VISION AND ASPIRATION FOR JEA

Increased earnings will be driven by strategic plans for rate base growth over the next five years

Electric rate base, \$B

2018 2023

Water rate base, \$B



SOURCE: Annual reports, Investor presentations, S&P Global

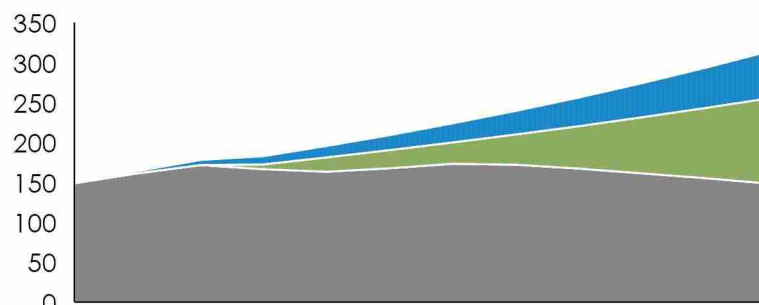


JEA needs to add \$190-305M of earnings across energy, water in 2030 vs. the baseline to deliver 5-7% annual earnings growth

Assumptions

- Pro-forma rate base using historicals, baseline forecasts (rate increases allowed)
- 52.5% / 47.5% equity-to-capital structure
- 10.55% ROE for energy, 10.00% ROE for water
- 5-7% earnings growth using 2018 as a base year

Pro forma Energy net earnings, 2019-2030, \$M

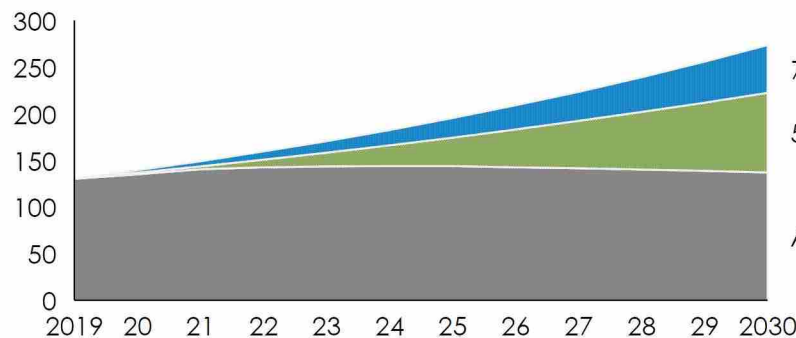


	2030 earnings, \$M	Cumulative earnings, 2020-30, \$M
7% growth		
5% growth	\$295M	\$2,515M
Actuals/SQ	\$235M	\$2,225M
	\$148M	\$1,810

Earnings gap in 2030: **\$105-165M**

Cumulative earnings gap through 2030: **\$415-710M**

Pro forma water earnings before contributions, 2019-2030, \$M



	2030 earnings, \$M	Cumulative earnings, 2020-30, \$M
7% growth		
5% growth	\$274M	\$2,195
Actuals/SQ	\$222M	\$1,940
	\$137M	\$1,545

Earnings gap in 2030: **\$85-140M**

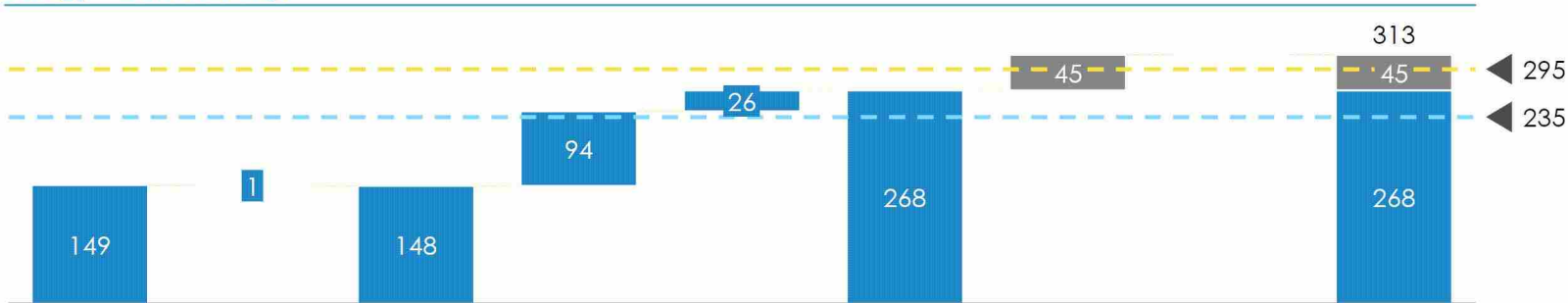
Cumulative earnings gap through 2030: **\$395-650M**



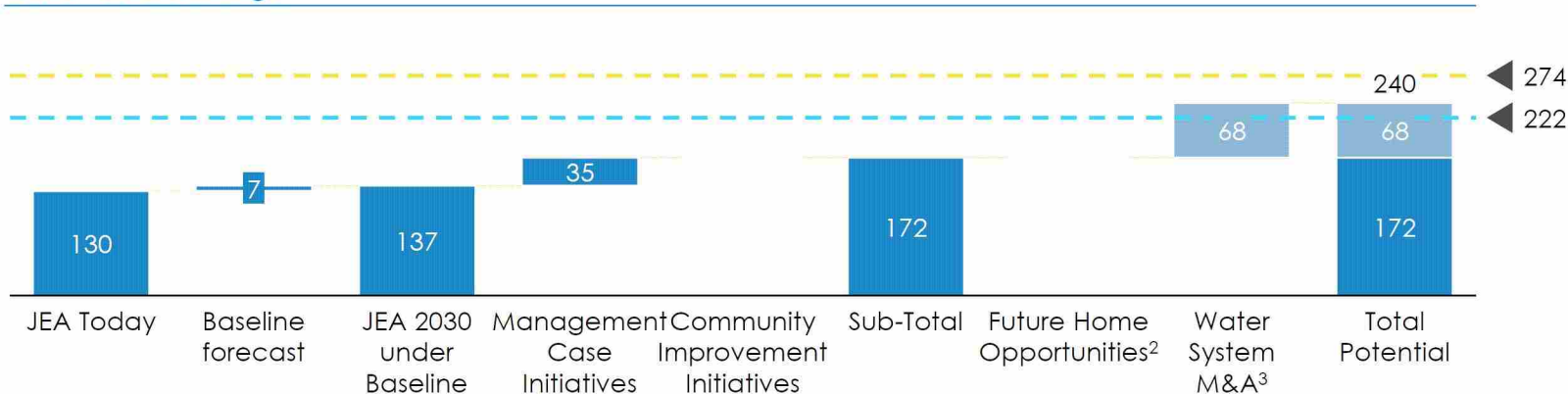
The 2030 Strategy delivers the earnings needed to meet JEA's targets, with upside potential from adjacent growth businesses

--- 5% annual earnings growth --- 7% annual earnings growth ■ M&A ■ Unregulated ■ Regulated

Energy – 2030 earnings¹



Water – 2030 earnings¹



Includes 2 tranches of earnings, from acquisition rate base and from incremental run-rate capex

- JEA will achieve industry earnings targets of 5-7% within its regulated construct
- In addition, JEA will pursue longer-term opportunities to create value through adjacent growth businesses

¹ Assumes perfect rate-making and does not conform to the rate stability case in the Respondent Financial Model

² Estimate of potential earnings under a high case. Other additional growth opportunities (e.g., expansion of dark fiber leasing, SJRPP monetization, District Energy System expansions) not reflected here

³ Assumes acquisition of 5% of Florida water utilities along by 2030

SOURCE: Team analysis

STRATEGIC VISION AND ASPIRATION FOR JEA

At the same time, the 2030 Strategy resolves the \$3.2B cash gap identified in the baseline financial projections

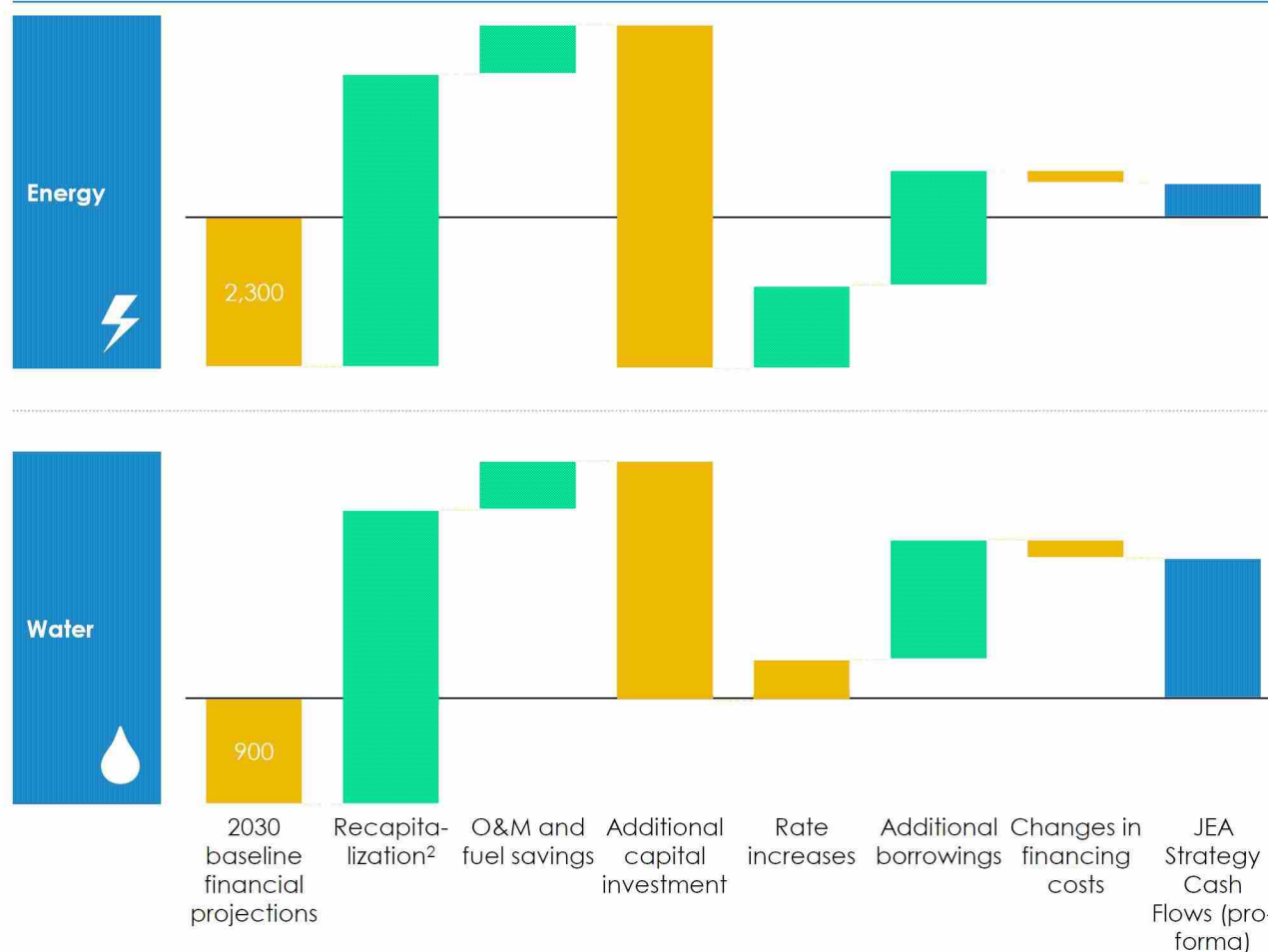
ILLUSTRATIVE

How the strategy impacts JEA's cash

2030 baseline financial projections	JEA's net cash position
Recapitalization	Outside capital supplied by an external partner
O&M and fuel savings	Reduced expenses enabled through operational improvements
Additional capital investment	Incremental capital spend on investments to create value for JEA stakeholders
Rate increases	Additional cash inflows from higher rates
Additional borrowings	Outside capital supplied by lenders
Changes in financing costs³	Net impacts from the change in JEA's capital structure (e.g., dividend payments, incremental interest expense, etc.)



Cumulative cash flows 2019 – 2030¹, \$M



¹ All changes are shown relative to the baseline financial projections
SOURCE: JEA financials, team analysis

² Net of recapitalization proceeds that go to the City

³ Assumes a 65% dividend payout ratio

JEA's 2030 Strategy involves executing a portfolio of initiatives that are organized into four categories

Note: far right column should be deleted if using in a non-ITN context

Initiative Category

Description

1	Operational improvements		Increase the efficiency and productivity of JEA's operations and O&M and capex spend to create investment headroom to reinvest, to support customer affordability, and to improve service quality and performance outcomes	Reflected in Respondent Financial Model
2	Strategic capital investments		Make incremental capital investments in JEA's core, existing utility businesses that expand the capabilities of JEA's infrastructure to serve customers while growing earnings and the regulated asset base	Partially Reflected in Respondent Financial Model
3	Core growth opportunities		Invest in new growth businesses – both within the regulated utility and beyond it – that grow JEA's earnings through delivery of new services and solutions to JEA stakeholders	Partially Reflected in Respondent Financial Model
4	Additional growth opportunities		Identified additional growth initiatives that position JEA as a growth platform	Additional Upside Not Reflected in Respondent Financial Model

These initiatives allow JEA to achieve its full slate of aspirations, both financial and non-financial

JEA's overall vision



JEA is a **platform for economic development in Jacksonville** – a magnet for new businesses and a recognized leader in identifying, incubating, and scaling innovative infrastructure solutions
This platform is built on a **strong operational foundation** – national leadership in water and electric power, underpinned by a best-in-class workplace that advances careers and attracts premium talent to Jacksonville



Outcomes by Measure of Value

Environment. Incrementally reduce our environmental footprint, reducing GHG emissions and providing clean air and water for our community

Community. Improve the quality of life for residents of Jacksonville by providing accessible infrastructure and spurring economic growth and job creation

Financial. Build a profitable, sustainable, and low-risk utility business that can continue to create value for its stakeholders in line with utility peers

Customer. Meet evolving customer needs with a range of new, innovative offerings while continuing to deliver top quartile, regionally affordable services

Workforce. Develop a top quartile OHI workforce that can execute the 2030 strategy

Key initiatives

Operational improvements



Minimize environmental impacts from leaks, outages

Leverage best-in-class operations knowledge when building businesses, fostering economic development

Create additional investment headroom through reductions in the O&M components of bills

Deliver a better customer experience while maintaining overall affordability

Build an industry leading, customer-centric culture focused on driving loyalty and value

Strategic capital



Invest in sustainable infrastructure for low-carbon power generation and water reclamation

Ensure continuity of public services during extreme weather events by increasing the resilience of our infrastructure

Generate additional earnings through regulated capital deployment while reducing stranded asset risks

Invest in a more flexible "Network of the Future" that accommodates new products and solutions

Create an in-house innovation hub to actively invest in developing new capabilities and shape the market

Growth opportunities



Accelerate uptake of new, clean technologies (e.g., rooftop solar, energy and water efficient appliances)

Drive economic growth by building an Economic Development hub that attracts dynamic new businesses to Jacksonville

Improve the quality of JEA's earnings and overall risk profile via new business opportunities, diversifying earnings streams

Incubate and deploy new solutions that equitably and affordably meet customer needs

Set aside time for regular, open forums with JEA leadership (e.g., monthly "Ask Me Anything" town hall sessions)

Critical enablers



Strengthen our **organizational health** by positioning JEA as a market mover with employees empowered to achieve our full slate of aspirations

Invest in **digital** tools and capabilities at scale, including smart assets, new software tools, advanced analytics capabilities, and front-end digital applications

Proactively engage with stakeholders -- customers, environmental groups, regulators, legislative bodies -- to shape **regulatory** policy to meet community objectives

Metrics to track our success



Carbon intensity of generation mix
% of water from reclaimed sources

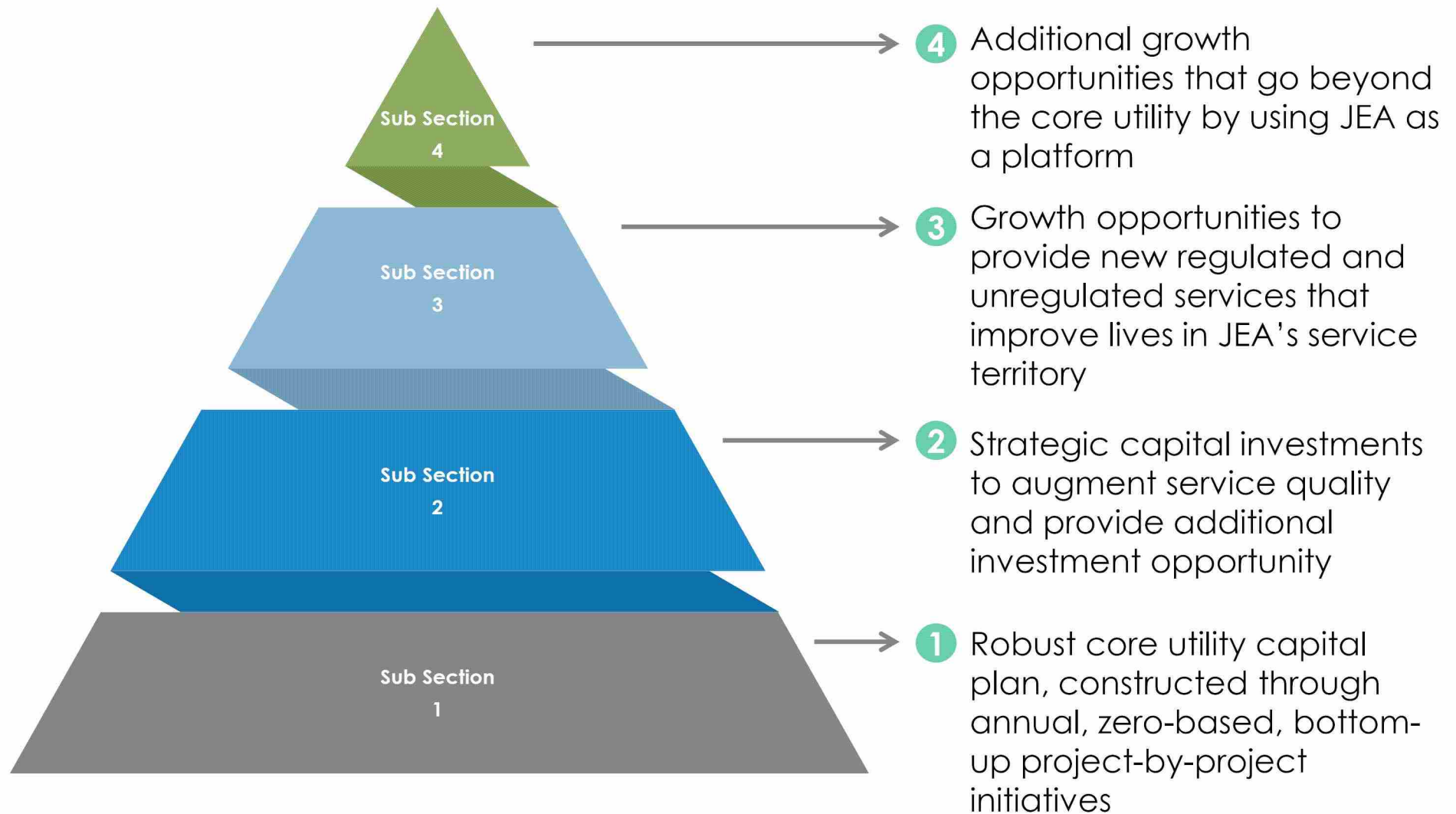
New public services offered
new jobs created
Sustained outage hours

Earnings growth
% of revenues from new businesses
Economic value to the City of Jacksonville

Share of wallet
CAIDI/SAIFI/SAIDI

OHI

JEA's capital plan builds on a strong foundation of execution










Sub Section 1

Operational Improvements

1 Overview of operational improvements

JEA is launching a set of initiatives that cut across business functions to increase quality of service while reducing costs

Frontline operational improvements		<ul style="list-style-type: none"> • Implement lean process improvements to drive increased productivity that will be monetized through attrition, e.g.: <ul style="list-style-type: none"> – Eliminate wait times in core processes (e.g., crews have required materials to complete at job at the start of the shift) – Eliminate unnecessary work or processes (e.g., stop preventative maintenance and inspections that don't improve asset performance or health) – Streamline routing of crews and materials to lower transportation costs (e.g., redesign work planning and dispatch)
Digitalization and automation		<ul style="list-style-type: none"> • Leverage digital tools to redesign our ways of working (e.g., predictive maintenance algorithms, automated scheduling tools that prioritize and assign work to the right crews at the right time) • Provide seamless, low-touch digital channels to meet customer needs through mobile and web platforms • Automate and streamline basic tasks, including customer interactions, using process automation, self-service tools, and intelligent chatbots
Demand management		<ul style="list-style-type: none"> • Optimize the demand for materials and 3rd party services across the organization (e.g., frequency of replacements, revising required specs of materials and scope of services, deferring or cancelling unnecessary spend)
Optimization of fuels and energy consumption		<ul style="list-style-type: none"> • Reduce heat rate to minimize fuel consumption through performance tracking and targeted technical improvements • Minimize consumption of auxiliary load across JEA's facilities (e.g., turning off unnecessary equipment)
Strategic sourcing		<ul style="list-style-type: none"> • Scrub the capital portfolio against JEA's strategic priorities, eliminating or deprioritizing non-critical projects • Optimize project delivery (e.g., integrated design and project execution) to deliver the work at a lower cost • Manage strategic sourcing events to maximize value to JEA, leveraging the full suite of tools available – commercial negotiations (e.g., fact-based, value-focused negotiations with suppliers) and process improvements (e.g., developing and managing systems to claim warranties)

1 Operational improvements timeline to capture

All timing refers to calendar year

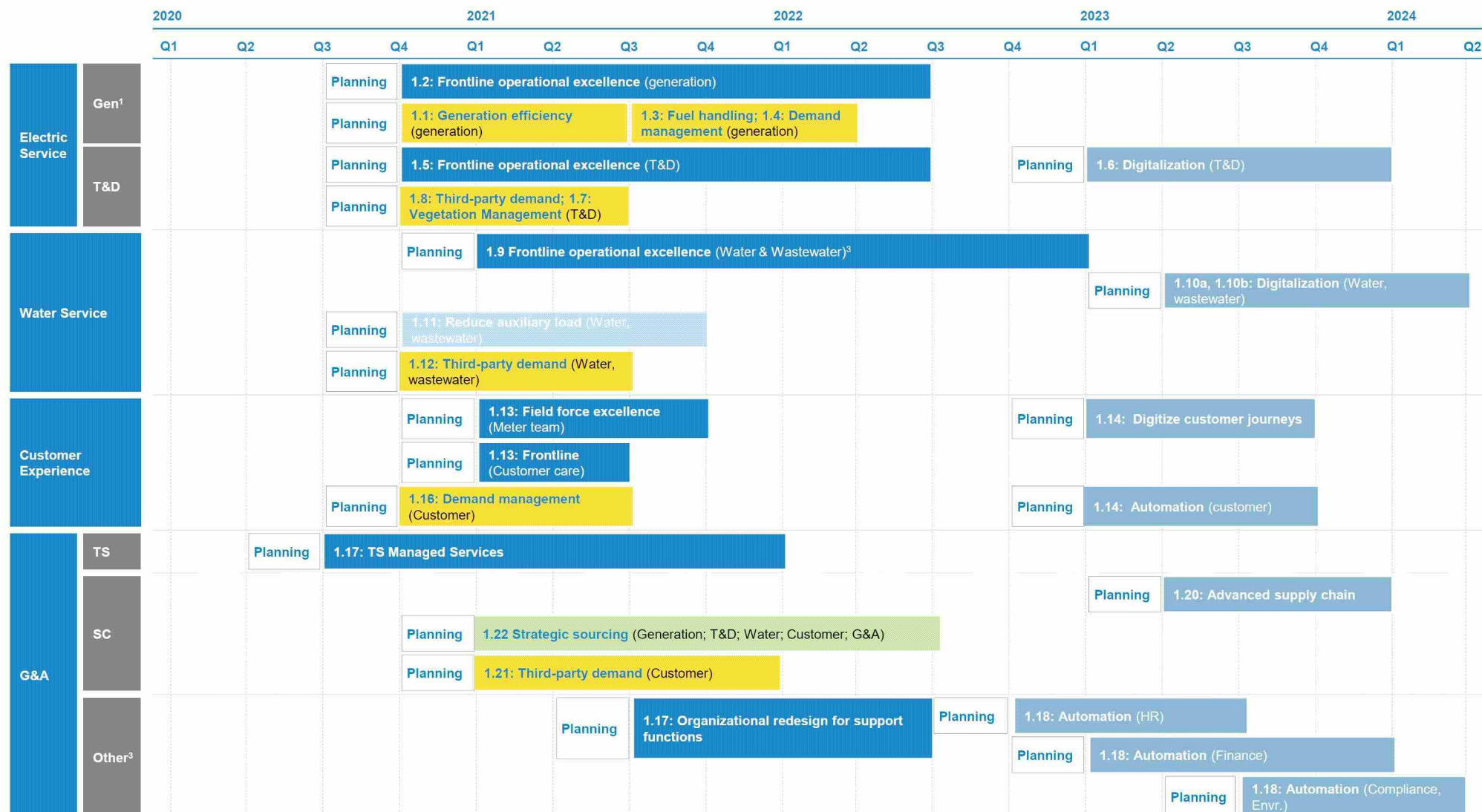
Strategic sourcing

Fuel management

Digital

Frontline operations

Demand management



1 All of the major initiative categories will be rolled out to Northside, Kennedy, Brandy Branch, and Greenland generation facilities; 2 Bottom up planning
Environmental; 4 To be rolled out in the following order: Buckman; District II; Southwest; Arlington; and Water Treatment Plants

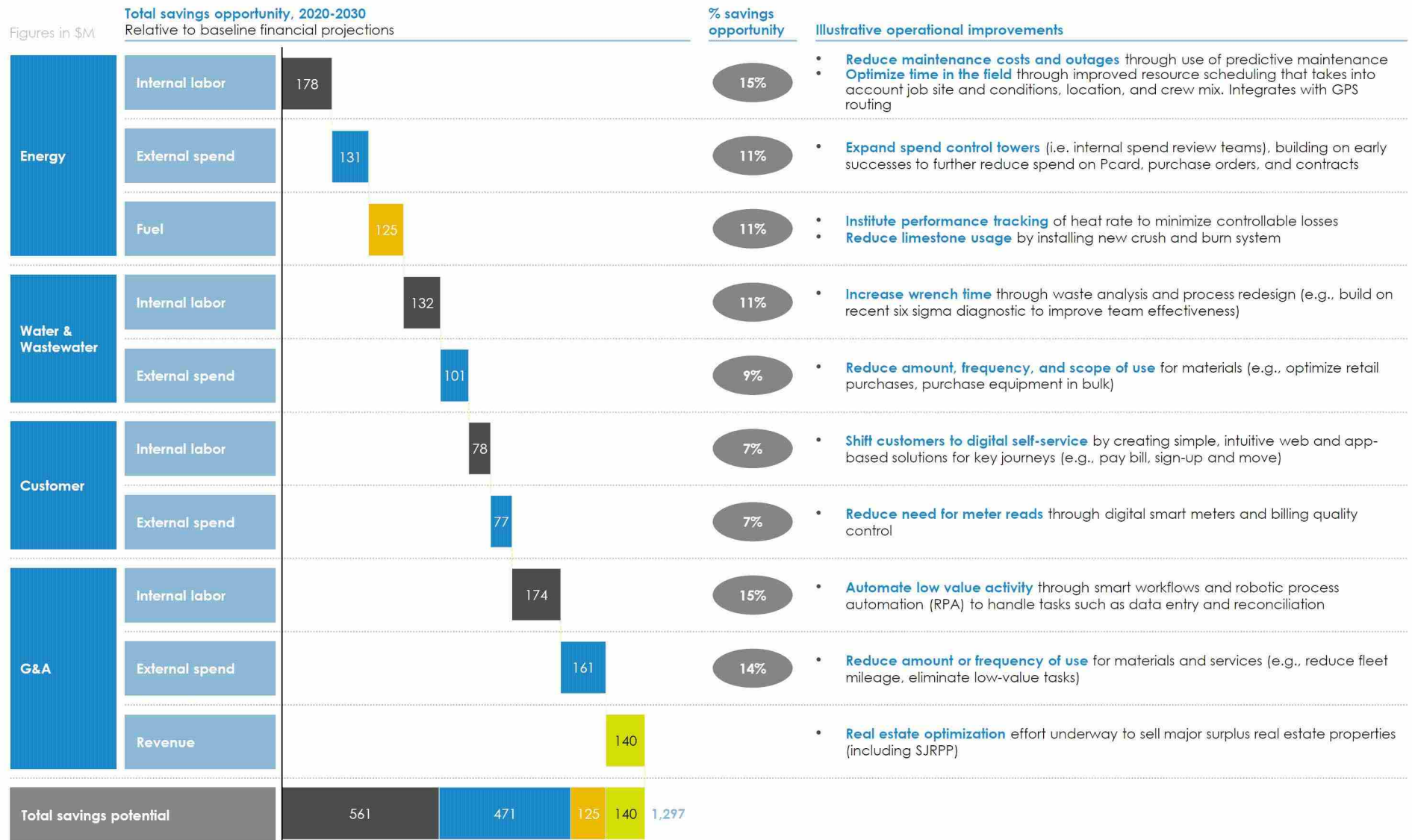
3 HR, Finance, Compliance,

SOURCE: JEA financial statements, 2018 budget, and senior team initiative development

1 These initiatives generate savings of ~\$1.3B

DRAFT – pending revisions to fuel savings and O&M savings achieved by closing NS
Savings will be higher than what is shown here

Internal labor External spend Fuel Revenue



This is a top-down assessment that leverages external benchmarks, no-regrets initiatives identified by management and prior case studies from comparable transformations




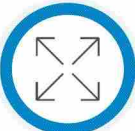



Sub Section 2

Strategic Capital Investments

2 Overview of strategic capital

Electric Water Cross-cutting

JEA will make five types of additional investments to expand the benefits our infrastructure provides to our community and customers

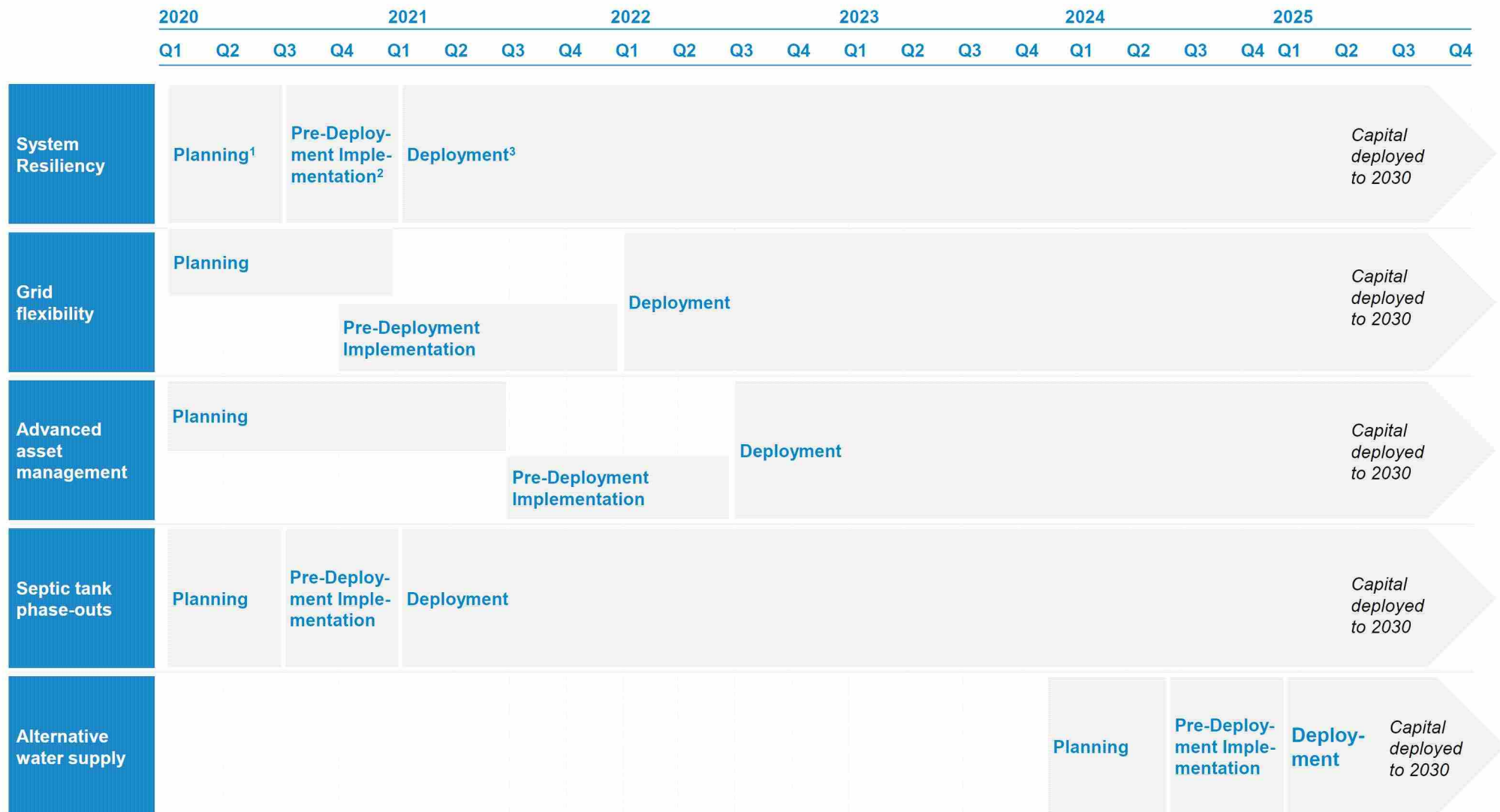
System resiliency		Reduced impacts on utility services from extreme weather events through the deployment of new technologies and enhanced design standards
Grid flexibility		The ability to use a growing, diverse set of resources to dynamically shift demand (load) or supply (generation) across multiple timescales, depending on system needs
Advanced asset management ⁽¹⁾		Improved observability of infrastructure systems through the deployment of distributed, intelligent devices and advanced operational technology platforms
Septic tank phase-outs		Cleaner, safer, and more convenient wastewater services through system expansion and phase-out of septic tanks
Alternative water supply		Accelerated plans to expand reclaimed water infrastructure

- There are significant **investment opportunities incremental to JEA's baseline** (i.e., the 10-year capital forecast)
 - The capital associated with these investment opportunities are included in the Respondent Financial Model as separate, discrete line items
- The following pages show **both specific potential investments and a reasonable 10-year capital program for each category**
- Unlike the rest of JEA's capital plan, these figures do not reflect a bottom's-up, granular investment plan

Note: Advanced asset management investments (e.g., data and analytics platforms) can support both electric and water businesses (e.g., predictive maintenance strategies, crew routing and dispatching). A greater share of the required capital identified to date is related to the electric business (e.g., transformer monitoring solutions, new WMS), so the capital associated with advanced asset management (\$70M) has been fully allocated to the electric business in the Respondent Financial model as a simplifying assumption.

2 Strategic capital investments timeline to capture

All timing refers to calendar year



¹ In capital projects, the scoping phase roughly corresponds to the planning phase in this framework, the engineering phase to pre-deployment implementation phase in this framework, and the execution phase to the deployment phase in this framework

SOURCE: JEA financial statements, 2018 budget, and senior team initiative development

2 Generation overview

Overview

- The generation fleet consists of four owned and operated power plants that use fossil fuels, primarily natural gas, with generating capacity of 3,135 Megawatts⁽¹⁾ ("MW") and a joint ownership interest in Plant Scherer Unit 4, which has a net generating capacity of 198 MW
- Four owned and operated plants are the J. Dillon Kennedy Generating Station ("Kennedy"), the Northside Generating Station ("Northside"), the Brandy Branch Generating Station ("Brandy Branch") and the Greenland Energy Center ("GEC")
- JEA leverages the flexibility of its existing resources and the significant investment that has been made in the Electric System's generation assets to address customer needs
- JEA is dedicating capital to ensure the long-term availability of safe, reliable power while taking into consideration the age of its generation assets, prospective environmental regulations, energy efficiency and demand-side management, and evolving customer preferences and expectations

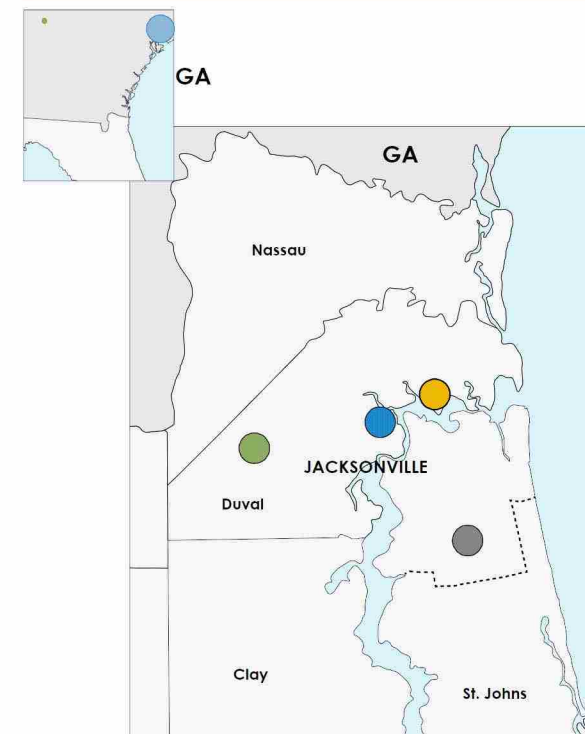
Generation Fleet

Facility		Primary Fuel Type	Capacity (MW) ⁽¹⁾	Year in Service
Gas Fuel:				
Brandy Branch	●	Natural Gas	816	2001-2005
Northside Unit 3	●	Natural Gas / Oil	524	1977
Kennedy	●	Natural Gas	382	2000-2009
GEC	●	Natural Gas	382	2011
Solid Fuel:				
Northside Units 1&2	●	Pet Coke	586	2003
Scherer Unit 4	●	Coal	198	1989
Peaking Reserve:				
Northside CTs	●	Diesel Fuel Oil	246	1975
Total			3,135	

¹ Reflects Winter Net Capacity

SOURCE: 2018 Annual Disclosure Report

Generation Facility Locations



- Electric System Overview

2 Evolution of generation portfolio in the next decade

Overview

JEA is planning two significant retirements and replacements to maximize value to customers in the community:

- Beginning in 2025, JEA will replace the 524 MW Northside Unit 3 with a natural gas combined cycle facility
 - This replacement enables the smooth retirement of a vintage 1977 unit from JEA's fleet and replacement with a more efficient facility, improving JEA's environmental footprint
- Later In the decade, JEA expects solar + storage to offset the costs of operating Units 1 & 2, allowing JEA to replace 586 MW of coal generation with clean, reliable capacity and energy
 - Enhanced investment opportunity resulting in lower overall rates to customers and substantially improving JEA's environmental footprint is a unique win-win-win opportunity



The Northside replacement initiatives represent a material increase in JEA's renewable energy portfolio and a meaningful investment opportunity

SOURCE: 2018 Annual Disclosure Report






Sub Section 3

Core Growth Opportunities

Disclaimer: any and all earnings figures included in this section are estimates and sensitive to many modeling assumptions (e.g., year capital deployed, capital structure, rates, ROE, etc.)

JEA will harness opportunities across three markets to serve customers more effectively, driving development in Jacksonville

	How trends are creating opportunities	Jacksonville Today	How JEA will harness opportunities for customers
 Electrified transport and facilities	<ul style="list-style-type: none"> The transition to electrified products – driven by declining costs and evolving customer preferences – requires significant infrastructure investments and grows load 	<ul style="list-style-type: none"> EV penetration is approximately 33% of the national average ⁽²⁾ No plans to fully electrify ports or municipal fleets 	<ul style="list-style-type: none"> Provide EV incentives, public charging infrastructure, and private charger installation, boosting EV adoption to be in line with the US average Electrify the Port of Jacksonville / non-road end users and municipal and public school buses
 DG solar and storage	<ul style="list-style-type: none"> Solar and storage LCOEs declined nearly 3x in Florida from 2010-17 due to lower hardware prices Customers are increasingly looking to solar plus storage as a convenient, affordable, and reliable generation option 	<ul style="list-style-type: none"> Fewer than 0.5% of customers in Jacksonville have installed DG solutions 	<ul style="list-style-type: none"> Build community solar, providing equitable access to DG Offer residential storage installation to accelerate pre-parity adoption Provide C&I DG installation services throughout the region
 Energy efficiency	<ul style="list-style-type: none"> Customers are seeking out an increasingly sophisticated, robust set of energy efficient (EE) home and business solutions to manage energy use 	<ul style="list-style-type: none"> Jacksonville residents are increasingly adopting EE products, but FL utilities have been hesitant to seek earnings on lost load ⁽¹⁾ JEA has begun some public lighting upgrades, in partnership with the City ⁽³⁾ 	<ul style="list-style-type: none"> Seek incentives that provide fair compensation for the deployment of EE devices Power Jacksonville's streetlights with "smart", efficient lighting, building on current programs ⁽³⁾

Notes:

While US utilities, on average, earned 0.7% of 2017 retail sales from Energy Efficiency savings, Southeast utilities earned 0.3%

As a % of car parc. Based on Management Response forecasts, in 2019, EVs comprised 0.2% of the JAX LDV fleet, vs. the national average of 0.6%

JEA has upgraded 30,000 traffic signal bulbs to LED, and has upgraded the majority of its streetlights (> 60%)


3 Core growth opportunities



Included in the Respondent Financial Model Management Case and Management Case under Scenario A



Included in the Respondent Financial Model Community Improvement Case

 Electrification		
Initiative	JEA's business model	Start year
3.1 Expand incentives for electric vehicles and chargers	<ul style="list-style-type: none"> JEA will generate regulated earnings from the \$15M in Capex deployed to provide vehicle and charger incentives to customers, and administer the overall program, contributing to an incremental 72GWh of load growth in 2030 by supporting EV market growth 	2020
3.2 Build out public DC FAST and L2 charging throughout Jacksonville	<ul style="list-style-type: none"> JEA will generate regulated earnings from the \$304M in Capex deployed to install and maintain public L2 and DC Fast chargers, contributing to an incremental 72GWh of load growth in 2030 by supporting EV market growth 	2021
3.3 Own and operate bus charging infrastructure for Jacksonville's city and public school fleets	<ul style="list-style-type: none"> JEA will generate regulated earnings from the \$95M in Capex deployed to design, install, and maintain municipal electric school buses and public transit bus charging infrastructure in partnership with the City and Jacksonville Public Schools 	2022
3.4 Build an L2 home charger installation business	<ul style="list-style-type: none"> JEA will become the premier entity in Jacksonville to install the ecosystem of private home L2 chargers, earning a 15%⁽¹⁾ margin on installation, contributing to an incremental 72GWh of load growth in 2030 by supporting EV market growth 	2023
3.5 Electrify non-road end ⁽²⁾ uses	<ul style="list-style-type: none"> JEA will generate regulated earnings from the \$35M in Capex deployed from an ambitious program to support electrification of port equipment and in-port activities (e.g., cranes and freight carriers) 	2023

Notes:

Assumes ~15% margin, \$420/charger fee, and share of new chargers market reaching 27% in 2030

Capital opportunity reflects investment the Port of Jacksonville, but JEA will pursue other non-road electrification opportunities as well

3 Core growth opportunities Detail (cont'd)



Included in the Respondent Financial Model Management Case and Management Case under Scenario A



Included in the Respondent Financial Model Community Improvement Case

DG Solar and Storage

Initiative	JEA's business model	Start year
3.6 Install, own, and dispatch behind the meter DG storage	<ul style="list-style-type: none"> JEA will generate regulated earnings from the \$31M in Capex deployed to install and maintain utility-owned behind-the-meter battery storage, "boosting" near-term DG uptake in the pre-cost parity years 	2021
3.7 Build a DG solar installation business for Industrial customers	<ul style="list-style-type: none"> JEA will provide solar design, development, and installation services for C&I customers 	2022

Energy Efficiency

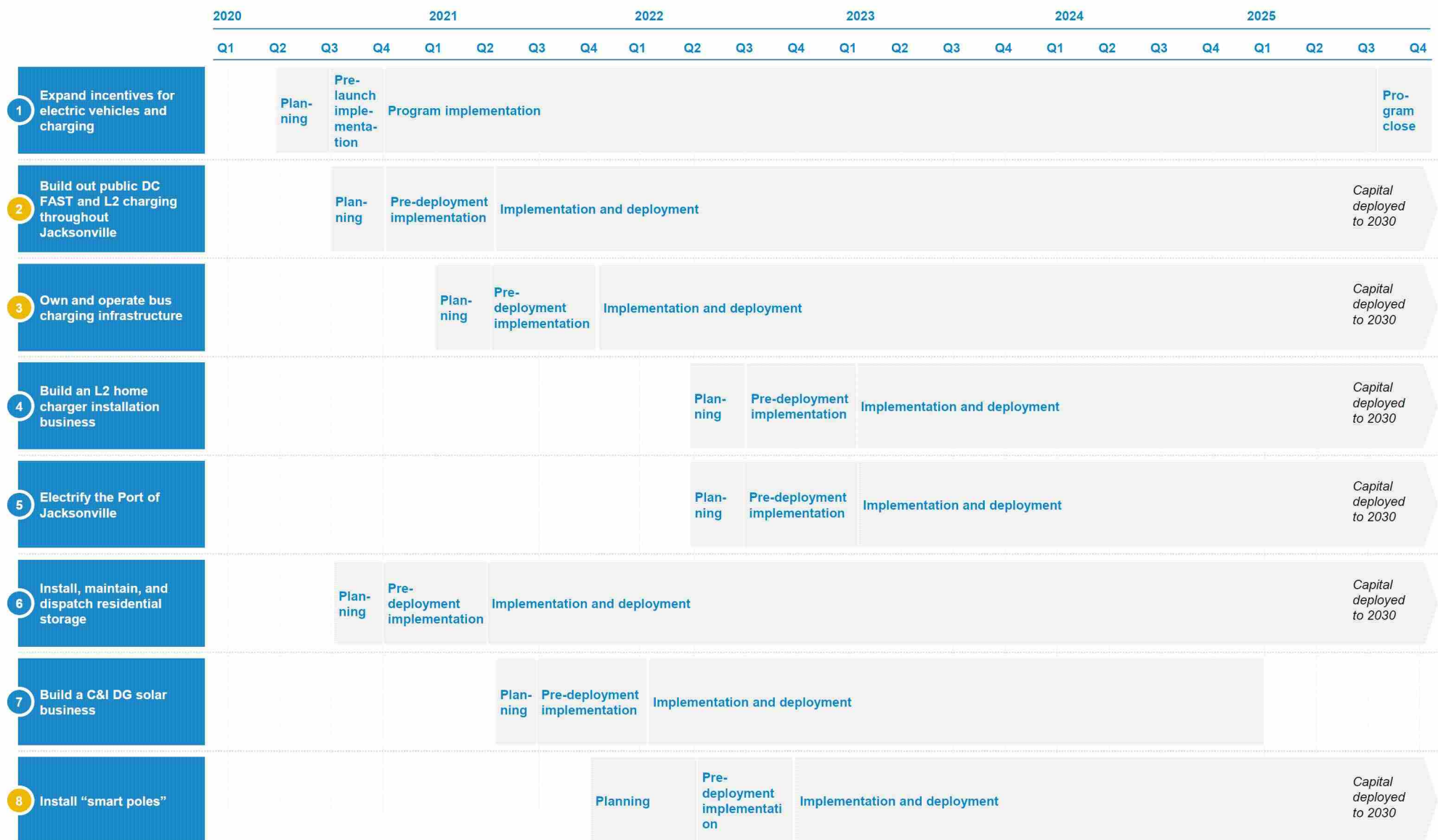
Initiative	JEA's business model	Start year
3.8 Install "smart poles," building on JEA's existing "smart streetlights" program	<ul style="list-style-type: none"> JEA will generate regulated earnings from the \$200M in Capex deployed to build out "smart poles" in its service territory to enable the roll-out of new public services and smart city use cases (e.g., free community WiFi, environmental data sensors to support traffic algorithms, etc.) 	2023

3 Core growth opportunities timeline to capture

All timing refers to calendar year

x Included in the Respondent Financial Model Management Case and Management Case under Scenario A

x Included in the Respondent Financial Model Community Improvement Case



3 JEA's 2030 core growth opportunities consist of 8 initiatives



Included in the Respondent Financial Model Management Case and Management Case under Scenario A



Included in the Respondent Financial Model Community Improvement Case

Market	Initiative ⁽¹⁾	Cumulative regulated capital deployment, 2020-30 ⁽²⁾		Cumulative unregulated margins	
Core Growth Opportunities	 Electrified transport and facilities	1	Expand incentives for electric vehicles and chargers	\$15M	--
		2	Build out public DC FAST and L2 charging throughout Jacksonville	\$304M	--
		3	Own and operate bus charging infrastructure for Jacksonville's city and public school fleets	\$95M	--
	 DG solar and storage	4	Build an L2 home charger installation business	--	<\$1M
		5	Electrify the Port of Jacksonville	\$35M	--
		6	Install, maintain and dispatch residential storage	\$31M	--
	 Energy efficiency	7	Build a C&I DG solar design, development, and installation business	--	\$12M
		8	Install "smart poles" to enable new smart city use cases	\$200M	--

Notes:

Detail follows. Initiatives with regulated capital deployment generate earnings via the regulated rate base. Initiatives with unregulated margins do not contribute to the rate base. Refer to the Respondent Financial Model for required rate of return.

3 JEA's strengths provide a foundation to drive further growth and economic development in Duval County

JEA's intrinsic assets



- **Robust infrastructure.** JEA owns and manages energy and water networks directly related to major policy decisions and customer trends
- **Skilled workforce.** JEA has a capable, trained workforce active in the construction and management of critical infrastructure
- **Relatively large footprint.** Jacksonville is the largest city within a 100-mile radius, providing JEA a significantly larger customer base and greater sophistication than nearby peers

JEA's relationships



- **With customers.** JEA has unique access to each Jacksonville resident and business, and top quartile customer satisfaction¹
- **With the Jacksonville community.** JEA is a known community entity that has contributed over \$1B to the City of Jacksonville in the last decade
- **Throughout Northeast Florida.** JEA has long-standing, trusted relationships with nearby municipal utilities share a similar operating “DNA” as JEA

Jacksonville's distinctive characteristics



- **High-growth MSA.** Jacksonville is a growing, business-friendly community
- **Commercial hub.** The Port of Jacksonville supports \$30B in annual economic output, serving 70M+ consumers within a one-day drive
- **Magnet for educated Floridians.** Home to several Florida universities, and a major hub where Florida students relocate after graduation

¹ As rated by JD Power

SOURCE: JAXPORT, JEA Invitation to Negotiate



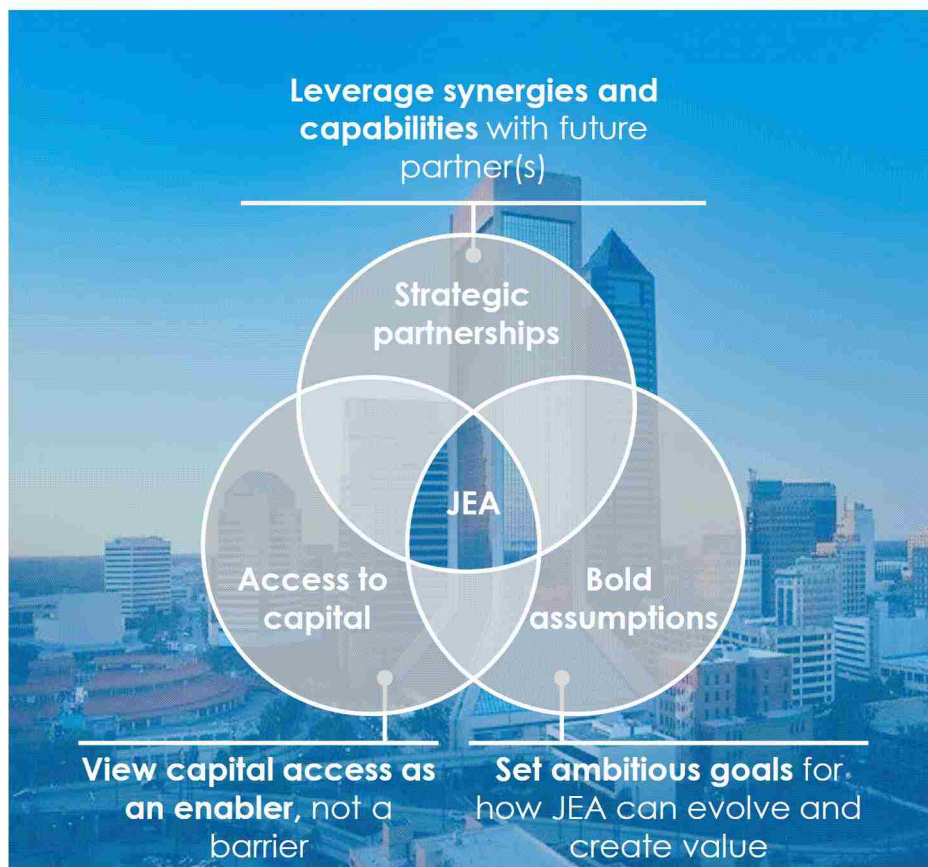
Sub Section 4

Additional Growth Opportunities

Additional growth opportunities harness market trends to build 4 ambitious businesses at a larger geographic and commercial scale

Additional growth opportunities are outside of the core utility construct...

...and involve building a well-balanced set of dynamic, high value businesses operating beyond JEA's service territory



A



Increase JEA's water footprint via acquisition, using its top quartile operational performance and capabilities to provide more efficient, affordable services across Florida

B



Substantially **grow JEA's customer base for the District Energy System** by executing the Lot J development and the larger master plan, with over 4 million of concentrated development

C



Increase dark fiber leasing as JEA invests in its digital communications network to ensure it can provide the speed and capacity needed by new, distributed smart assets at the grid edge

D



Monetize SJRPP and other owned land parcels for new development projects, such as a liquefied natural gas facility, dedicated port or rail facility, large data center with back-up generation, or new generation facility (already permitted)

E



Become the premier **future solutions homes supplier** in Florida, providing resource efficient, optimized ecosystems of products and services for homes and communities

4 STRATEGIC INITIATIVES – ADDITIONAL GROWTH OPPORTUNITIES Additional growth opportunities not reflected in Respondent Financial Model

Additional Growth Opportunities:

A Water System Opportunities

- Financial projections do not consider the potential upside from expansion of the Water and Wastewater System through local water utility system acquisitions, similar to the near-term opportunity presented by the current Mayport Naval Station RFP contemplating transfer of ownership and management of its of the wastewater utility system

B District Energy Expansion Opportunities

- Financial projections do not reflect the potential to add additional customers as a part of the Lot J development and the larger master plan that encompasses over 4 million square feet of concentrated development

C Dark Fiber Growth Opportunities

- Financial projections do not include further monetization of excess capacity of JEA's fiber-optic network through 3rd party leases
- Proliferation of smart, distributed devices will likely require increases in network capacity and speed, supporting expansion of the fiber-optic network

D Owned Land Opportunities

- Financial projections do not capture potential to monetize JEA's land and other owned land parcels for the following potential uses:
 - Liquefied Natural Gas Facility
 - Dedicated Port and/or Rail Facility
 - Large Wholesale Data Center with dedicated generation
 - New Generation Facility (Currently Permitted)

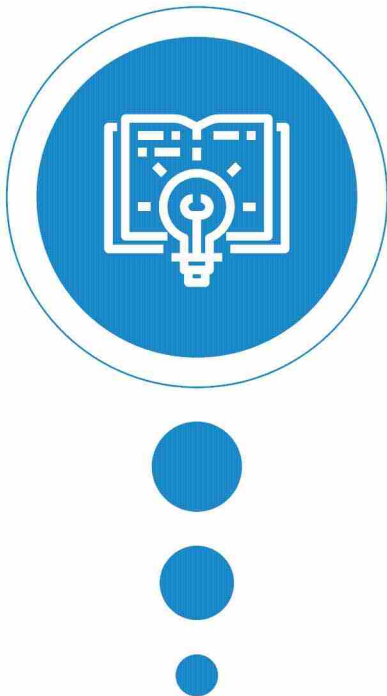
E Emerging Future Homes Opportunities

- Financial projections do not include opportunities to participate in the emerging Future Homes market
- JEA's deep expertise in the engineering, management, and maintenance of energy and water systems would be valuable to many potential partners seeking to develop integrated home solutions for resilience, resource efficiency, and automation/control

 Financial projections do not account for numerous tangible sources of potential upside

Table of Contents

 Detail to follow



About this document

An overview of the approach and guidelines to JEA's strategy development

Strategic aspirations for JEA

2030 Vision for JEA across strategic pillars (customer, environmental, community, financial), with metrics outlined for each pillar; summary of how strategic initiatives will achieve financial and non-financial metrics

Operational improvements

Redesign of JEA's operating practices to achieve top-quartile performance as measured against JEA's peer set

Strategic capital investments

Investments in traditional utility infrastructure to deliver new outcomes and benefits to our customers (e.g. customer resiliency, grid flexibility and customer choice, clean and sustainable, etc)

Core growth opportunities

Investments in new growth businesses core to the utility model: transport electrification, energy efficiency, distributed generation

Additional growth opportunities

Additional growth initiatives that position JEA as a growth platform that are currently not included in the financial projections

Next steps

Next steps to build capabilities and execute strategy

Appendix 1: Initiative charters and supporting analyses

Further detail on the strategic and financial objectives for each new initiative

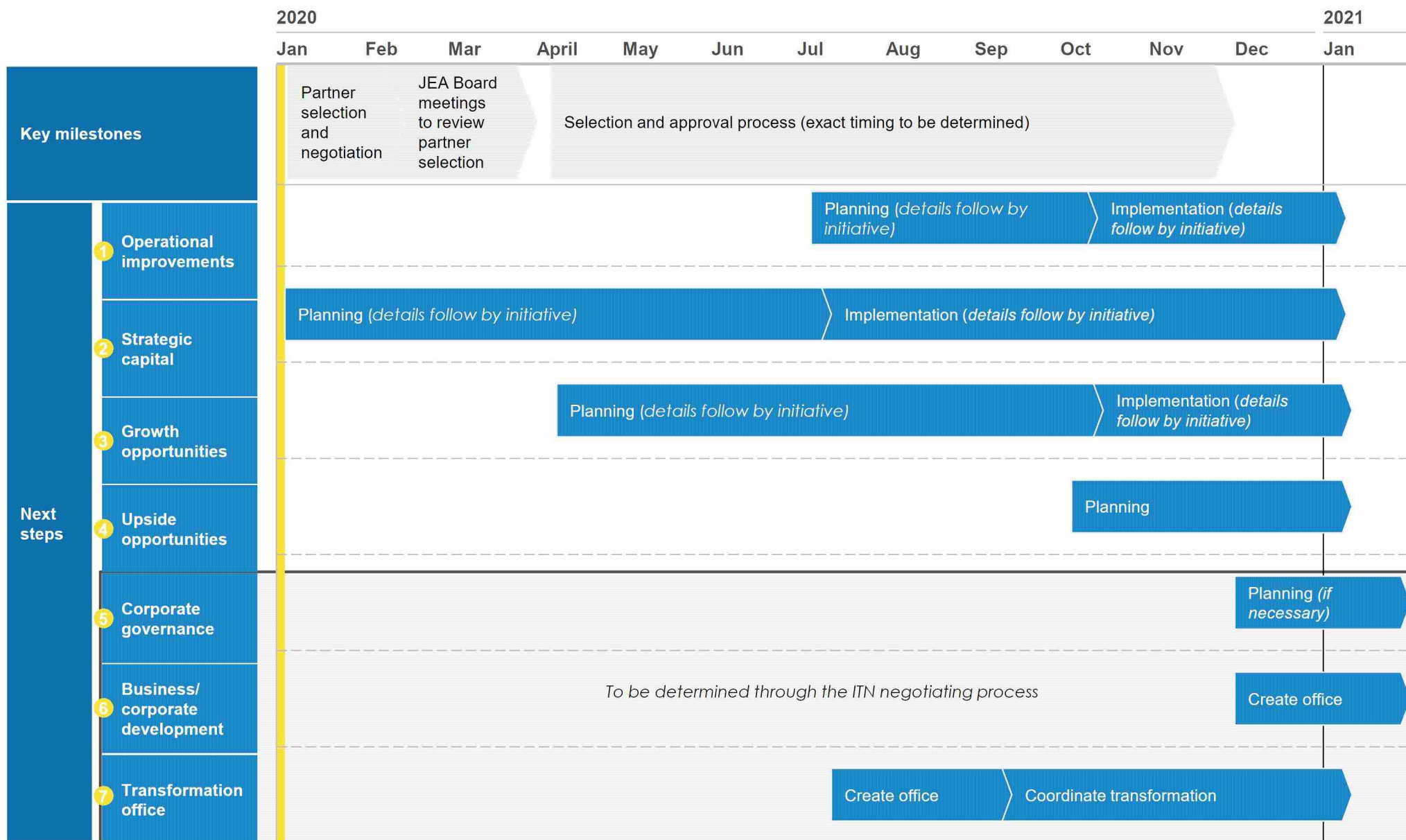
Appendix 2: Next steps on implementation

Critical next steps to drive implementation of the strategic plan

Appendix 3: Organizational health initiatives

Actions JEA will undertake to improve its organizational health

Potential timeline to prepare JEA for strategy execution



1 There are 5 key capabilities that are needed across initiatives



Centralized project management support resources with clear roles and responsibilities that define and manage large strategic projects, especially cross-functional



Create a business development function that can successfully identify and take to market innovative products and services



Additional resources with technical expertise in new areas of technology (e.g., assets used in grid flexibility, solar, etc.)



Larger, centralized pool of digital and analytics talent, matrixed to key business functions that can support dashboarding, analytics and modeling, and development of new tools (e.g., inventory optimization, setting mins/maxes)



Regulatory resources that can develop and articulate compelling strategies that support the goals of JEA and its customers (e.g., cost recovery mechanisms for septic tanks, transport electrification investments)

JEA's organizational health scores in the bottom quartile compared to the OHI global database

Peer Group Difference: ■ Significantly Stronger¹ ■ Comparable ■ Significantly Weaker¹

JEA's overall health score is in the bottom quartile...¹

Top Decile

Top Quartile

Second Quartile

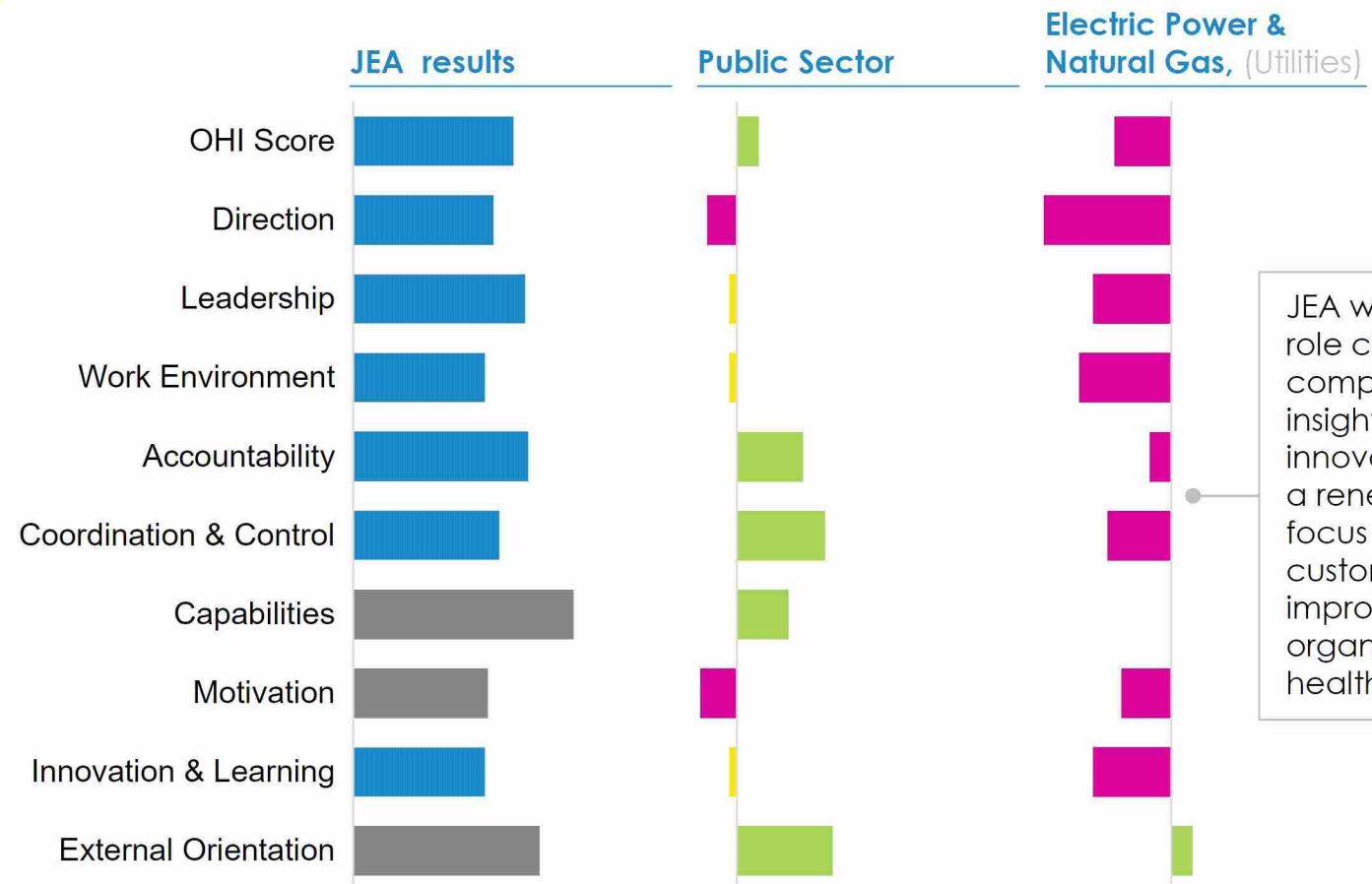
Third Quartile

Bottom Quartile

...and when compared to other groups with lower scores, JEA still scores low – including against other utilities

Percentage of respondents who selected 'agree' or 'strongly agree'

Difference between organization and benchmark median, pp

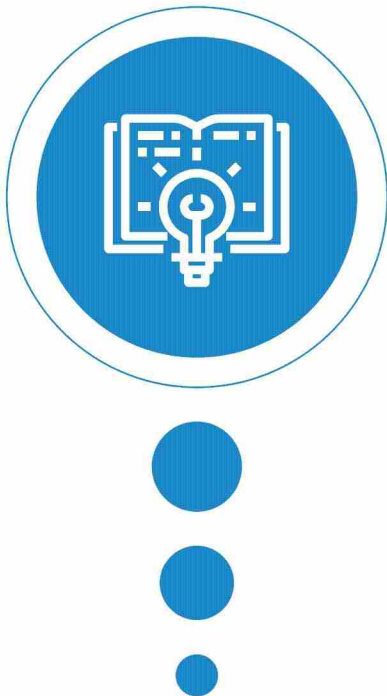


¹ The global database includes nearly 900 organizations across industries and geographies that have completed the OHI in the last 5 years

SOURCE: JEA (n=1685); Organizational Health Index Global Database

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Appendix 1

JEA

Initiative Charters and Additional Analyses



Sub Section 1

Operational Improvements

1 Generation Initiatives

xx

Internal labor

xx

Contracts

xx

Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.1 Improve generation efficiency to reduce consumption of fuels, other consumables	<ul style="list-style-type: none"> Institute performance tracking of heat rate to reduce variability and controllable losses Improve technical performance (e.g., clean HRSG, install better air inlet filter) Reduce limestone usage by installing new crush and burn system 	<div>-- Fuels and other consumables</div> <div>421²</div>	4%	<ul style="list-style-type: none"> Includes specific heat rate savings from Brandy Branch based on testing since SQ1 projection Incremental heat rate improv. based on Generation team assessment of remaining opportunity Annual materials savings from second limestone crusher based on Generation business case
1.2 Frontline operational excellence	<ul style="list-style-type: none"> Increase crew productivity by improving core work processes (e.g., planning and scheduling) and increasing “wrench time” for core workflows, e.g.: <ul style="list-style-type: none"> – Break-ins (e.g., bearing failures) – PMs (e.g., oil replacement) Optimize resourcing and schedules of craft across shifts to match volume of work with resources 	<div>43 Internal labor, 3rd party services</div> <div>16</div> <div>--</div>	8%	<ul style="list-style-type: none"> Based on positions identified by Generation leadership that can be phased out over the next two years
1.3 Lower fuel handling expenses	<ul style="list-style-type: none"> Outsource fuel handling services to cost-competitive third-party providers 	<div>28 Fuels labor</div> <div>--</div> <div>--</div>	*3	<ul style="list-style-type: none"> Based on top-down assessment by Generation team

1 Cannot occur within the first 3 years of any event

2 Represents fuel operating expense

3 Savings opportunity estimate provided directly by business

Source: JEA financial statements, 2018 budget, and senior team initiative development

1 Generation Initiatives (cont'd)

xx

Internal labor

xx

Contracts

xx

Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.4 Demand management	<ul style="list-style-type: none"> • Reduce demand for third-party materials and services by applying stricter purchasing controls and standardizing material request submissions, e.g.: <ul style="list-style-type: none"> – Reducing frequency of use (e.g., cleaning services) – Revising specifications (e.g., using non-OEM vs. OEM parts for equipment with lapsed warranties) – Insourcing work, when possible 	<div>--</div> <div>16</div> <div>13</div> <div>3rd party materials and services</div>	5%	<ul style="list-style-type: none"> • Extrapolated from existing no-regrets initiatives to reduce spend (e.g., Spend Control Tower, Pcard scrub)
	<ul style="list-style-type: none"> • Negotiate lower commercial rates for materials and services by: <ul style="list-style-type: none"> – Introducing new providers to increase competition (e.g., staff augmentation labor during outages) – Expanding supplier performance management systems and methodologies (e.g., on-time delivery, measuring time to complete jobs) – Leveraging additional flexibility as a non-governmental entity (e.g., outsource engineering, flexibility to discontinue vendors without multiple notices) 	<div>--</div> <div>16</div> <div>13</div> <div>3rd party materials and services</div>	10%	<ul style="list-style-type: none"> • Assumes JEA's small purchasing power will limit some of the opportunity created by removing current procurement requirements
1.22 Strategic sourcing Led by Supply Chain ¹				

¹ The strategic sourcing initiative is centrally managed, but cuts across generation, T&D, water & wastewater, customer, and G&A spend areas
 Source: JEA financial statements, 2018 budget, and senior team initiative development

1 T&D Initiatives

xx

Internal labor

xx

Contracts

xx

Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.5 Frontline operational excellence	<ul style="list-style-type: none"> • Increase crew productivity by improving core work processes (e.g., planning and scheduling) and increasing wrench time) <ul style="list-style-type: none"> – All jobs are work ready – Morning kickoffs start on time – Daily debriefs and feedback on opportunities 	<div>22</div> <div>2</div> <div>--</div> <div>Internal labor, third-party services¹</div>	5%	<ul style="list-style-type: none"> • T&D operations team believes there is limited non-digital opportunity
1.6 Digitalize frontline operations	<ul style="list-style-type: none"> • Further optimize processes, building off the improvements from frontline operational excellence by applying a series of digital tools that further increase productivity, improve customer experience, and maintain safety, e.g.: <ul style="list-style-type: none"> – Improve planning and scheduling by accounting for site conditions, real-time crew locations – Automate clerical tasks (e.g., dig requests, time sheets) – Enable digital collection of asset condition data 	<div>22</div> <div>2</div> <div>--</div> <div>Internal labor, third-party services¹</div>	10%	<ul style="list-style-type: none"> • T&D operations team believes there is more upside with digital tools, particularly assuming deployment of a new WMS
1.7 Demand management	<ul style="list-style-type: none"> • Reduce demand for third-party materials by applying stricter purchasing controls and standardizing material request submissions: <ul style="list-style-type: none"> – Reducing amount or frequency of use (e.g., address leakage) – Revising specifications (e.g., streamlining transformer specifications) 	<div>--</div> <div>--</div> <div>2</div> <div>Materials</div>	10%	<ul style="list-style-type: none"> • Target for materials set based on perspective of the T&D operations team that there is considerable upside

1. Does not include third-party services spend on vegetation management;

Source: JEA financial statements, 2018 budget, and senior team initiative development

1 T&D Initiatives (cont'd)

XX

Internal labor

XX

Contracts

XX

Materials

Initiative

Description

2018 addressable spend
baseline and description,
\$MManagement
Case savings
target

Context for Management Case

1.8

Vegetation
management

- **Improve procurement process**, bid packages, and bidding practices; implement performance management (e.g., miles trimmed by crew per day)
- **Optimize long-term cycle planning** and work management through machine learning that identifies highest areas of need relative to system priority and risk
- **Improve quality assurance process** and in-the-field forester audits

Contracted
vegetation
manage-ment

5%

- Concerns about speed of vegetation growth, severity of storms, and public opposition to increasing the cut margin during trim cycles

1.22

Strategic sourcing
Led by Supply Chain¹

- **Negotiate lower commercial rates for materials and services** by:
 - Introducing new providers to increase competition (e.g., staff augmentation labor during outages)
 - Expanding supplier performance management systems and methodologies (e.g., on-time delivery, measuring time to complete jobs)
 - Leveraging additional flexibility as a non-governmental entity (e.g., outsource engineering, flexibility to discontinue vendors without multiple notices)

3rd party
materials and
services

5%

- Unique voltage level of T&D system and small purchasing power

¹ The strategic sourcing initiative is centrally managed, but cuts across generation, T&D, water & wastewater, customer, and G&A spend areas
Source: JEA financial statements, 2018 budget, and senior team initiative development

1 Overview of energy savings

Internal Labor Non-Labor

Methodology

1. Begin with the baseline financial projections projection for O&M¹
2. Phase in initiative savings through 2025
3. Apply lower projected growth for labor/benefits and materials/services relative to baseline financial projections²

Savings do not include

- Fuel account savings from site-led initiatives

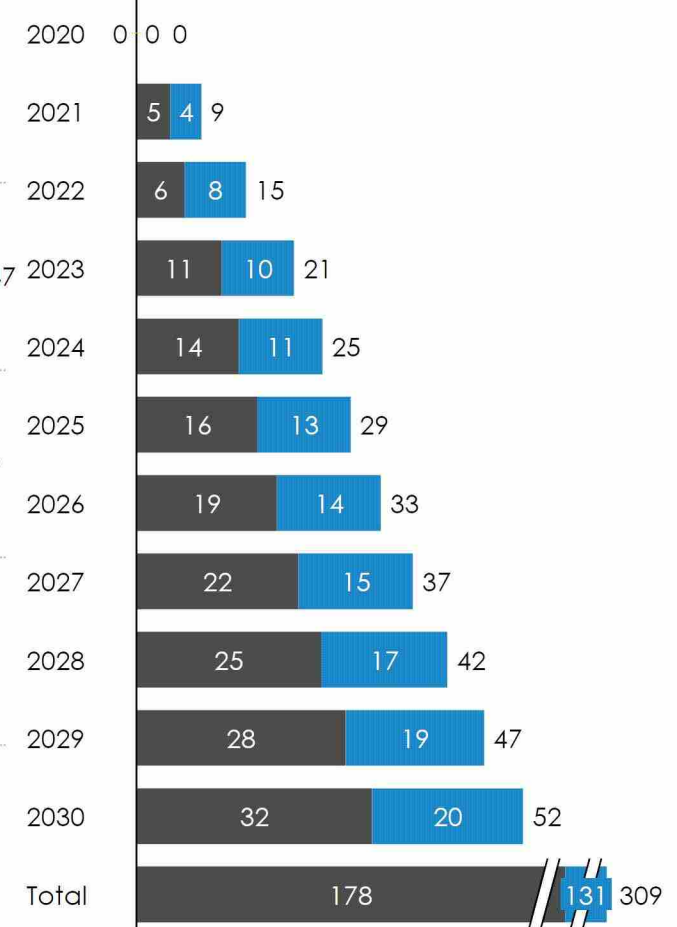
Financial impact of operational initiatives in 2030

Electric Service, \$M



Annual financial impact of operational initiatives

Electric Service, \$M



¹ Removes capital spend from the baseline financial projections Internal labor projection

² Baseline financial projections assumed annual increases of 5% for salaries and OT, 6% for benefits, and 4% for materials; the unconstrained strategy assumes annual increases of 3.5% for salaries, 3% for OT and benefits, and 2% for non-labor

Source: JEA financial statements, 2018 budget, and business team input

1 Water & Wastewater Initiatives

xx

Internal labor

xx

Contracts

xx

Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.9 Frontline operational excellence	<ul style="list-style-type: none"> • Increase crew productivity by improving core work processes (e.g., planning and scheduling) and increasing “wrench time,” e.g.: <ul style="list-style-type: none"> – All jobs are work ready – Morning kick-offs start on-time – Daily debriefs and feedback on opportunities) • Develop sludge disposal “cost curves” to pursue least-cost options on a week-to-week basis 	<div>34</div> <div>--</div> <div>--</div> <div>Water and wastewater field personnel (incl. pump stations)</div>	15%	<ul style="list-style-type: none"> • Many best practices are already in effect (e.g., hotspot jetting) • Six sigma effort in early stages of intervention and expected to yield short-term improvements • Significant upside through new digital tools to optimize work planning and deployment
1.10a Digitalize frontline operations (wastewater treatment)	<ul style="list-style-type: none"> • Further optimize processes, building off the improvements from frontline operational excellence by applying a series of digital tools that further increase productivity, improve customer experience, and maintain safety, e.g.: <ul style="list-style-type: none"> – Leverage equipment sensors to reduce the need for manual inspection – Use machine learning algorithms to drive predictive and condition-based maintenance – Improve planning and scheduling by accounting for job type, crew locations, etc. 	<div>11</div> <div>--</div> <div>--</div> <div>Labor at wastewater treatment sites</div>	10%	<ul style="list-style-type: none"> • Some incremental opportunity, particularly at plants with larger footprints
1.10b Digitalize frontline operations (water treatment)		<div>5</div> <div>--</div> <div>--</div> <div>Labor at water treatment sites</div>	5%	<ul style="list-style-type: none"> • Most recommended practices are already in effect (e.g., consolidated control room) with limited ability to capture incremental savings off small labor pool

Source: JEA financial statements, 2018 budget, and senior team initiative development

1 Water & Wastewater Initiatives (cont'd)

xx Internal labor xx Contracts xx Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.11 Reduce auxiliary load	<ul style="list-style-type: none"> • Reduce pumping costs by optimizing pumping cycles to ensure pump stations do not work against each other (i.e., reduce electricity consumption) 	<div> <div>xx</div> <div>--</div> <div>Utility charges</div> </div> <div> <div>xx</div> <div>--</div> </div> <div> <div>xx</div> <div>15</div> </div>	5%	<ul style="list-style-type: none"> • No current capabilities to intelligently manage pumping cycles to optimize electricity use
1.12 Demand management	<ul style="list-style-type: none"> • Reduce demand for third-party materials by applying stricter purchasing controls and standardizing material request submissions, e.g.: <ul style="list-style-type: none"> – Revising material specifications – OEM vs. non-OEM supplier – Purchasing through wholesale channels (i.e., bulk) vs. purchasing at local retailers (e.g., Home Depot) 	<div> <div>xx</div> <div>--</div> <div>Materials</div> </div> <div> <div>xx</div> <div>--</div> </div> <div> <div>xx</div> <div>13</div> </div>	5%	<ul style="list-style-type: none"> • Significant opportunity to optimize channel (e.g., reduce unnecessary retail purchases)
1.22 Strategic sourcing ²	<ul style="list-style-type: none"> • Negotiate lower commercial rates for materials and services by: <ul style="list-style-type: none"> – Introducing new providers to increase competition (e.g., staff augmentation labor during outages) – Expanding supplier performance management systems and methodologies (e.g., on-time delivery, measuring time to complete jobs) – Leveraging additional flexibility as a non-governmental entity (e.g., outsource engineering, flexibility to discontinue vendors without multiple notices) 	<div> <div>xx</div> <div>--</div> <div>3rd party services</div> </div> <div> <div>xx</div> <div>11</div> </div> <div> <div>xx</div> <div>13</div> </div> <div> <div>xx</div> <div>materials</div> </div>	10%	<ul style="list-style-type: none"> • Assumes JEA's small purchasing power will limit some of the opportunity created by removing current procurement requirements

¹ Savings are relative to the baseline financial projections, with further adjustments to slow wage and benefit growth. Savings are incorporated into the transaction model's base case

² The strategic sourcing initiative is centrally managed, but cuts across generation, T&D, water & wastewater, customer, and G&A spend areas

Source: JEA financial statements, 2018 budget, and senior team initiative development

1 Overview of water & wastewater savings

Internal Labor Non-Labor

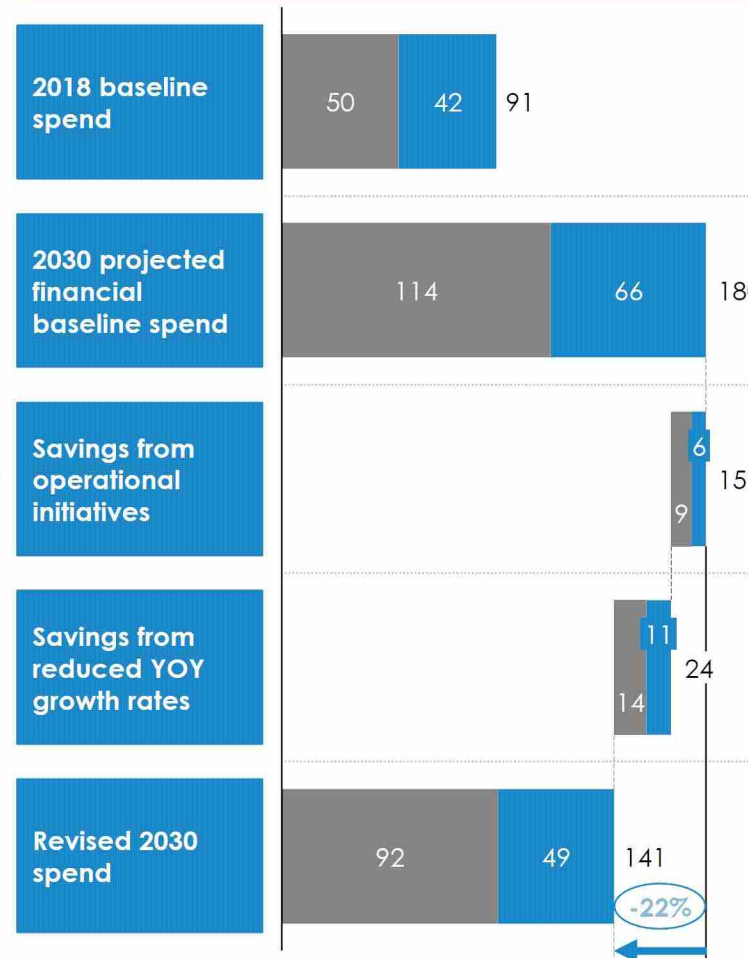
Methodology

1. Begin with the baseline financial projections projection for O&M¹
2. Phase in initiative savings through 2025
3. Apply lower projected growth for labor/benefits and materials/services relative to baseline financial projections²



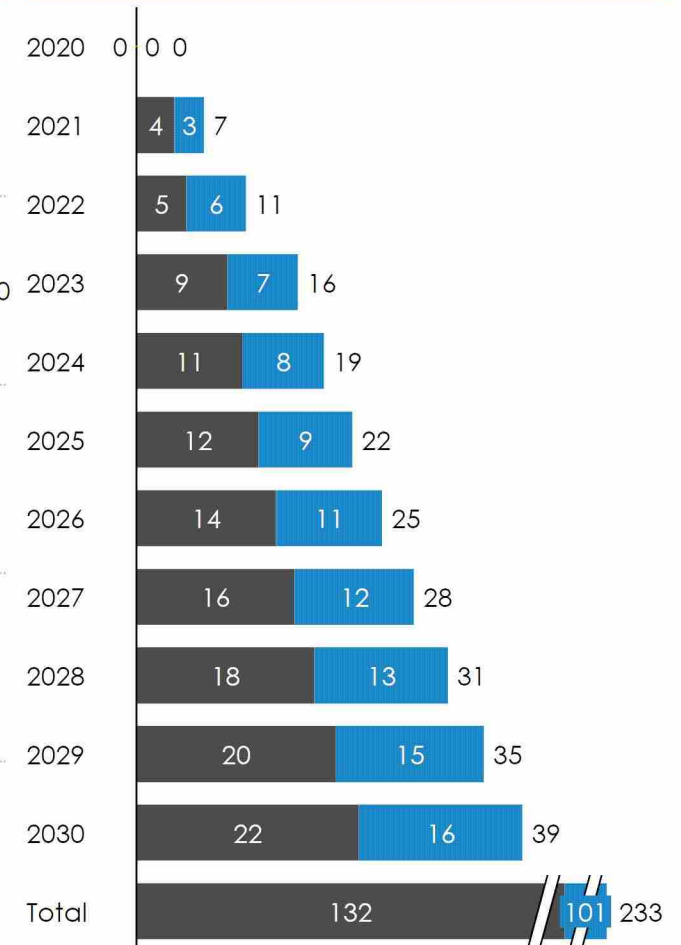
Financial impact of operational initiatives in 2030

Water Service, \$M



Annual financial impact of operational initiatives

Water Service, \$M



¹ Removes capital spend from the baseline financial projections Internal labor projection

² Baseline financial projections assumed annual increases of 5% for salaries and OT, 6% for benefits, and 4% for materials; the unconstrained strategy assumes annual increases of 3.5% for salaries, 3% for OT and benefits, and 2% for non-labor

Source: JEA financial statements, 2018 budget, and business team input

1 Customer Initiatives

xx Internal labor xx Contracts xx Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.13 Frontline operational excellence	<ul style="list-style-type: none"> • Increase frontline (e.g., call center agents, meter team) productivity by: <ul style="list-style-type: none"> – Optimizing capacity and skill-based routing, cross-skilling of agents, and improved scheduling that matches call volumes – Conducting people analytics, leveraging data to unlock further improvements to availability, average handle time, and first call resolution through directed coaching and real-time speaking guidance 	<div>28</div> <div>14</div> <div>--</div> <div>All labor and 3rd party services</div>	5%	<ul style="list-style-type: none"> • Benchmarking indicated call centers are performing in the top quartile relative to other utilities • Perspective of the Customer team is that there is limited non-digital opportunity
1.14 Digitize customer journeys	<ul style="list-style-type: none"> • Shift customers to digital self-service by creating simple, intuitive web and app-based solutions for key journeys, e.g.: <ul style="list-style-type: none"> – Bill payment – Sign-up-and-move – Experience an outage 	<div>10</div> <div>3</div> <div>1¹</div> <div>Customer service center labor, services, and postage</div>	20%	<ul style="list-style-type: none"> • Significant opportunity to shift customers to digital self-service with high potential for success • Established business models and approaches from within and beyond the utility industry • Limited progress to-date capturing the opportunity
1.15 Deploy automation	<ul style="list-style-type: none"> • Contain IVR calls by analyzing reasons for leakage and adjusting IVR flow and logic • Utilize Robotic Process Automation to eliminate repetitive tasks (e.g., complex, manual billing) and natural language processing to standardize data extraction (e.g., from recorded IVR calls) 	<div>5</div> <div>1</div> <div>--</div> <div>Revenue team (labor, services)</div>	10%	<ul style="list-style-type: none"> • Conservative assessment of activities that could be rapidly automated within the Finance group. Considerable upside potential over the 10-year window

¹ Postage

Source: JEA financial statements, 2018 budget, and senior team initiative development

1 Customer Initiatives (cont'd)

xx Internal labor xx Contracts xx Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.16 Demand management	<ul style="list-style-type: none"> Reduce need for meter reads through digital smart meters and billing quality control Enhance routing based on crew location and skillsets 	<div>4</div> <div>1</div> <div>--</div> <p>Meters team (labor, services)</p>	15%	<ul style="list-style-type: none"> Leverage same digital field force tools developed for water and T&D Significant share of truck rolls due to billing errors that can be reduced through automated solutions Additional impact from further penetration of smart meters
1.22 Strategic sourcing Led by Supply Chain ¹	<ul style="list-style-type: none"> Negotiate lower commercial rates for materials and services by: <ul style="list-style-type: none"> Introducing new providers to increase competition (e.g., staff augmentation labor during outages) Expanding supplier performance management systems and methodologies (e.g., on-time delivery, measuring time to complete jobs) Leveraging additional flexibility as a non-governmental entity (e.g., outsource engineering, flexibility to discontinue vendors without multiple notices) 	<div>--</div> <div>14</div> <div>1</div> <p>3rd party services, materials</p>	10%	<ul style="list-style-type: none"> Assumes JEA's small purchasing power will limit some of the opportunity created by removing current procurement requirements

¹ The strategic sourcing initiative is centrally managed, but cuts across generation, T&D, water & wastewater, customer, and G&A spend areas
Source: JEA financial statements, 2018 budget, and senior team initiative development

1 Overview of customer savings

Internal Labor Non-Labor

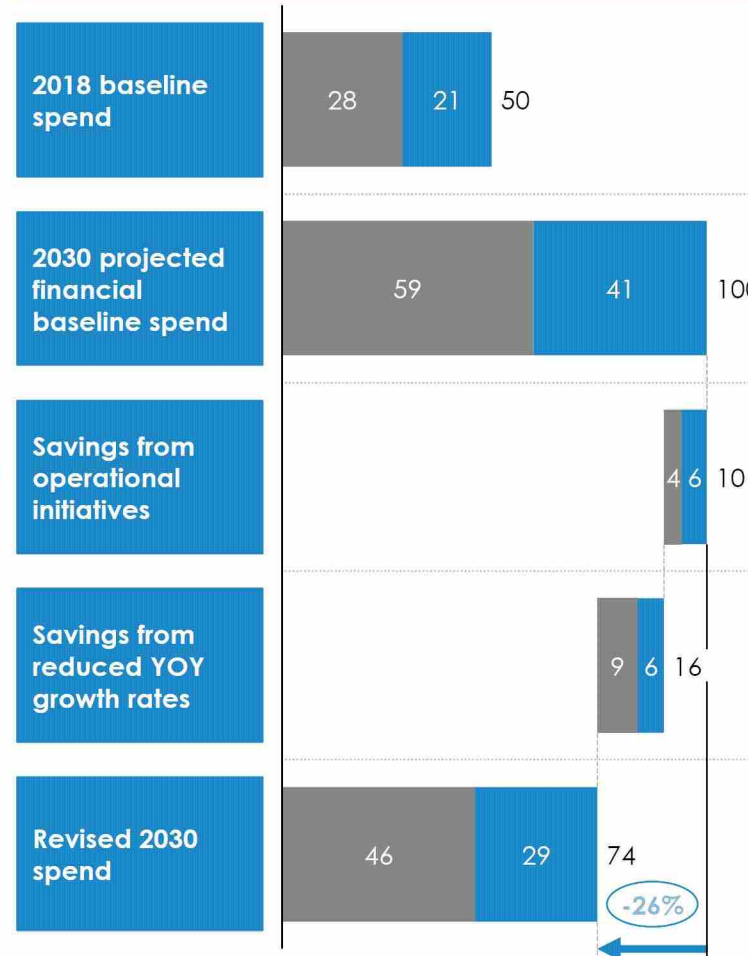
Methodology

1. Begin with the baseline financial projections projection for O&M¹
2. Phase in initiative savings through 2025
3. Apply lower projected growth for labor/benefits and materials/services relative to baseline financial projections²



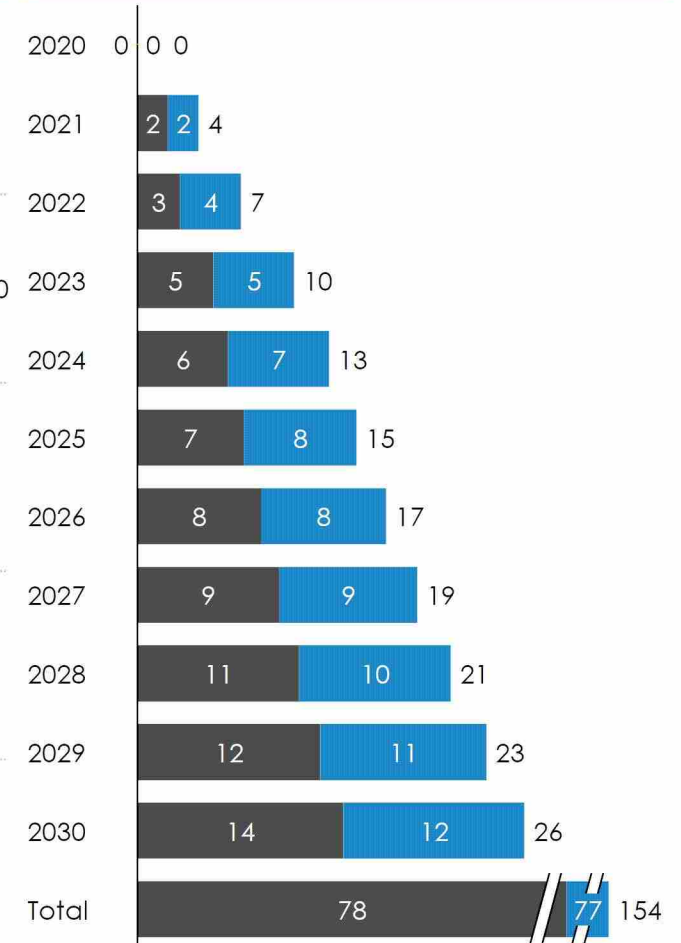
Financial impact of operational initiatives in 2030

Customer experience, \$M



Annual financial impact of operational initiatives

Customer experience, \$M



¹ Removes capital spend from the baseline financial projections Internal labor projection

² Baseline financial projections assumed annual increases of 5% for salaries and OT, 6% for benefits, and 4% for materials; the unconstrained strategy assumes annual increases of 3.5% for salaries, 3% for OT and benefits, and 2% for non-labor

Source: JEA financial statements, 2018 budget, and business team input

1 G&A Initiatives

XX Internal labor XX Contracts XX Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.17 Maximize organizational effectiveness	<ul style="list-style-type: none"> Remove organizational complexity (i.e., optimize spans and layers) and overlapping roles to ensure JEA employees are staffed and tasked to support the appropriate strategic priorities Redesign, standardize, and harmonize the way work is delivered and managed by incorporating lean best practices & performance management into daily operations 	<div>26 Compliance,</div> <div>-- Environmental</div> <div>-- Finance, HR</div>	5%	<ul style="list-style-type: none"> Opportunity to reassess roles and responsibilities under new ownership structure Limited standardization across corporate operations in current state
1.18 Deploy automation	<ul style="list-style-type: none"> Automate low-value activity through smart workflows and robotic process automation (RPA) to handle tasks such as data entry and reconciliation Create digital journeys (e.g., onboarding/offboarding) that improve employee experience while reducing costs 	<div>26 Compliance,</div> <div>-- Environmental,</div> <div>-- Finance, HR</div>	10%	<ul style="list-style-type: none"> Highly commoditized, off-the-shelf solutions with proven value case for finance and HR workflows Significant time invested in low-value workarounds to digital systems
1.19 TS service delivery transformation	<ul style="list-style-type: none"> Strategically address delivery options to: <ul style="list-style-type: none"> Become more cost competitive; Free resources from current state operations to focus on strategic priorities and establish workforce capacity, both in scale and skills; and Improve quality through engagement of select partners 	<div>18 Technology</div> <div>-- internal</div> <div>-- labor and contracted labor¹</div>	34%	<ul style="list-style-type: none"> Bottoms-up business case developed

¹ Excludes internal labor from the application development and administrative teams
Source: JEA financial statements, 2018 budget, and senior team initiative development

² Represents cumulative savings vs. the 10-year baseline financial projections baseline

1 G&A Initiatives (cont'd)

XX Internal labor XX Contracts XX Materials

Initiative	Description	2018 addressable spend baseline and description, \$M	Management Case savings target	Context for Management Case
1.20 Advanced supply chain	<ul style="list-style-type: none"> • Redesign warehouse layout to reduce unnecessary walking, unnecessary replenishment, and double-handling of items • Automate inventory level management through integration to the work management system to optimize supply levels and dispatch to work sites 	<div>13</div> <div>--</div> <div>--</div> <i>Supply chain labor</i>	15%	<ul style="list-style-type: none"> • Limited prior efforts to optimize efficiency of supply chain personnel
1.21 Demand management	<ul style="list-style-type: none"> • Reduce amount or frequency of use for materials and services (e.g., reduce fleet mileage, eliminate low-value tasks) • Optimizing scope of work to maintain focus on high-value requirements • In-source work to JEA employees 	<div>--</div> <div>20</div> <div>10</div> <i>3rd party services (excluding TS, A&G other) and materials</i>	5%	<ul style="list-style-type: none"> • Primarily service contracts; high costs of JEA G&A personnel relative to contractors limit ability to eliminate demand
1.22 Strategic sourcing Led by Supply Chain²	<ul style="list-style-type: none"> • Negotiate lower commercial rates for materials and services by: <ul style="list-style-type: none"> — Become more cost competitive; — Free resources from current state operations to focus on strategic priorities and establish workforce capacity, both in scale and skills; and — Improve quality through engagement of select partners 	<div>--</div> <div>20</div> <div>10</div> <i>3rd party services (excluding TS, A&G other) and materials</i>	15%	<ul style="list-style-type: none"> • Significant opportunity for commercial rate negotiations relative to other business units based on procurement team's assessment

¹ Savings are relative to the baseline financial projections, with further adjustments to slow wage and benefit growth. Savings are incorporated into the transaction model's base case

² The strategic sourcing initiative is centrally managed, but cuts across generation, T&D, water & wastewater, customer, and G&A spend areas

Source: JEA financial statements, 2018 budget, and senior team initiative development

1 Summary of G&A savings

Internal Labor Non-Labor

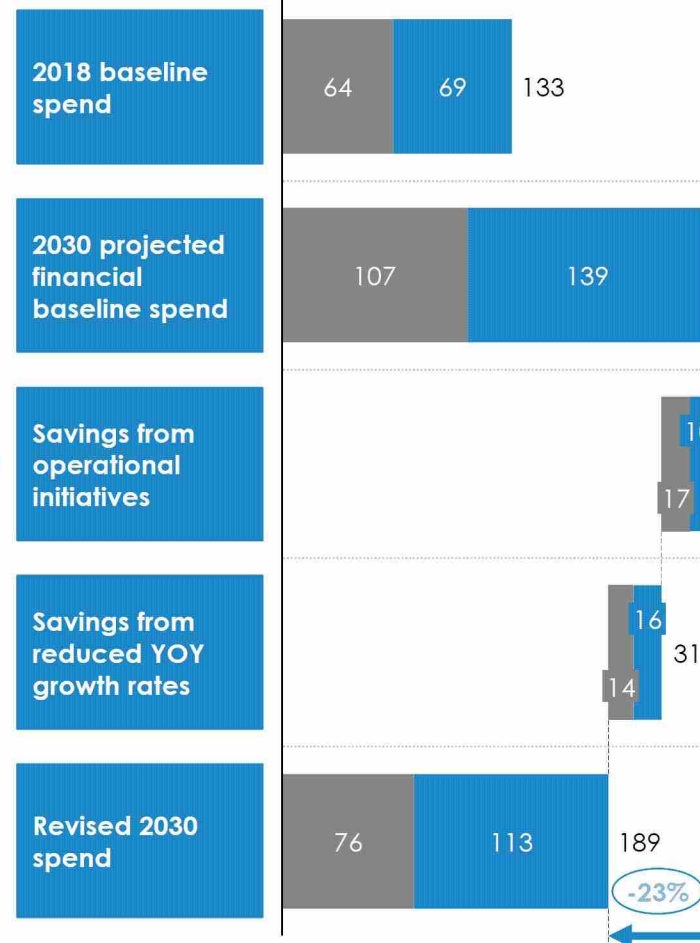
Methodology

1. Begin with the baseline financial projections projection for O&M¹
2. Phase in initiative savings through 2025
3. Apply lower projected growth for labor/benefits and materials/services relative to baseline financial projections²



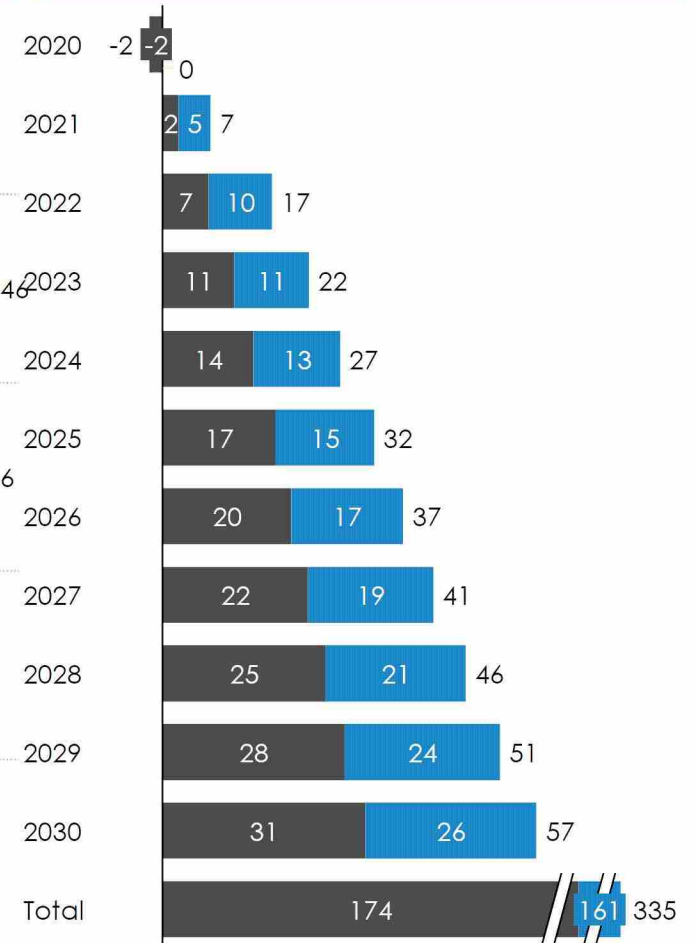
Financial impact of operational initiatives in 2030

G&A, \$M



Annual financial impact of operational initiatives

G&A, \$M



¹ Removes capital spend from the baseline financial projections Internal labor projection

² Baseline financial projections assumed annual increases of 5% for salaries and OT, 6% for benefits, and 4% for materials; the unconstrained strategy assumes annual increases of 3.5% for salaries, 3% for OT and benefits, and 2% for non-labor

Source: JEA financial statements, 2018 budget, and business team input



Sub Section 2



Strategic Capital Investments

2 A Subset of capital investment opportunities are included as part of the 2030 Strategy; entire opportunity could be substantially larger

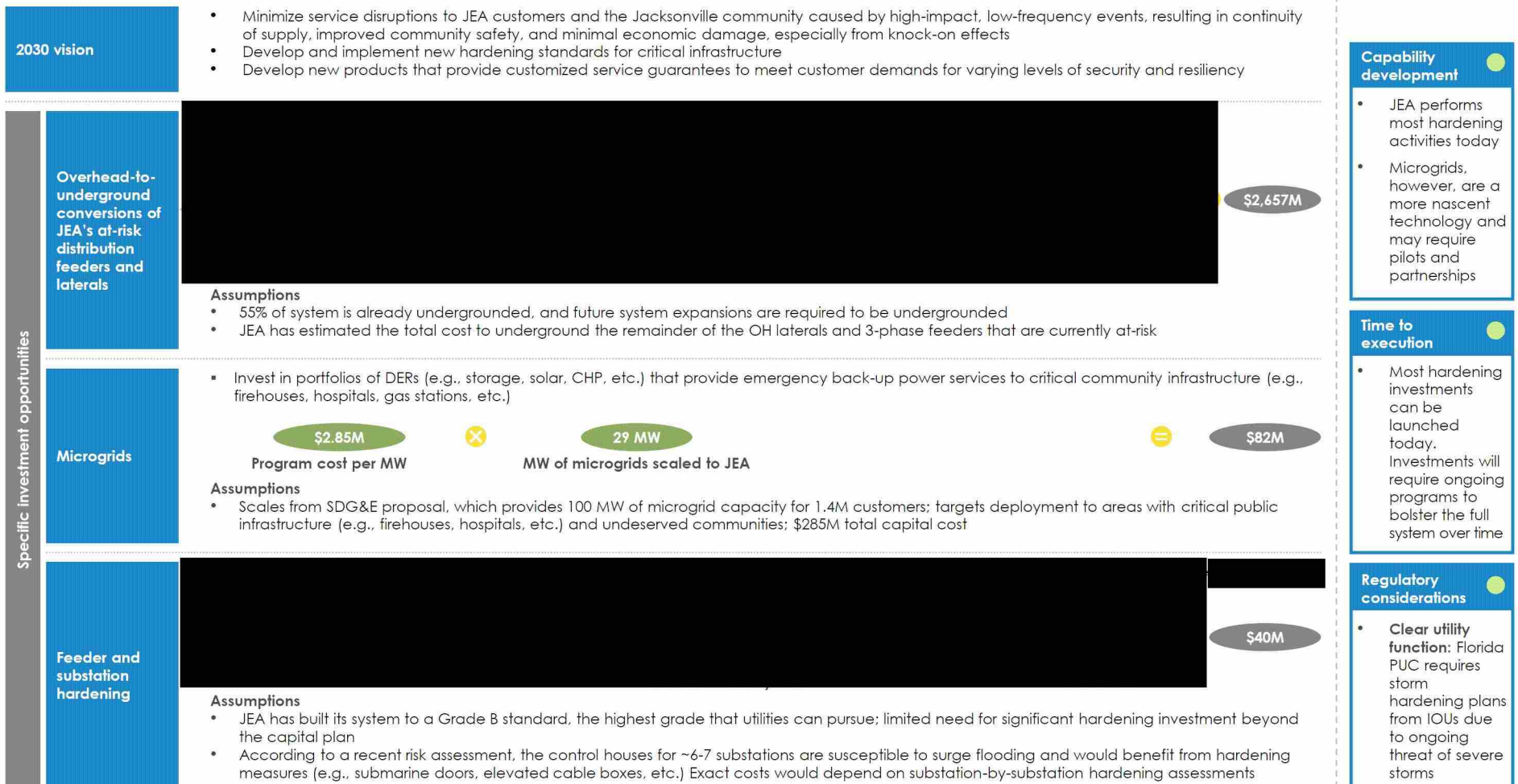
Initiative	Potential sub-investments		What's included in the Respondent Financial Model Management Case and Management Case under Scenario A
A System resiliency	Overhead-to-underground conversions of JEA's at-risk distribution feeders and laterals (all phases)	2,600	470 Grid hardening investment over 10 years, based on scaling other utilities' programmatic hardening investments to JEA's system
	Microgrids (e.g., RICE engines, batteries, controllers)	80	
	Feeder and substation hardening measures (e.g., floodgates, elevation, etc.)	40	
	Targeted water system measures (e.g., effluent pipe lining, back-up power at pump stations)	50	
B Grid flexibility	Deployment of advanced VVO (e.g., capacitor banks, regulators, etc.)	30	300 Portfolio of grid flexibility solutions to manage intermittent supply and demand from new DER (e.g., solar, electric vehicles, etc.), scaled based on investment programs announced at:
	Conversion of 4kV feeders	10	
	Deployment of line sensors onto UG feeders (e.g., FCI's)	5	
	Modernization of relay packages (e.g., electromechanical to microprocessor-based)	10	
	Expanded communications infrastructure (e.g. fiber, wireless)	190	
	Implementation of ADMS and DERMS with advanced functionalities (e.g., automated load shedding, FLISR, etc.)	85	
C Advanced asset management ⁽¹⁾	Deployment of equipment health sensors on substation transformers, battery banks, circuit breakers	30	70 Investment budget for technology investments, which need to be prioritized based on the functionalities and use cases that create the most value for JEA's system
	Structured, flexible data lake, 3-4 initial use cases to build the analytics capability, and programmatic in-house use-case development thereafter	30	
	New WMS replacement	10	
D Septic tank phase-outs	Phase-out of 65K septic tank systems, assuming that JEA is able to develop innovative solutions that cost less than a traditional gravity system	1,300	440 Capital to phase out the 22K high-priority locations with failing systems by 2030 with distributed treatment systems
E Alternative water supply	Construction of 40 MGD of treatment and purification capacity across 4 different facilities	815	360 Capital to support development of 2 of 4 facilities by 2030; supports 15 MGD of 40 MGD capacity target (to be achieved by 2035)

Note:

1. Advanced asset management investments (e.g., data and analytics platforms) can support both electric and water businesses (e.g., predictive maintenance strategies, crew routing and dispatching). A greater share of the required capital identified to date is related to the electric business (e.g., transformer monitoring solutions, new WMS), so the capital associated with advanced asset management (\$70M) has been fully allocated to the electric business in the Respondent Financial model as a simplifying assumption
2. Rounded to the nearest \$5M

2A System resiliency charter (1/2)

Low Moderate High

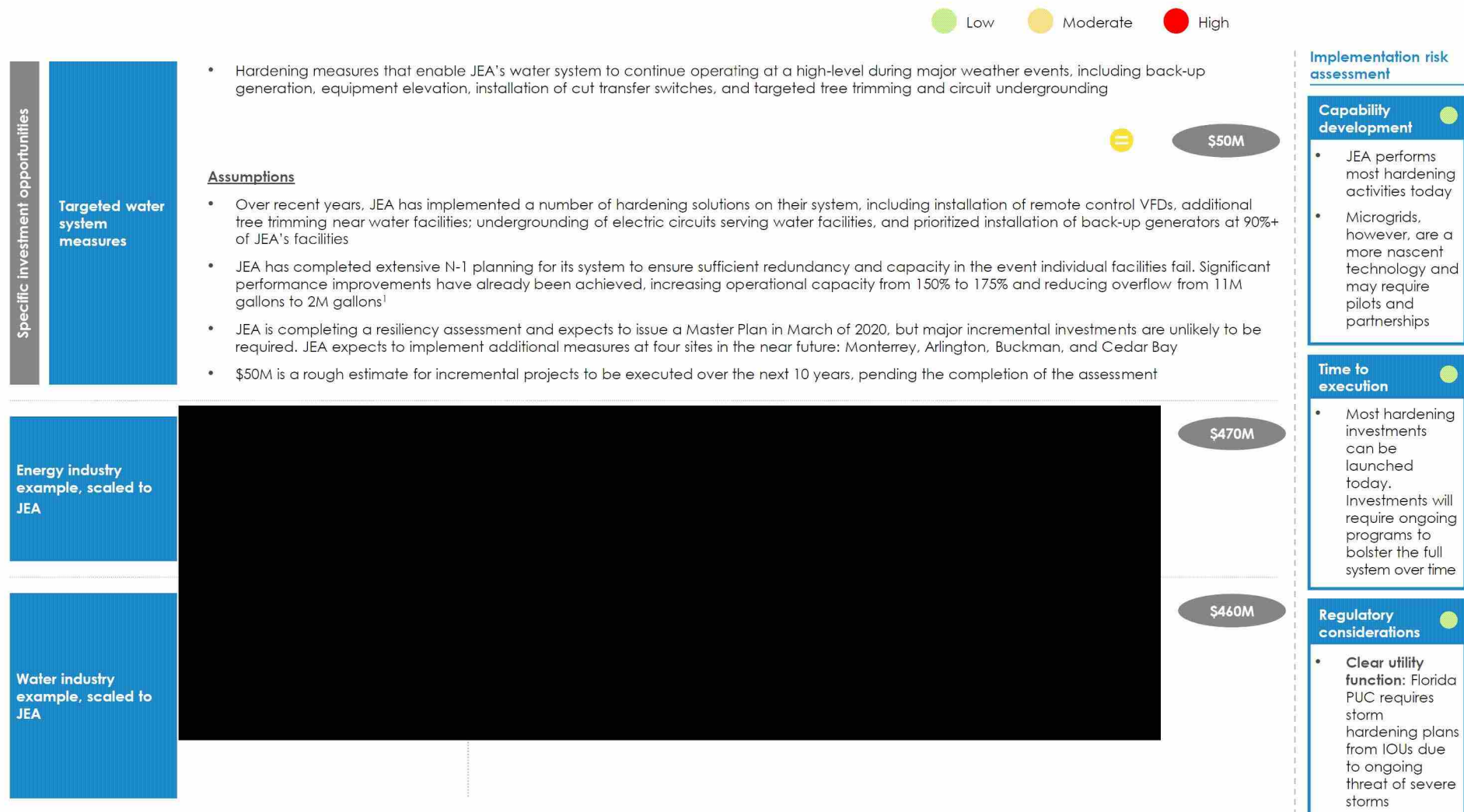


1 At risk from vegetation

2 20-year project

SOURCE: JEA system statistics, data, and analysis; SDG&E microgrid filing; team analysis; interviews

2A System resiliency charter (2/2)



¹ Performance from Hurricane Irma and Matthew, respectively

² Florida PSC filings

SOURCE: JEA system statistics, data, and analysis; preliminary engineering assessments from Jacobs; FPL company filings; Middlesex Water company filings

2B Grid flexibility charter (1/3)

Low Moderate High

2030 vision		<ul style="list-style-type: none"> JEA redesigns the grid to enable sufficient operational flexibility to accommodate new forms of distributed energy resources (e.g., rooftop solar, EVs, behind-the-meter storage, demand aggregation programs, etc.) All customers – including traditionally underserved communities – participate in benefits of DERs and other solutions as utilities lead the expansion of new energy offerings The grid accommodates large quantities of intermittent renewable resources (centralized and distributed), dynamically shifting load and generation to maintain supply/demand balance
Specific investment opportunities	Advanced voltage optimization	<ul style="list-style-type: none"> Assumptions: Assumes benefits exceeds deployment costs for 55% of feeders, \$167K cost-per-feeder; based on ComEd deployment. Assumes 1-1.5% savings from reduced purchased power requirements. VVO was deployed in 1990s, but with limited success. JEA uses regulators vs capacitor banks
	Voltage conversions and feeder capacity upgrades	<ul style="list-style-type: none"> Support greater penetration of DG solar and EVs by upgrading lines in areas with higher expected adoption to higher voltages or higher capacity ratings <p>Assumptions</p> <ul style="list-style-type: none"> Assumes elimination of remaining 4kV substations; \$187K benchmark based on prior in-territory upgrades <p>\$10M</p>
	Sensor packages (i.e. FCIs, PMUs, etc.)	<ul style="list-style-type: none"> Source real-time data on electric current and voltage levels to drive advanced distribution network connectivity models (i.e., situational awareness) , which will be supported by Communications Network <p>Assumptions: modeled off of FPL program; ~90% of OH line have FCI today. UG lines still require sensors, but these investments are funded in the capital plan, in tandem with installation of DA devices</p> <p>N/A</p>

Implementation risk assessment

Capability development

- JEA has the know-how to implement some investments today, but integrating digital investments into new operational platforms may require new skills

Time to execution

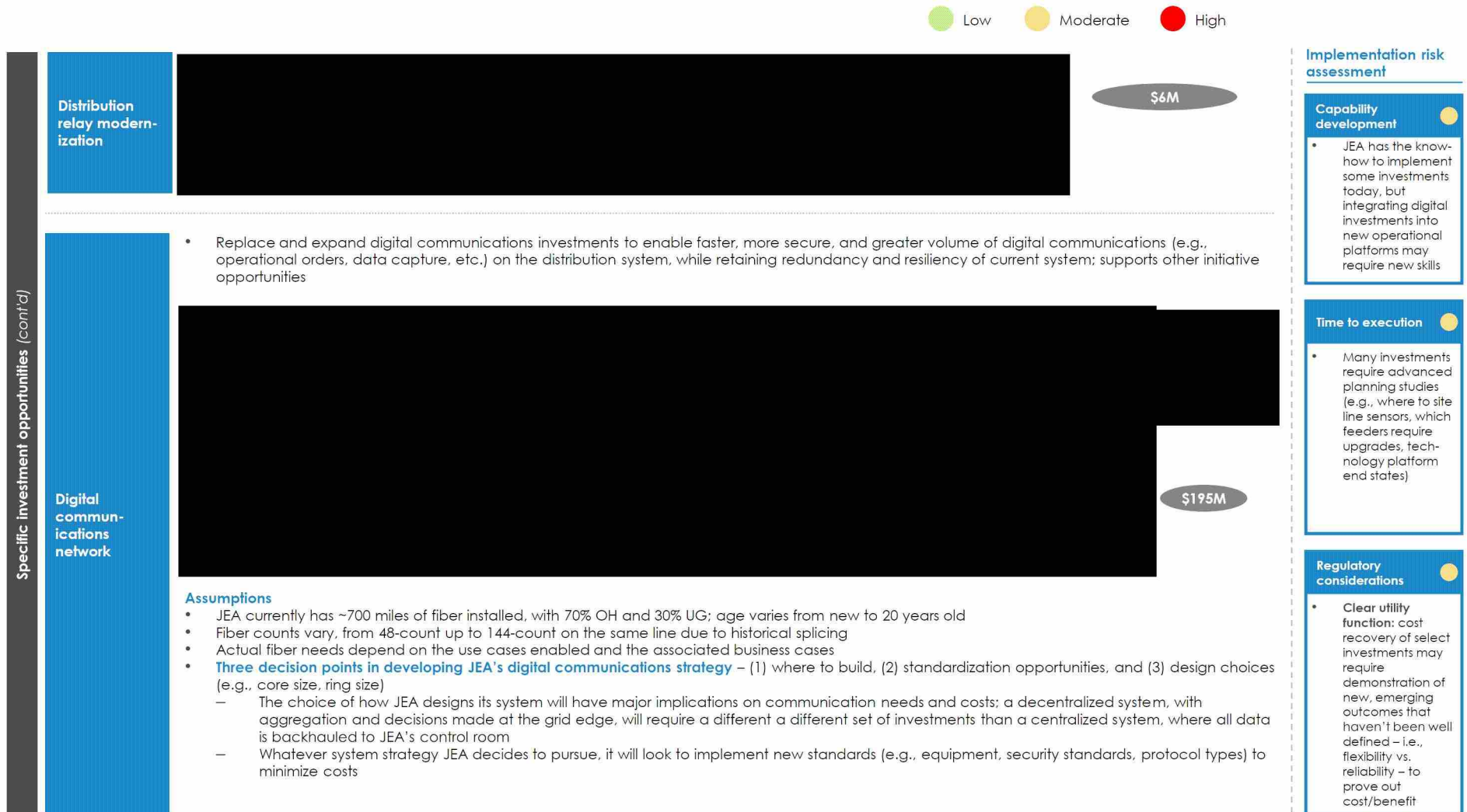
- Many investments require advanced planning studies (e.g., where to site line sensors, which feeders require upgrades, technology platform end states)

Regulatory considerations

- Clear utility function:** cost recovery of select investments may require demonstration of new, emerging outcomes that haven't been well defined – i.e., flexibility vs. reliability – to prove out cost/benefit

SOURCE: JEA system statistics, data, and analysis; ComEd VVO investment plan under FEJA; JEA interviews; utility benchmarks

2B Grid flexibility charter (2/3)



SOURCE: JEA system statistics, data, and analysis; JEA interviews; utility benchmarks

2B Grid flexibility charter (3/3)



SOURCE: JEA system statistics, data, and analysis; JEA interviews; National Grid GMP

2C Advanced asset management charter

Low Moderate High

2030 vision		<ul style="list-style-type: none">Enable JEA to achieve top quartile operational performance by deploying proven digital tools and capabilities that reduce operating expenses, improve customer experience, and enhance environmental outcomes. Investments will enable observability of infrastructure systems through the deployment of distributed, intelligent devices and advanced operational technology platforms. Insights will be derived from advanced analytic solutions.	
Specific investment opportunities	Transformer monitoring	<div></div> <div>\$27M</div> <p>Assumptions</p> <ul style="list-style-type: none">JEA is pursuing pilot programs to install equipment health sensors on large, critical transformers and substations, but the program is unfunded	Capability development <ul style="list-style-type: none">JEA has some experience with digital and advanced analytics tools today, but team size is small; need to scale talent base, which has been challenging under existing charter. JEA has frequently used external vendors as a result
	Asset health analytics platform	<ul style="list-style-type: none">Invest in a new data architecture and supporting analytical platforms to enable predictive asset health analytics, advanced leak detection, and other applicationsSample use cases include customer propensity models (e.g., e-bill, fixed bill, etc.). <div></div> <div>\$28M</div>	Time to execution <ul style="list-style-type: none">JEA will define the vision of system requirements before launching any execution activities to ensure overall architecture and approach will support the end goalsAddition of new use cases can be performed in a modular or "agile" fashion to maximize speed-to-impact<ul style="list-style-type: none">Allot 18-24+ months to develop and scale use cases across the business
Industry comparable	<div><div>gtm:</div><div>According Greentechmedia, North American utilities spent \$4B in 2017 across AML, back-office IT systems, and grid-edge customer analytics. Utilities are expected to invest an incremental \$16B through 2021 on analytics spend</div></div>		<div>N/A</div> Regulatory considerations <ul style="list-style-type: none">Clear distribution function: There are clear benefits (e.g., reduced O&M, improved performance) by applying these technologies to utility assets

SOURCE: JEA system statistics, data, and analysis; Greentechmedia

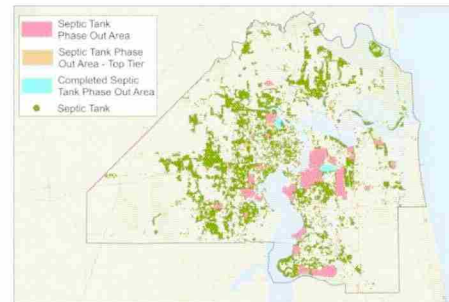
2D Septic tank phase out charter

Low Moderate High

2030 vision

- Support the City of Jacksonville's aspiration to replace all septic tanks with a cleaner, safer, and more convenient system by collaborating to install a viable alternative for all 24,000 homes in the Septic Tank Phase Out Area
- Set the city on a clear path to replace all septic tanks in Duval County

Septic tanks by area of priority



Implementation risk assessment

Capability development

- JEA has conducted considerable analysis of the septic tank challenge and has begun phasing out 1,600 priority septic tanks
- Additional personnel and/or contracted partners would be needed to address scale of full septic phaseout

Time to execution

- Significant phaseout possible within the ten year window. Expect long project planning to obtain required approvals from homeowners

Regulatory considerations

- JEA has not identified a viable alternative to gravity sewer connections for impacted septic systems
- Meeting full need would represent a significant increase in capital expenditure that could crowd out other investments or increase pressure on customer rates

Investments

JEA

- JEA will **fund and lead the phase out of all 22,000 priority septic tanks** over the next decade
 - Customers will be connected to the least-cost alternative solution (e.g., gravity system, distributed treatment)
 - Customers with distributed systems will be charged a fair rate for treatment of their waste

\$440M

City

- The City of Jacksonville will **fund the replacement of the remaining 43,000** septic tanks
- JEA will provide engineering and construction support** to ensure the city can replace all remaining tanks at the lowest price possible

\$860M


\$1300M

Total capital

SOURCE: JEA system statistics, data, and analysis

2E Alternative water supply charter

Low Moderate High

2030 vision	<ul style="list-style-type: none"> Continue to build on JEA's status as a national leader in alternative water supply and support Florida's long-term water security by providing over 40 million gallons per day of alternative water capacity for Northeast Florida by 2035. 	
Specific investment opportunities	Water purification South Grid <ul style="list-style-type: none"> Scale a 10 MGD treatment facility on the South Grid that purifies reclaimed water and returns it to the potable system Meets demand for additional potable water on the South Grid 1 MGD start-up facility will be online by 2021 and ready to scale to 10 MGD thereafter 	\$235M ¹
	Arlington East Facility South Grid <ul style="list-style-type: none"> Expand the capabilities at Arlington East to fully convert remaining reclaimed to potable re-use Expand the South Grid's capacity by 10 MGD Targeted for implementation after the water purification plant and before North Grid enhancements 	\$125M ¹
	Southwest Water Reclamation North Grid <ul style="list-style-type: none"> Modify the Southwest wastewater facility, to produce potable re-use; the SW plant currently discharges all treated water into the artery of the St. Johns River system Add a river crossing and additional transmission to connect with the North Grid and expand North Grid capacity by 10 MGD 	\$230M ¹
	Powered & Potable North Grid <ul style="list-style-type: none"> Utilize water from the District II Wastewater Treatment Facility to cool the new Greenland CCGT facility, then purify the outflow to potable standards Expand the North Grid's capacity by 10 MGD 	\$225M ¹
Industry example	<div>  <p>Develop 9.6 MGD of alternative supplies in Monterrey, CA through investments in a desalination plant, expansion of an aquifer storage and recovery system, and upgrades to the groundwater replenishment system</p> </div> <div> <div>\$95M Desalination plant</div> <div>+</div> <div>\$131M Pipeline facilities</div> <div>+</div> <div>\$51M Subsurface intake return facilities</div> <div>=</div> <div>\$277M Total project cost</div> </div>	Implementation risk assessment <div> Capability development <ul style="list-style-type: none"> Design and build would be conducted by external partners JEA will develop in-house operating experience with the 1 MGD start-up facility </div> <div> Time to execution <ul style="list-style-type: none"> Full implementation possible by 2035 given accelerated capital deployment </div> <div> Regulatory considerations <ul style="list-style-type: none"> Significant precedent across Florida for all opportunity areas </div>

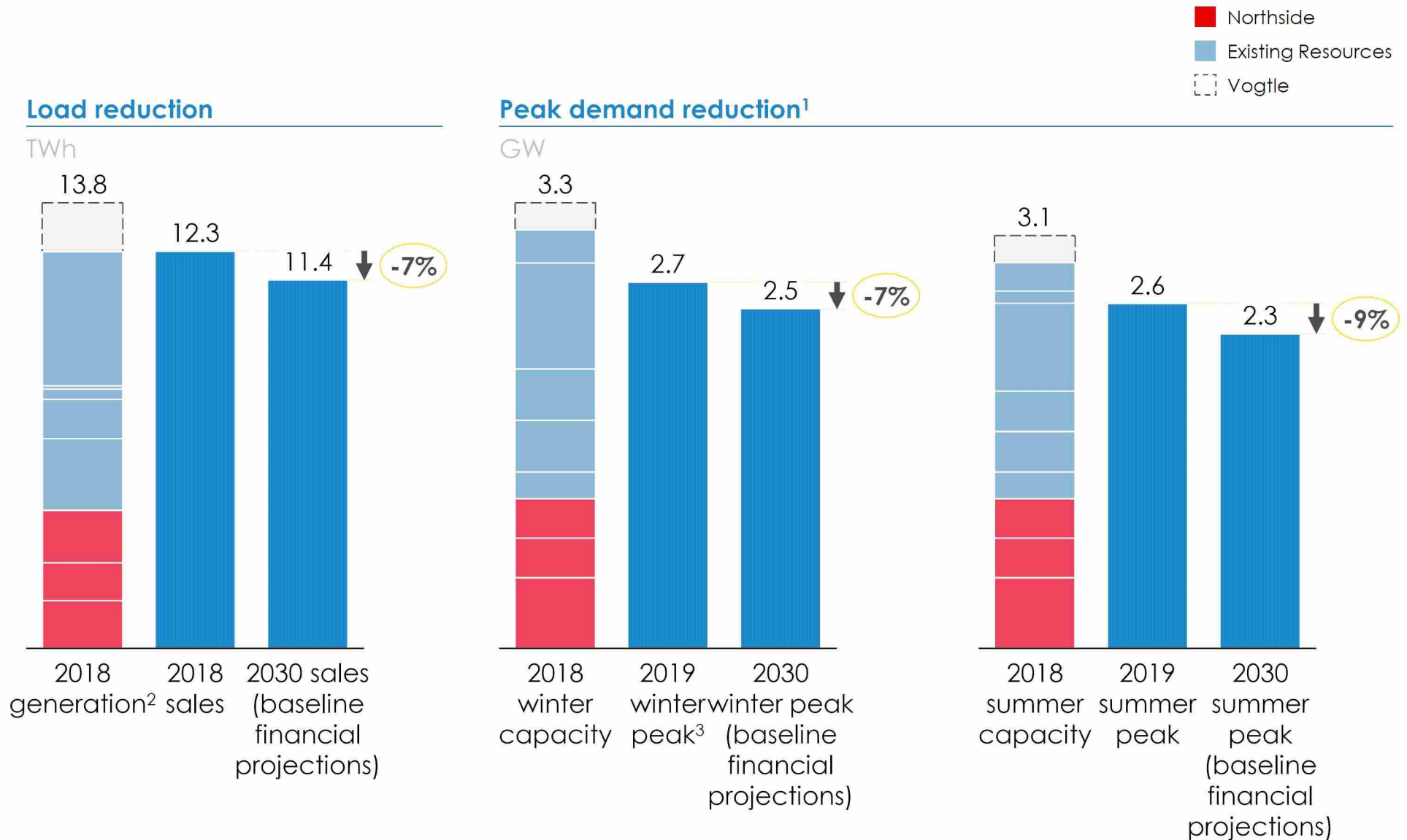
¹ Sizing represents capital opportunity through 2035

SOURCE: JEA; Monterrey Peninsula Water Supply Project

2 Generation portfolio –about the supporting analysis

- The following pages contain strategic analysis JEA completed through its evaluation of whether to replace the Northside generation units with renewables
 - The analyses compare the cost of operating the Northside generation units (as per the baseline financial projections) to the cost of building and operating renewables portfolios under different scenarios
- These are strategic analyses, not operational analyses; JEA will complete additional analysis to convert its strategic decision into a executable implementation plan

2 The 10-year site plan energy and peak demand forecasts were scaled downward to be consistent with the baseline sales forecast



¹ Projected 2030 summer and winter peaks in the Ten Year Site Plan ("TYSP") have been lowered proportionate to the ratio of sales in the baseline financial projections to Sales in the TYSP

² Includes system auxiliary load

³ 2019 peak shown here as 2018 appeared to be an outlier

SOURCE: CEMS, EIA, NREL, IRENA, JEA analysis

2 JEA considered three potential generation pathways that leverage EE/DR and gas + renewables to replace Northside

3 potential generation pathways

(assumes all demand reduction goes to reducing generation at NS)



Current Plan: replace NS 3 in 2025 with 500 MW CCGT; maintain NS 1+2



Gas and renewables: replace NS 3 in 2025 with 500 MW CCGT, replace NS 1 + 2 in 2026 with ~400 MW solar + storage, ~400 MW other renewables



Distributed resources: replace NS 3 in 2025 with DER portfolio and 200 MW CCGT PPA; replace NS 1 + 2 with ~600 MW solar + storage, ~600 MW other renewables in 2026



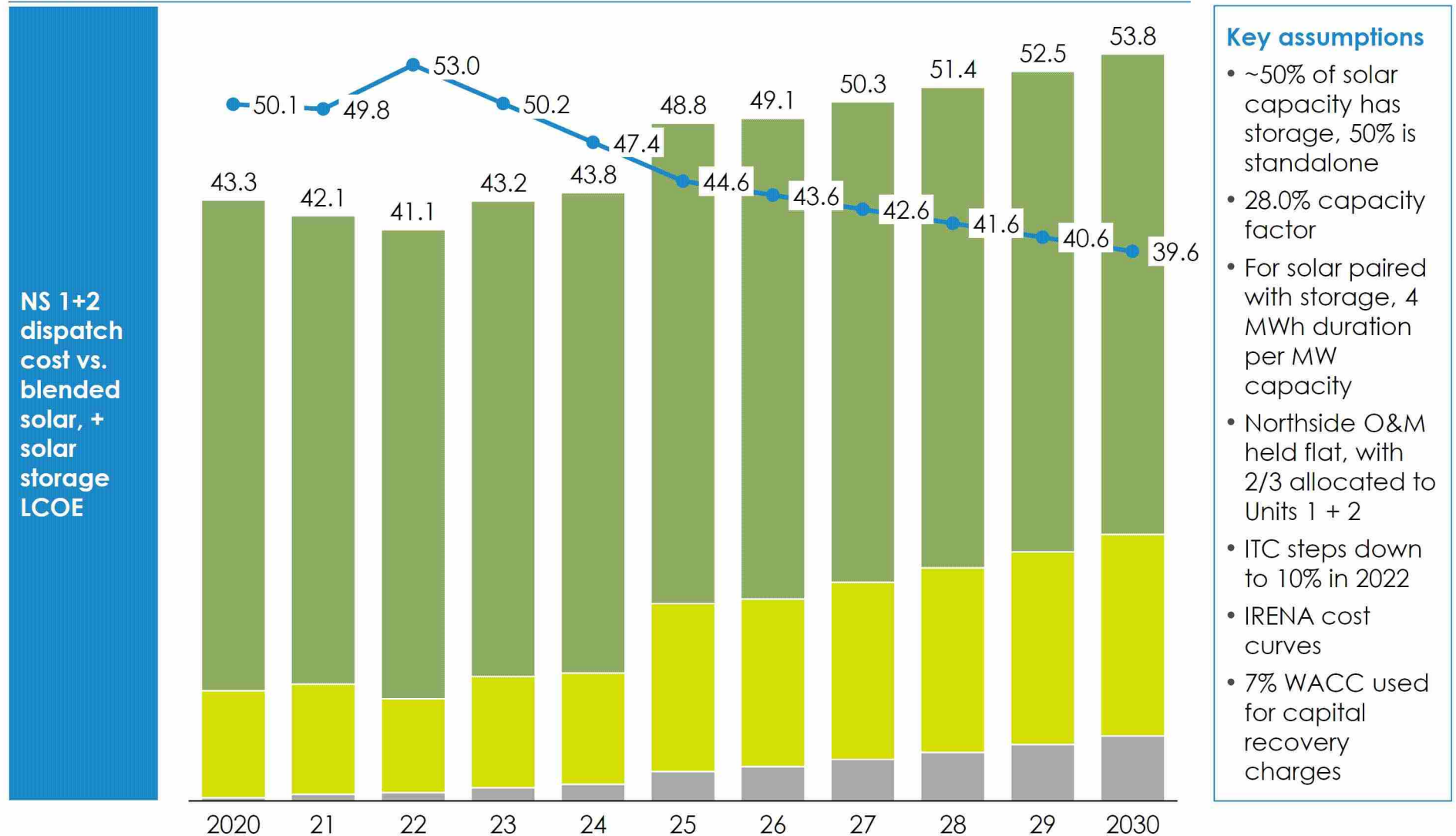
2030 Generation 2030 sales 2030 Winter Capacity 2030 Winter Peak 2030 Summer Capacity 2030 Summer Peak

¹ Owned renewable generation capacity, i.e. excludes PPAs
SOURCE: CEMS, EIA, NREL, IRENA, JEA analysis

Solar plus storage becomes affordable relative to the dispatch cost of Northside in 2025

● Blended Solar, Solar + Storage LCOE
 ■ Fuel \$ / MWh
 ■ O&M \$ / MWh
 ■ Capital recovery \$ / MWh

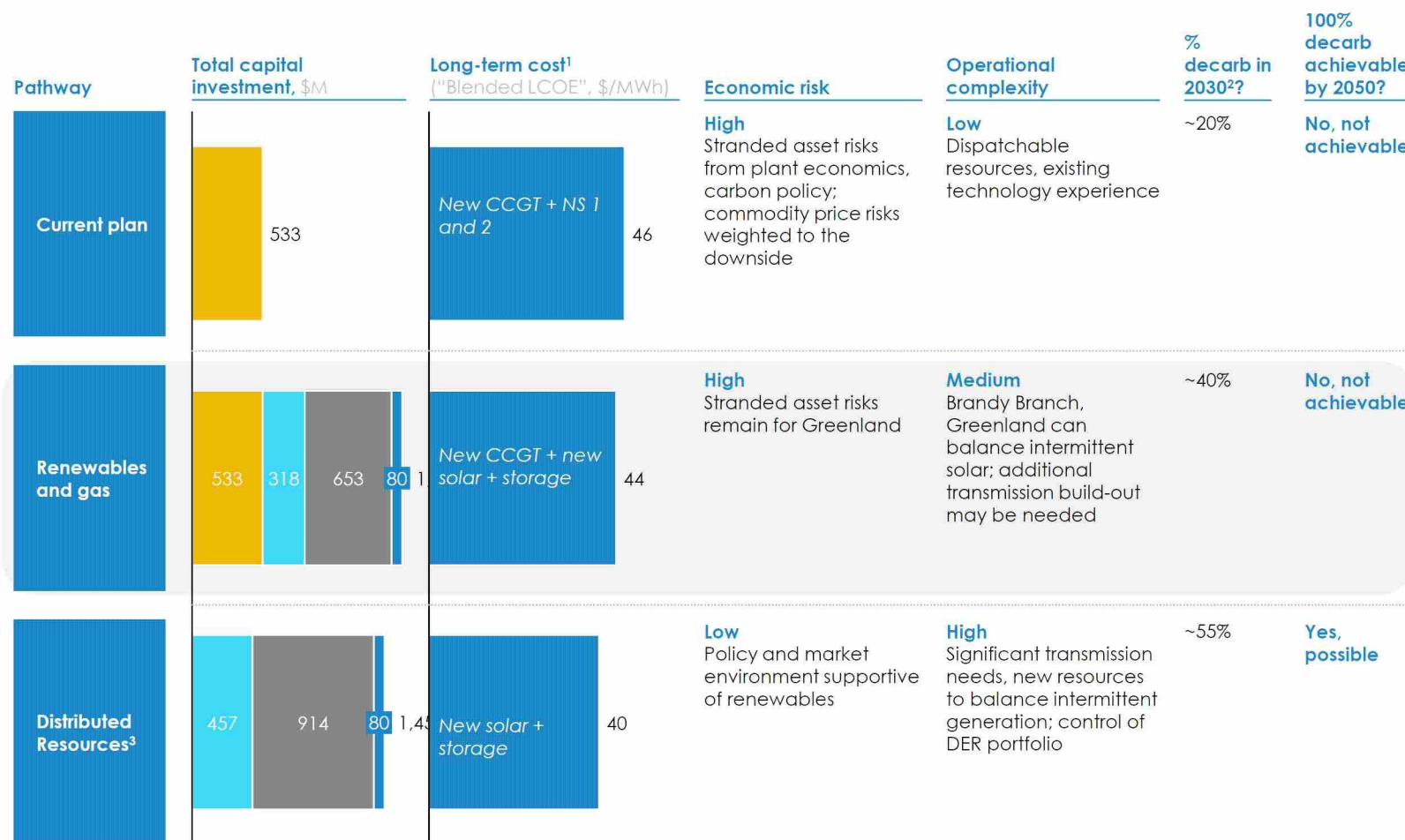
Forecast LCOE by technology, \$ / MWh



SOURCE: IRENA, NREL, JEA, Team Analysis

2 Pathway 3 has highest operational complexity but lowest long-term costs and stranded asset risks

■ Current option selected for 2030 strategy
■ CCGT
■ Other renewables
■ Solar + Storage
■ Make-ready⁴



- JEA's current plan is Greenland + renewables and plans are moving forward for Greenland
- JEA will continue to explore whether it is feasible and cost-effective to use a combination of demand management, distributed energy resources, a small-scale gas PPA, and utility-scale solar storage to replace Northside without building a new CCGT plant

¹ Theoretical long-term average cost; does not reflect Day 1 bill impact

² Relative to 2018; assumes Vogtle comes online at a 90% CF

³ Capital and LCOE only reflect new utility-scale resources; DER portfolio costs are not included

⁴ \$50M assumed to decommission Northside and \$30M to install a Volt-VAR solution to ensure grid stability with additional penetration of renewables

SOURCE: CEMS, EIA, JEA, NREL



Sub Section 3

Core Growth Opportunities

Disclaimer: any and all earnings figures included in this section are estimates and sensitive to many modeling assumptions (e.g., year capital deployed, capital structure, rates, ROE, etc.)

3 Core growth initiatives were evaluated under three scenarios

Geography

Business model

Market trajectory

Base case scenario	Catalyzed market scenario	Underserved markets beyond Jax - incremental
<ul style="list-style-type: none"> • Within Jacksonville 	<ul style="list-style-type: none"> • Within Jacksonville 	<ul style="list-style-type: none"> • Outside of Jacksonville • Includes Orlando, Tallahassee, and Gainesville municipal utilities
<ul style="list-style-type: none"> • JEA will execute initiatives within these markets – unregulated or unregulated 	<ul style="list-style-type: none"> • JEA will execute initiatives within these markets – unregulated or unregulated 	<ul style="list-style-type: none"> • Assumes JEA will earn a margin on unregulated services provided to the municipalities, the municipal utilities, and their customers
<ul style="list-style-type: none"> • Uses Management Response forecasts, assuming no additional market growth 	<ul style="list-style-type: none"> • Assumes JEA can grow the market beyond Management Response forecasts driven by the 2030 growth initiatives 	<ul style="list-style-type: none"> • Assumes market forecasts similar to Jacksonville scaled to muni utility customer count (e.g., % EVs on road, DG solar deployed) • JEA will leverage existing municipal relationships to boost markets by the same proportion as in Jacksonville

3 By pursuing core growth businesses, JEA will “catalyze” uptake in Jacksonville beyond base forecasts

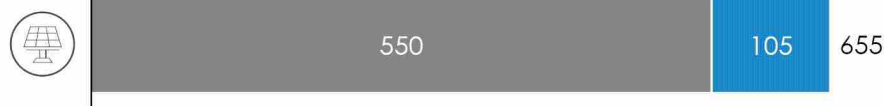
STRATEGIC INITIATIVES – CORE GROWTH OPPORTUNITIES

■ Base market ■ Catalyzed market

Base and “catalyzed” markets through 2030, by relevant metric

How JEA will support and catalyze the growth of the Jacksonville market

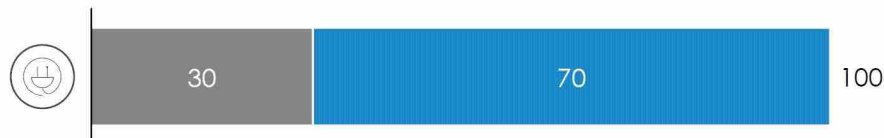
Cumulative residential and C&I DG solar and storage adoption, 2020-30 MW



Utility-managed DG programs will spur customers to **adopt DG at twice the pre-parity uptake rate, with a modest increase once solar reaches parity**

- Utility-run residential DG storage installation and management services – in tandem with education and awareness - drives adoption of DG products, particularly given customers' resiliency concerns
- C&I solar and storage installation supports customers' sustainability goals through a known and trusted entity

Cumulative EV penetration, 2020-30 light duty vehicles, #K



JEA will broaden its vehicle and charger incentive program while building out robust public and private EV charging infrastructure, driving the EV adoption rate **to match national levels**

- Vehicle and charger incentives alleviate the cost burden of EV ownership
- Public chargers reduce customers' range anxiety, while private charger installation provided by a trusted utility relieves the onus of finding a third-party contractor

Cumulative Residential and Commercial spend on EE appliances, \$M



JEA will provide customers incentives that earn a utility return on energy saved, **supporting the existing market** and continuing to build out EE public lighting

- In addition to energy savings, these initiatives will provide ancillary community benefits (e.g., greater public safety, affordability)

SOURCE: JEA baseline financial projections; EIA

3 Core growth businesses – earnings under each scenario

 Excluded from "utility growth business" scenario and included in "adjacent growth business" scenario

 X Case included in final strategy
 X Case excluded from final strategy

Cumulative earnings, 2020-30

Initiative	Management Case	Base case	Catalyzed market scenario	Underserved markets beyond Jax - incremental
3.1 Expand incentives for electric vehicles and chargers	\$5	\$2	\$5	\$-
3.2 Build out public DC FAST and L2 charging throughout Jacksonville	\$58	\$29	\$58	\$25
3.3 Own and operate bus charging infrastructure for Jacksonville's city and public school fleets	\$19	\$19	\$19	\$8
3.4 Build an L2 home charger installation business	<\$1	\$0	\$0	\$0
3.5 Electrify the Port of Jacksonville	\$6	\$6	\$6	\$-
3.6 Install, maintain and dispatch residential storage	\$7	\$6	\$7	\$-
3.7 Build a C&I DG solar design, development, and installation business	\$12	\$3	\$4	\$43
3.8 Install "smart", efficient streetlights	\$12	\$12	\$12	\$-
TOTAL	\$181	\$136	\$173	\$43

SOURCE: Team analysis

3.1 Expand incentives for electric vehicles and chargers

- Clear existing capability / precedent
- Requires capability building or partnership / lacks precedent

Opportunity summary



Business model

- JEA will derive **\$5M in regulated earnings from the \$15M in Capex deployed** to provide vehicle and charger incentives to customers, as well as to administer the overall program
- This program with the other EV market boosting programs will **drive 72GWh of load growth** in 2030 by supporting EV market growth throughout Jacksonville beyond the baseline financial projections
- **JEA's customer and billing relationships** make JEA the most effective platform to provide customers broad, equitable programs that alleviate cost concerns



Market/regulatory precedent

- Some examples exist of utilities earning on charging infrastructure rebates, while rate-base rejections from regulators have also occurred



- Duke has announced a **\$76M EV and charging infrastructure pilot program** in North Carolina (pending approval)
- \$11M of this program is dedicated to rebates for residential EVs, fleet EVs, and charging infrastructure, as well as education and outreach to drive adoption



- An approved BGE program provides **rebates on L2 chargers only**
 - \$300 rebate for up to 1,000 residential customers
 - \$25K rebate for up to 700 multi-family property owners



Earnings potential

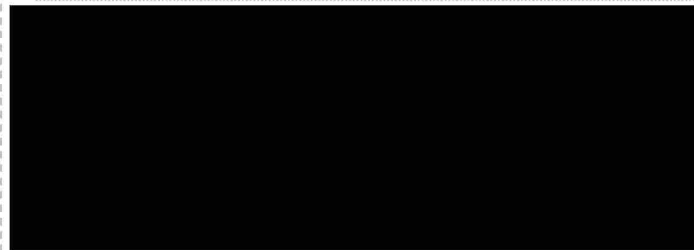


Timing considerations

2020

-

2025



\$5M

Return on
regulated
capital, through
2030



Capabilities required

- Robust Marketing & Sales organization that supports customer sign-up for rebates
- Resourced regulatory team with the ability to make a compelling case to the regulator despite mixed success with approvals from other utilities



What you need to believe

- Regulatory approval for content and scale of program to be able to earn regulated return on capital
- EV forecast will be boosted by this initiative and other EV related initiatives to drive EV penetration in Jacksonville to national levels
- Customers will participate in the program if it is made available to them

¹ Assumes EV penetration catalyzed market case due to market stimulation from transport electrification initiatives
SOURCE: Company website and press information

3.1 Expand incentives for electric vehicles and chargers

X Case included in final strategy
X Case excluded from final strategy

Inputs	Units	Base case	Catalyzed market scenario - national EV penetration rates	Underserved markets outside territory ¹
Program years ²	year	2020-2025	2020-2025	
Incremental EVs on the road during program duration, based on Management Response forecast	# EVs	~10.7K	~21.3K	
JEA capital deployed	\$/EV	\$7.6M	\$15.3M	Not applicable
Return on regulated capital, through 2030	\$	\$2.4M	\$4.9M	

¹ Includes Orlando, Tallahassee, and Gainesville municipal utilities;

rate base a program to stimulate EV deployment significant cost reduction become primary driver for deployment rather than programs and incentives

² Includes Florida market minus FPL, Duke Energy FL, Jacksonville, and 3 neighboring municipal utilities

³ Assumes JEA can

SOURCE: Duke NC Electric Transportation Pilot filing to the NC Utilities Commission (March 2019); EIA; FPL SEC filings; External experts; Team analysis

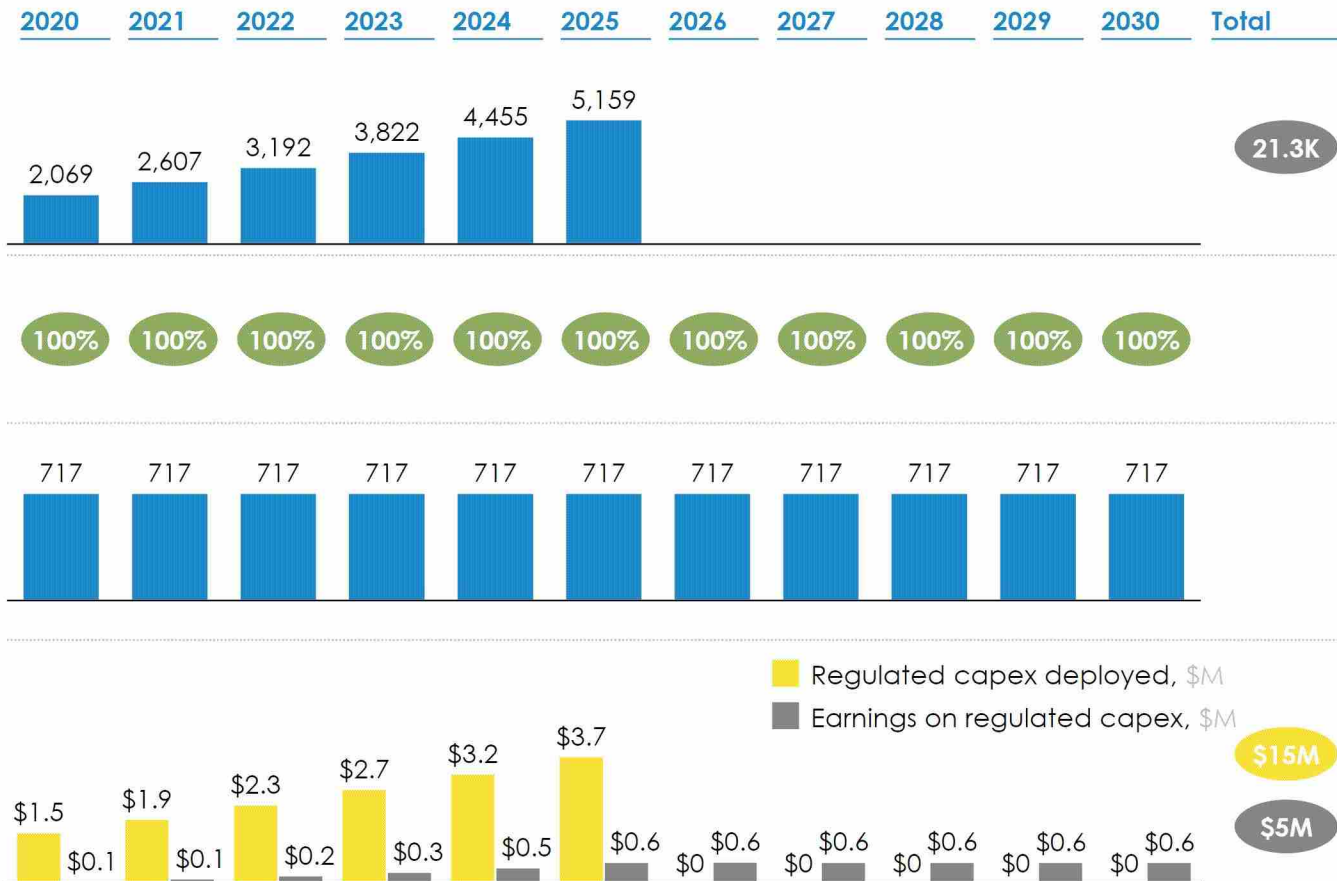
3.1 Expand incentives for electric vehicles and chargers

New EVs on the road during program year, national penetration rate scenario

Share of new EVs incented by utility

\$/EV in program, based on Duke NC program proxy

Capex deployed and regulated earnings



Key assumptions:

- ROE: 10.5%
- Debt/equity split: 50%/50%
- Cost of debt: 5%
- Tax rate: ~20%

SOURCE: Team analysis

PROJECT SCAMPI

Build out public DC FAST and L2 charging throughout Jacksonville

Opportunity summary



Business model

- JEA will derive **\$58M in regulated earnings from the \$302M in Capex deployed** to install and maintain public L2 and DC Fast chargers
- This program with the other EV market boosting programs will **drive 72GWh of load growth** in 2030 by supporting EV market growth throughout Jacksonville beyond the baseline financial projections
- With access to capital, **JEA can coordinate and build out the large-scale infrastructure required** to support the Jacksonville EV market
- Expansive, utility-run deployment can alleviate customers' range anxiety, supporting EV adoption within Jacksonville and the region



Market/regulatory precedent

- Some examples exist of utilities earning on charging infrastructure, while rate-base rejections from regulators have also occurred



- Duke has announced a **\$76M EV and charging infrastructure pilot program** in North Carolina (pending approval)
 - Includes **~\$37M over 3 years for utility** owned and operated charging infrastructure deployment



- BGE will **launch its EV charging network in Maryland by fall 2019**, including 500 owned Level 2 smart chargers or DC fast chargers
- BGE was approved to build out infrastructure for 16% of the expected EV fleet on the road in 2030
- BGE's charging rates will be comparable to other public** charging options



- Chargepoint has an **integrated portfolio of charging hardware, cloud services, and support offerings** for EV owners and lessees

1 Assumes EV penetration boost case due to market stimulation from transport electrification initiatives – full calculation in appendix

2 Assumes that the utility will have an 85% share of chargers deployed in 2020 dropping to 60% in 2030 for DCFC and 65% share dropping to 45% from 2020 - 2030 for L2 chargers as the charging market becomes more saturated with higher EV penetration

SOURCE: Company website and press information

- Clear existing capability / precedent
- Requires capability building or partnership / lacks precedent



Earnings potential



Timing considerations

2021

-

2030



Earnings breakout¹

\$58M

Return on
regulated capital,
through 2030



What it takes to succeed

- Ability to deploy more complicated FAST DC charging quickly and in line with customer need, through in-house installation or through contractor management
- Servicing capabilities or contractor management for deployed infrastructure
- Advanced geospatial analytics to plan optimal charger placement
- Sophisticated regulatory operation to get approval for charging capex and EV rates



What you need to believe

- Will obtain regulatory approval for content and scale of program to be able to earn regulated return on capital and to establish EV charging rates
- EV forecast will be boosted by this initiative and other EV related initiatives to drive EV penetration in Jacksonville to national levels
- JEA will capture 85% to 60% of DCFC and 65% to 45% of L2 over the course of 10 years

3.2 Build out public DC FAST and L2 charging throughout Jacksonville



Case included in final strategy



Case excluded from final strategy

Inputs	Units	Base case	Catalyzed market scenario - National EV penetration rates	Underserved markets outside territory ¹
Program years	year	2021-2030	2021-2030	2023-2030
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Earnings on regulated capital, through 2030	\$M	\$28.7M	\$57.9	
Unregulated earnings, through 2030	\$M			\$24.5

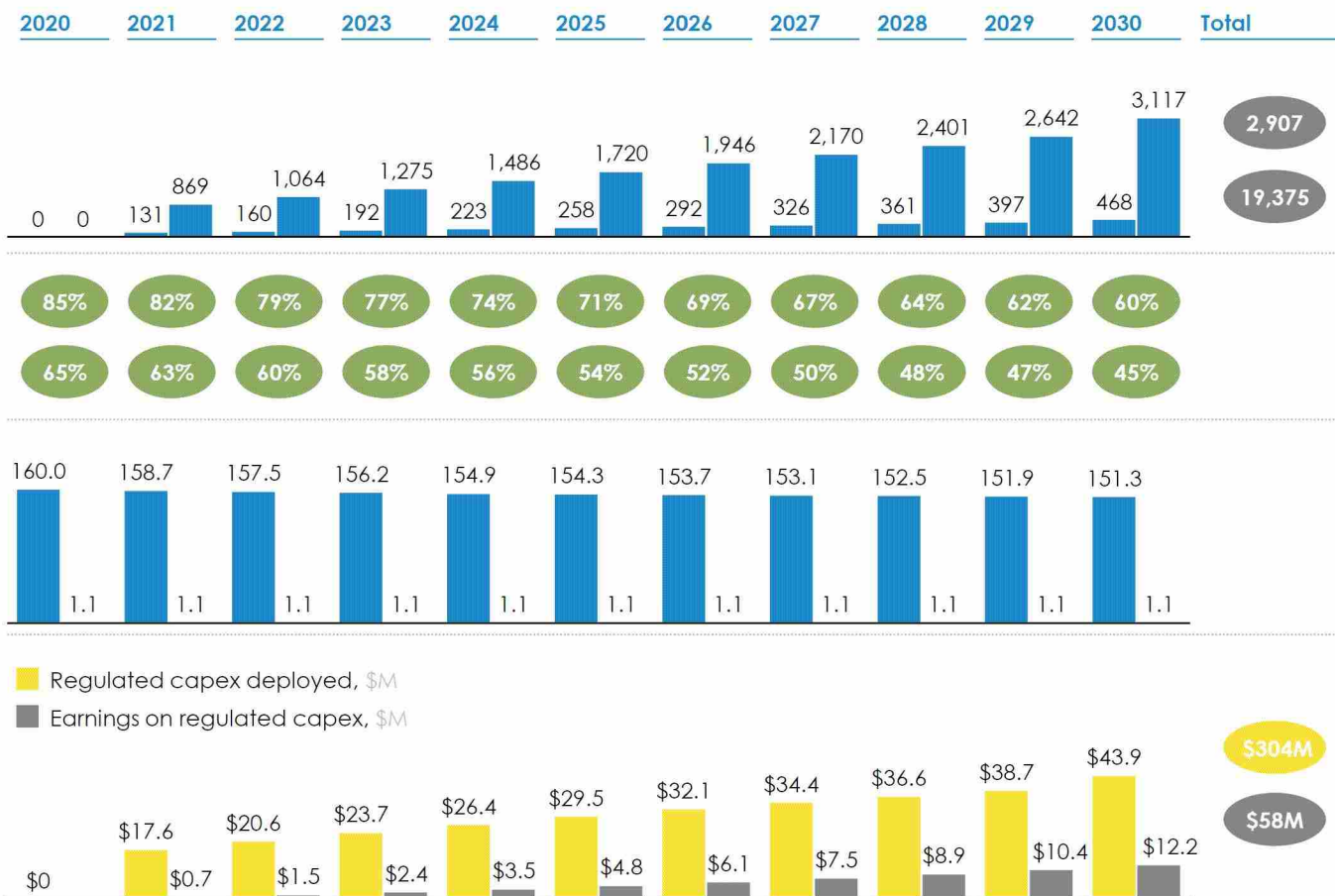
Build out public DC FAST and L2 charging throughout Jacksonville

New chargers required during program years, based on nationally normalized EV penetration (DCFC/L2)

Share of new charger deployed by utility (DCFC/L2)

\$k/charger (DCFC/L2)

Capex deployed and regulated earnings



Key assumptions:

- ROE: 10.5%
- Debt/equity split: 50%/50%
- Cost of debt: 5%
- Tax rate: ~20%

SOURCE: Team analysis

Own and operate bus charging infrastructure for Jacksonville's city and public school bus fleets

- Clear existing capability / precedent
- Requires capability building or partnership / lacks precedent

Opportunity summary



Business model

- JEA will derive **\$19M in regulated earnings from the \$95M in Capex deployed** to design, install, and maintain municipal electric school buses and public transit bus charging infrastructure in partnership with the City and Jacksonville Public Schools
- This program will **drive 1.2GWh of load growth** per year² and provide an average **savings to the city of ~\$25K per year** per bus on fuel costs
- JEA is well situated to **help the City of Jacksonville "lead by example"**, facilitating the transition of municipal and school buses. In partnership with a bus provider, JEA will assist with fleet procurement and provide infrastructure installation and management services



Market/regulatory precedent

- Limited proven examples exist - ability to earn off of programs unclear



- Duke has announced a **\$76M EV and charging infrastructure pilot program** in North Carolina (pending approval)
 - **\$27M of this program** is dedicated to public school and public transportation bus electrification



- Southern California Edison (SCE) rolled out the **\$356M Charge Ready Transport program** designed to advance the electrification of medium- and heavy-duty vehicles by installing infrastructure to support charging stations at no charge
- Rebates for charging station equipment will also be available to some customers as well, including transit agencies and school bus operators
- The program, which was approved by CA regulators in 2018, will fund installations at **870 commercial customer sites over a five-year period**, which the utility anticipates will **support at least 8,490 fleet vehicles**

¹ Assumes 50% of 220 buses will be electrified and that 1 charger is needed for every electric bus population density (2MWh/bus)

SOURCE: Company website and press information; Columbia University



Earnings potential



Timing considerations

2023

-

2030



What it takes to succeed

- Ability to deploy bus charging quickly and in line with city needs, through in-house installation or through contractor management
- Servicing capabilities or contractor management for deployed charging infrastructure
- Advanced geospatial analytics to plan optimal bus charger placement
- Sophisticated regulatory operation to make the case for the buildout of the infrastructure buildout



What you need to believe

- The city will select JEA to partner with for the large-scale Capex buildout for electric buses
- Will obtain regulatory approval for content and scale of program to be able to earn regulated return on capital and to establish electric bus charging rates
- The city will choose to deploy 50% of school and transit bus fleets

² Based on analysis on New York city bus electrification (55MWh/bus) scaled to Jacksonville based on

Own and operate bus charging infrastructure for Jacksonville's city and public school fleets



Case included in final strategy

Case excluded from final strategy

Inputs	Units	Base case	Catalyzed market scenario	Underserved markets outside territory ¹
Program years	year	2023-2030		2025-2030
School buses in Duval County	# buses	850		860
Number of JTA transit buses	# buses	220		223
School bus charging Capex to be deployed through JEA, 2020 - 2030	\$M	\$92.6		\$93.7
Total capex to be deployed, 2020 - 2030	\$M	\$95.4		\$96.5
Market capture outside of JEA territory	%			100%
Average margin, 2020 - 2030	%			10%
Tax burden	%			20%
Return on regulated capital, through 2030	\$M	\$19.2M		
Unregulated earnings, through 2030	\$M			\$7.7

Regulated
capex deployed
to earnings

¹ Include Orlando, Tallahassee, and Gainesville municipal utilities;

SOURCE: Jacksonville Transportation Authority; Duke NC Electric Transportation Pilot filing to the NC Utilities Commission (March 2019); Interviews with external experts; Team analysis

3.3 Own and operate bus charging infrastructure for Jacksonville's city and public school fleets

STRATEGIC INITIATIVES – CORE GROWTH OPPORTUNITIES

3.3

New electric school buses and new transit bus chargers (school buses/transit chargers)

Share of new charger deployed by utility (school buses/transit chargers)

\$K/bus (school buses/ transit chargers)

Capex deployed and regulated earnings



- Key assumptions:**
- ROE: 10.5%
 - Debt/equity split: 50%/50%
 - Cost of debt: 5%
 - Tax rate: ~20%

SOURCE: Team analysis

PROJECT SCAMPI



3.4 Build an L2 home charger installation business

- Clear existing capability / precedent
- Requires capability building or partnership / lacks precedent

Opportunity summary



Business model

- JEA will become the premier entity in Jacksonville to install the ecosystem of private home L2 chargers, **earning a 15% margin on installation**
- This program with the other EV market boosting programs will **drive 72GWh of load growth** in 2030 by supporting EV market growth throughout Jacksonville beyond the baseline financial projections
- As a **known entity with trusted residential and commercial relationships**, JEA is positioned to become an installer of choice for retailers - in both homes and at public nodes on the distribution system – potentially turbocharging the Jacksonville EV market



Market/regulatory precedent

- No utility precedent exists, but non-utility players are active in the highly fractured market



- Amazon Home Services allows **customers to purchase and schedule professional EV charging installation** directly on Amazon.com with or without purchase of a charger
- The program is invite only for service providers, and Amazon selects pre-approved service providers in specific areas where the program is offered. Revenue is shared between Amazon and the service providers retain 80% of the service sold while Amazon keeps 20%



- Chargepoint **partners with a network of local installers** to provide residential and commercial installation

¹ Assumes EV penetration boost case due to market stimulation from transport electrification initiatives – full calculation in appendix
SOURCE: Company website and press information

Earnings potential



Timing considerations

2023

-

2030



Earnings breakout¹

< \$1M

Cumulative earnings, 2020-30²



What it takes to succeed

- Partnership with major charging retailers to gain customer access in a fragmented, competitive market with commoditized hardware
- Sophisticated regulatory operation to defend building a standalone, competitive business within the utility territory
- Management and organization agility to quickly stand up a new, standalone unregulated business





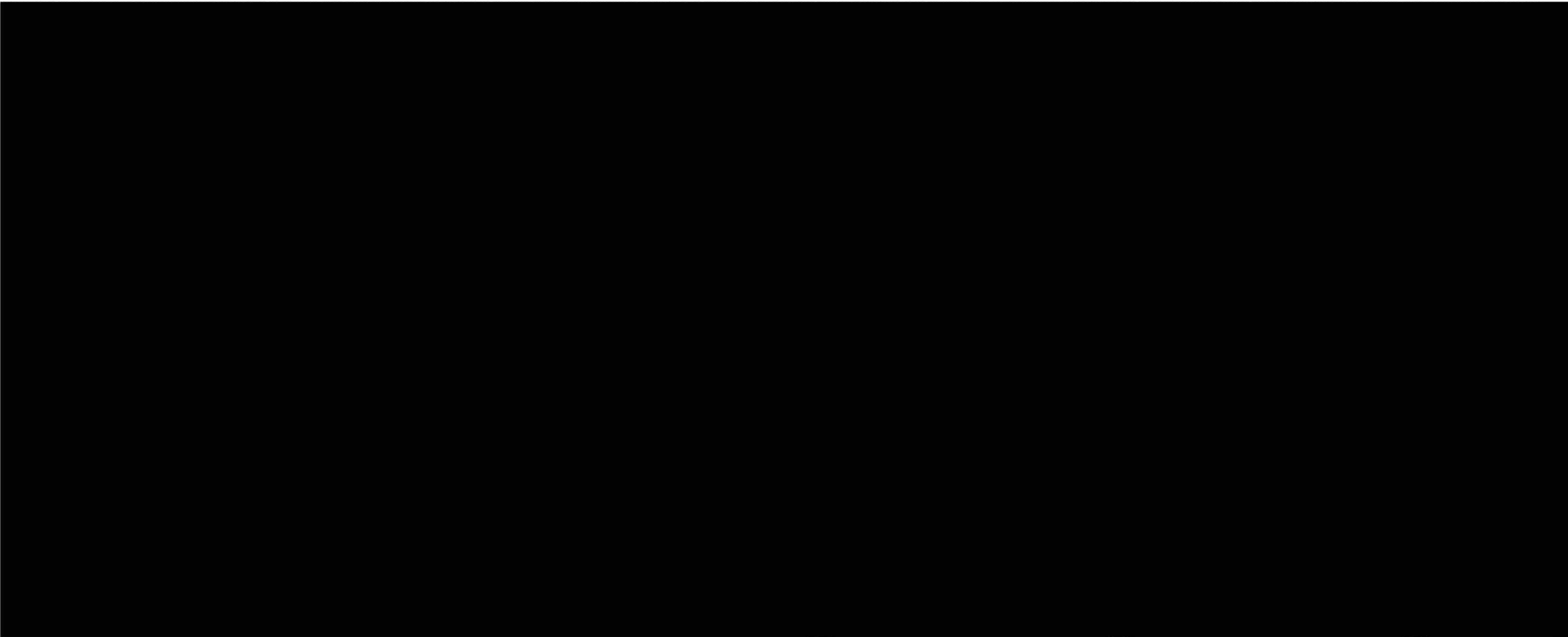
What you need to believe

- EV forecast will be boosted by this initiative and other EV related initiatives to drive EV penetration in Jacksonville to national levels
- Retailers will select JEA as partner of choice over other providers
- Regulators will allow JEA to operate in unregulated charging businesses while having fully separate regulated businesses
- Ability to capture market in a field that is currently not saturated, but could see a growing presence from incumbent players as EV deployment increases

² Post tax profit margin assuming 20% tax rate

3.4 Build an L2 home charger installation business

 Case included in final strategy
 Case excluded from final strategy

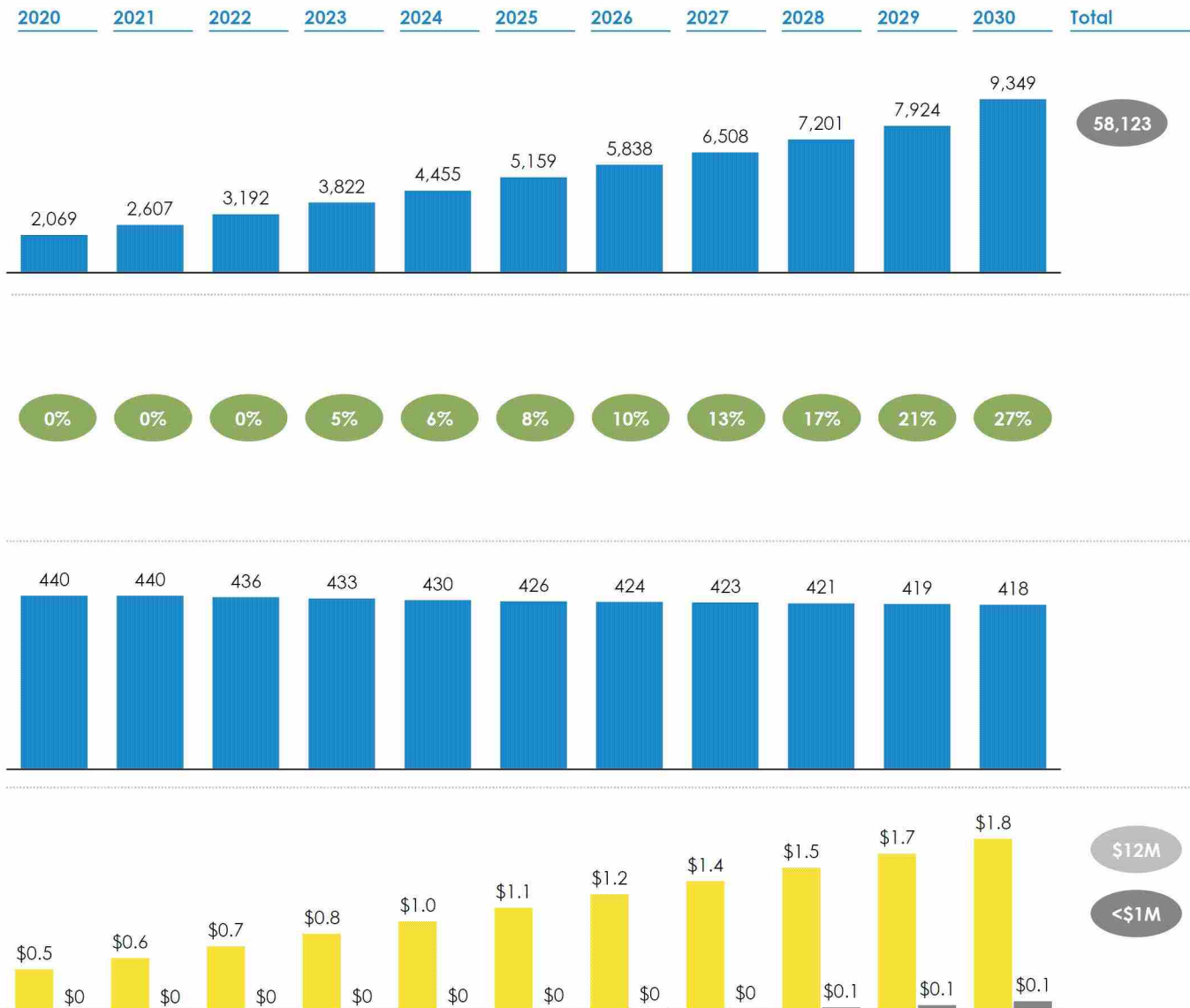
Inputs	Units	Base case	Catalyzed market scenario - National EV penetration rate	Underserved markets outside territory ¹
Start year	year	2023-2030	2023-2030	2025-2030
				
Unregulated earnings, through 2030	\$M	\$0.2	\$0.4	\$0.1

¹ Include Orlando, Tallahassee, and Gainesville municipal utilities;

SOURCE: FPL SEC filings; Amazon charger marketplace; Interviews with external experts; Team analysis

3.4 Build an L2 home charger installation business

Revenue, \$M Earnings, \$M



New EVs on the road during program year, national penetration rate scenario

Share of new charger deployed by utility (school buses/transit chargers)

\$/charger that goes to installer

Revenue and earnings

Key assumptions:

- Max capex deployment of \$200K to achieve an 8% IRR
- Margin: 15%
- Tax rate: ~20%

SOURCE: Team analysis

3.5 Electrify the Port of Jacksonville

- Clear existing capability / precedent
- Requires capability building or partnership / lacks precedent

Opportunity summary



Business model

- JEA will derive **\$6M in regulated earnings from the \$35M in Capex deployed** from an **ambitious program** to support electrification of port equipment and in-port activities (e.g. cranes and freight carriers)
- JEA has the **trained workforce and relationships with Jacksonville institutions** to catalyze widespread port facilities electrification, becoming a nationally known leader in port electrification



Market/regulatory precedent

- Limited proven examples exist outside of California, making ability to earn off of programs unclear



- **The Port of LA has committed to 100% decarbonization, driven by policy mandates, and will invest \$9-16B** to execute this plan



- **SoCal Edison contributed \$573 million of regulated capex** towards the total spend for LA port electrification



- **San Diego Gas & Power driving a suite of public sector, non-road, and other electrification projects:**
 - Port Electrification: Install 30-40 pieces of equipment to support electric semi-trucks and other medium/heavy-duty equipment
 - Airport Electrification: Install up to 45 charging ports to support ~90 new electric ground support equipment at SAN

Earnings potential



Timing considerations

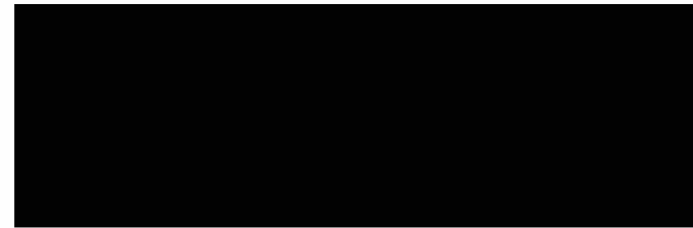
2023

-

2030



Earnings breakout



\$6M

Return on regulated capital, through 2030



What it takes to succeed

- In-house or contractor ability to deploy infrastructure (i.e., non-road electrified cranes and other equipment)
- Partnerships with private stakeholders (e.g., port owner / users) to facilitate technology transition



What you need to believe

- Will obtain regulatory approval for content and scale of program to be able to earn regulated return on capital and to establish port electrification program given the economic development that will take place for the city
- Fuel savings for port users will drive technology adoption

SOURCE: Company website and press information

Case included in final strategy
Case excluded from final strategy

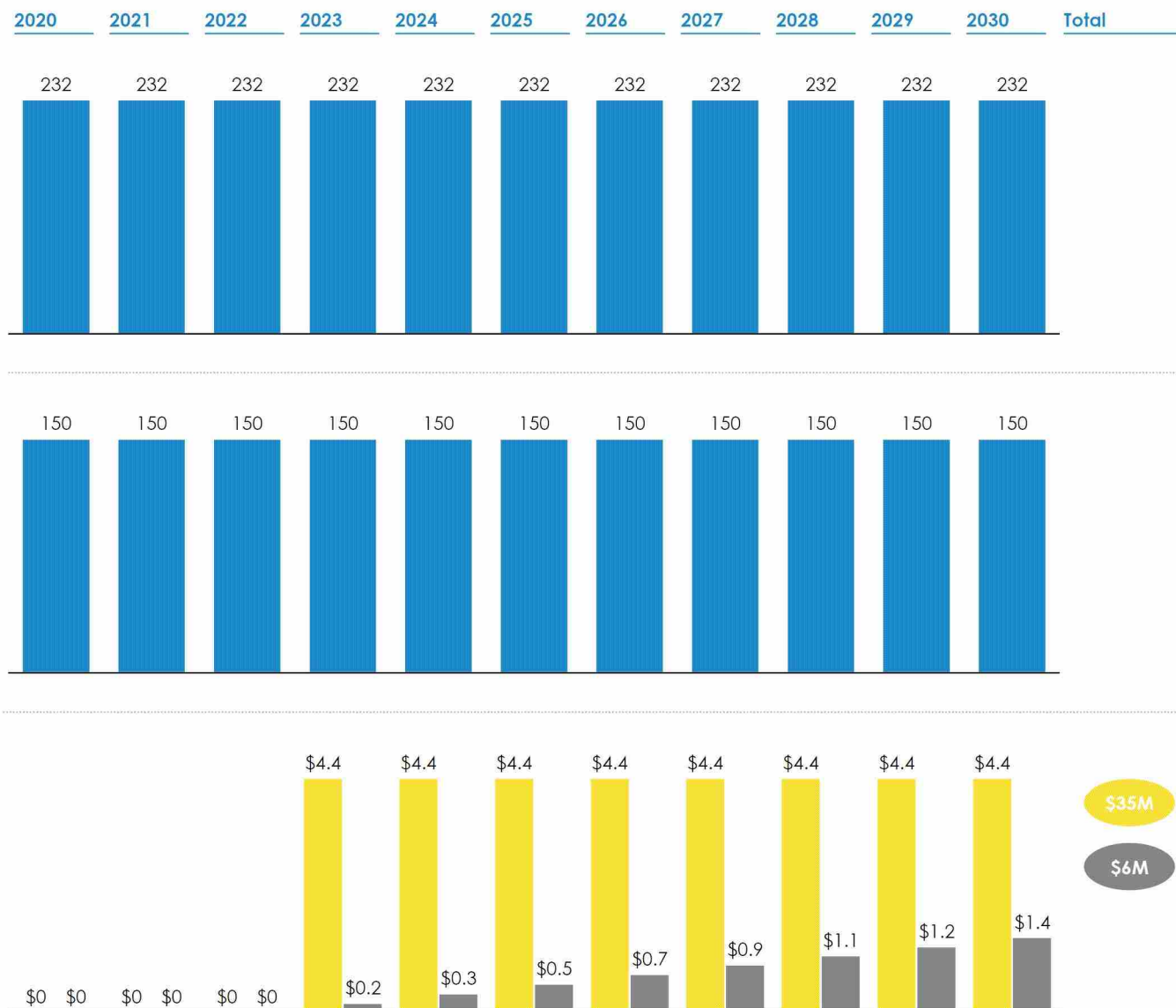
3.5 Electrify the Port of Jacksonville

■ Regulated capex deployed, \$M ■ Earnings on regulated capex, \$M

Shipping volume through Jacksonville Port, JEUs based on 2017 levels, 000's

\$/JEU, based on SoCal Edison port electrification program

Capex deployed and regulated earnings



Key assumptions:

- ROE: 10.5%
- Debt/equity split: 50%/50%
- Cost of debt: 5%
- Tax rate: ~20%

SOURCE: Team analysis

3.6 Install, own, and dispatch behind the meter DG storage

● Clear existing capability / precedent

● Requires capability building or partnership / lacks precedent

Opportunity summary



Business model

- JEA will derive **\$7M in regulated earnings from the \$30.7M in Capex deployed** to install and maintain utility-owned behind-the-meter battery storage, “boosting” near-term DG uptake in the pre-cost parity years
- JEA will **leverage its current behind the meter relationship with customers** to provide affordable storage systems that provide resiliency as storm frequency and intensity increase
- JEA will **own and install customers' storage** in partnership with hardware producers, charging a **monthly fee** to participating customers
- JEA can also realize **demand management savings** from aggregation and dispatch of the distributed batteries



Market/regulatory precedent

- Limited utility precedent.** Green Mountain Power is one of the only utilities to successfully implement this program, while private players are active in the space



- Green Mountain Power (GMP) & Tesla** signed a fixed price contract to design, install, operate and maintain customers' residential batteries for 10 years, at \$7k/yr per device



- GMP will own and operate the batteries**, which makes them a capital expense. Full program costs have been submitted as part of the 2019 rate case
- GMP's revenue requirement is reduced by customer payments and demand charge reductions



- Swell Energy** in partnership with **AutoGrid** is serving clients across the US, including FL
- Swell installs and maintains the battery technology while AutoGrid provides aggregation and operations to offer flexibility to the grid



Earnings potential



Program duration

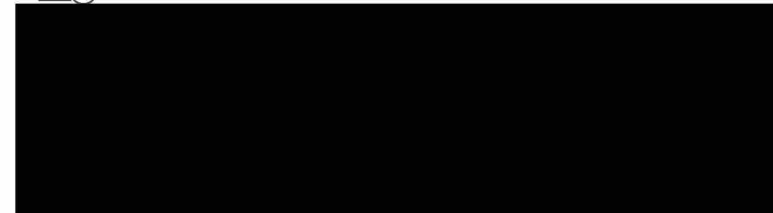
2021

–

2030



Earnings breakout^{1 2}



\$7M

Cumulative earnings, 2020-30



What it takes to succeed

- Robust marketing and sales organization with trusted access to customers in order to promote sign-up / buy-in for the storage program
- Procurement capabilities to facilitate build-out – hardware, installation, and O&M products and services
- Resourced regulatory team with the ability to make a regulatory case, based on proven utility business models



What you need to believe

- Will obtain regulatory approval for deploying BTM storage that the utility will be able to retain control of to earn a regulated return on capital deployed
- Customers will sign up for the program, where JEA retains ownership and control of the BTM assets in their homes
- The number of customers deploying distributed assets pre-cost parity will be boosted by this type of program offering, and by FL residents' need for resilience and reliability

¹ Sizing under catalyzed market scenario
more robust DG solar and storage market

SOURCE: Company website and press information

² Due to rounding, numbers may not tie ³ Assumes catalyzed market scenario for storage deployment based on the new programs fostering a

⁴ Average 5kW system cost between 2021-30, based on baseline DG forecasts

3.6 Install, maintain and dispatch residential storage



Case included in final strategy



Case excluded from final strategy

Inputs	Units	Base case	Catalyzed market - Aggressive pre-cost parity adoption	Underserved markets outside territory ¹
Program duration	year	2021-2030	2021-2030	2023-2030
Total customers deploying storage over program years, using Management Response as baseline	# customers	21K	24K	25K
Tax burden	%			20%
Earnings on regulated capital, through 2030	\$M	\$6.1M	\$7.4	
Unregulated earnings, through 2030	\$M			\$2.5

¹ Includes Orlando, Tallahassee, and Gainesville municipal utilities;

² Battery cost is forecasted at the annual level based on year of expected capital deployment during program duration

³ If outside of JEA territory, JEA can play as an unregulated developer / installer for utilities deploying comparable programs

SOURCE: Wood Mackenzie, Greentech Media, FPL SEC filings; Interviews with external experts; Team analysis

3.6 Install, maintain and dispatch residential storage

Number of customers deploying storage in territory (assuming a 5KW battery)

Share of customer deploying storage through utility program

\$/battery (assuming a 5KW battery)

Capex deployed and regulated earnings



Key assumptions:

- ROE: 10.5%
- Debt/equity split: 50%/50%
- Cost of debt: 5%
- Tax rate: ~20%

SOURCE: Team analysis

3.7 Build a DG solar installation business for Industrial customers

● Clear existing capability / precedent

● Requires capability building or partnership / lacks precedent

Opportunity summary



Business model

- JEA will **earn a ~15% margin** by providing solar design, development, and installation services for C&I customers
- JEA will **help C&I customers achieve their sustainability goals** and meet regulatory standards, leveraging its position as a utility poised to both enforce codes and compliance as well as provide "clean" energy solutions
- The unregulated program is set to start in 2022 providing time to build the business outside of current regulated framework



Market/regulatory precedent

- While market precedent exists, there are strong national incumbent players, who could enter the market and create value capture uncertainty



- NextEra Energy has a **robust unregulated renewable energy business**, which offers development services to C&I, utility, and other players
- In 2018 NextEra **deployed more than 1GW of wind capacity and nearly 0.5GW of solar capacity in C&I** customer PPAs



- DTE Energy founded an **unregulated "Power and Industrial" business**, which had **\$161M in income in 2018**
- Provides services to C&I customers, and currently has **217MW of renewables capacity** out under long-term PPAs
- Operates within and beyond DTE's territory



Earnings potential



Program duration

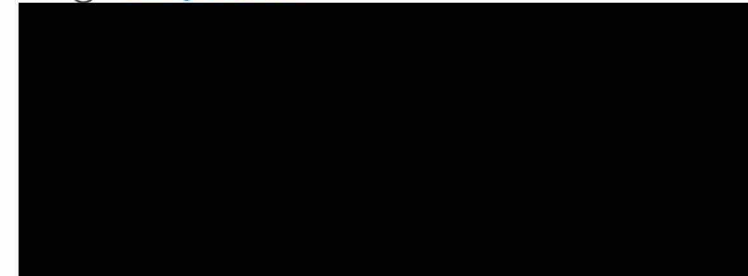
2022

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2030



Earnings breakout^{1 2}



\$4M

Cumulative earnings in JAX⁴

\$8M

Cumulative earnings outside JAX,



What it takes to succeed

- Project management and execution capabilities
- Dynamic marketing and sales organization, separate from JEA's regulated business and located outside of Jacksonville
- Sophisticated regulatory operation to defend building a standalone, competitive business within the utility territory
- Management and organization agility to quickly stand up a new, standalone unregulated business



What you need to believe

- C&I customers will choose to partner with JEA, enabling up to 19% market capture over 10 years
- Customer acquisition costs will remain low given scale of larger C&I projects, enabling profit margin of 15%
- Regulators will allow JEA to operate in unregulated solar installation businesses while having fully separate regulated businesses
- Ability to capture market in a field that is currently not saturated but larger national players, but could see a growing presence from incumbent players as demand grows

¹ Based on storage deployment projections. Potential that new customer offerings including this business could create upside by fostering new market growth

² Sizing under boosted market scenario. Detailed sizing information included in appendix

³ Assumes a 5KW battery size

⁴ Earnings are post-tax, assuming a 20% tax rate

SOURCE: Company website and press information

3.7 Build a C&I DG solar design, development, and installation business

STRATEGIC INITIATIVES – CORE GROWTH OPPORTUNITIES



Case included in final strategy



Case excluded from final strategy

Inputs	Units	Base case	Catalyzed market - Aggressive pre-cost parity adoption	Underserved markets outside territory ¹
Program duration	Years	2022-2030	2022-2030	2025-2030
C&I solar deployed, 2020 – 2030 using Management Response as a baseline	MW	254	285	304
Average solar cost, 2020 – 2030, based on Management Response forecasts	\$M/MW	\$1.1	\$1.1	\$1.1
Tax burden	%	20%	20%	20%
Unregulated earnings, through 2030	\$M	\$3.3	\$3.6	\$8.1

¹ Includes Orlando, Tallahassee, and Gainesville municipal utilities;

² Assumes JEA can reach FPL PPA market share of 19% in year 10 within territory, half of that in municipal territories based on understanding of these players' needs, and half of the muni capture in the rest of FL

SOURCE: EIA, FPL SEC filings; Interviews with external experts; Team analysis

3.8 Install “smart” poles – expanding JEA’s current LED lighting program

● Clear existing capability / precedent

● Requires capability building or partnership / lacks precedent

Opportunity summary



Business model

- JEA can drive ~\$40M in earnings from supporting 5G capabilities as an operator and partnering with telecom companies
- JEA can support penetration of 5G capabilities by:
 - Installing smart poles to enable other smart city functionalities (e.g. Wi-Fi, security cameras, EV charging)
 - Install 5G microcells on existing JEA assets, including poles, substations, pump stations, and other buildings
- Within these options, JEA could consider two revenue models:
 - Revenues from installation, service, and leasing fees to partners
 - Rate-based revenues, with the cost recovered by ratepayers
- If JEA partners with telecom companies and recovers the cost of deploying 5G infrastructure from ratepayers, JEA could facilitate free and/or low-cost 5G service offerings to public spaces and/or underserved communities



Market/regulatory precedent

- Market precedent exists, although programs relatively new with no long-term impact documentation. There may be a supply shortage in many markets, suggesting potential for need



- The City of San Jose partnered with telecom companies to install small cells on 4K light poles
- With a PPP, private companies are expecting to invest \$500M for small cell installations and fiber and other infrastructure



- Xcel Energy has provided wireless network operations access to 180K street lights in Colorado to deploy small cells, having received 1K small cell requests as of Aug 2019
- Carriers have the option of using existing streetlights or requesting new dual-site poles, which are installed by Xcel

1 Scaled from San Jose case study

2 Assume JEA can deploy \$25M in regulated capex per year, beginning in 2023

SOURCE: Company website and press information



Earnings potential



Program duration

2023

–

2030



Earnings breakout¹



\$200M²

Assumed
Capex
deployed,
2023-30



What it takes to succeed

- Personnel and equipment needs to deploy hardware
- Procurement capabilities for hardware
- Ability to acquire permits
- Smart cell deployment capabilities
- Capabilities to offer broadband service



What you need to believe

- Permits for small cell deployment will be approved in a time-appropriate manner



Sub Section 4

Additional Growth Opportunities

4A Water system opportunities

Sine 2000, JEA has acquired numerous local utilities in the greater Jacksonville area

Target	Seller	Announce- ment Date	# of Water Connections ⁽¹⁾	# of Sewer Connections ⁽¹⁾	Transaction Value (\$MM)
Gate Maritime	Gate Maritime Properties, Inc.	6/13/2000	NA	NA	\$1.0
Regency Utilities	Regency Utilities Inc.	4/10/2001	NA	NA	\$7.7
United Water	United Water Florida LLC	12/28/2001	37,000	37,000	\$219.0
Florida Water	Florida Water Services Corporation	10/15/2003	5,800	5,300	\$25.0
Nocatee	Nocatee Utility Corporation	12/6/2004	17,500 ⁽²⁾	17,500 ⁽²⁾	\$2.3
St. Joe	St. Joe Utilities Company	12/22/2004	8,600 ⁽²⁾	8,600 ⁽²⁾	\$2.3
Total			68,900	68,400	\$257.2



JEA has the historically-proven ability to expand its footprint through strategic acquisitions of nearby community owned utilities

1. Approximated connection figures
2. Estimated connections at build out

4A Water system opportunities (cont'd)

Overview



JEA has or could build this capability internally



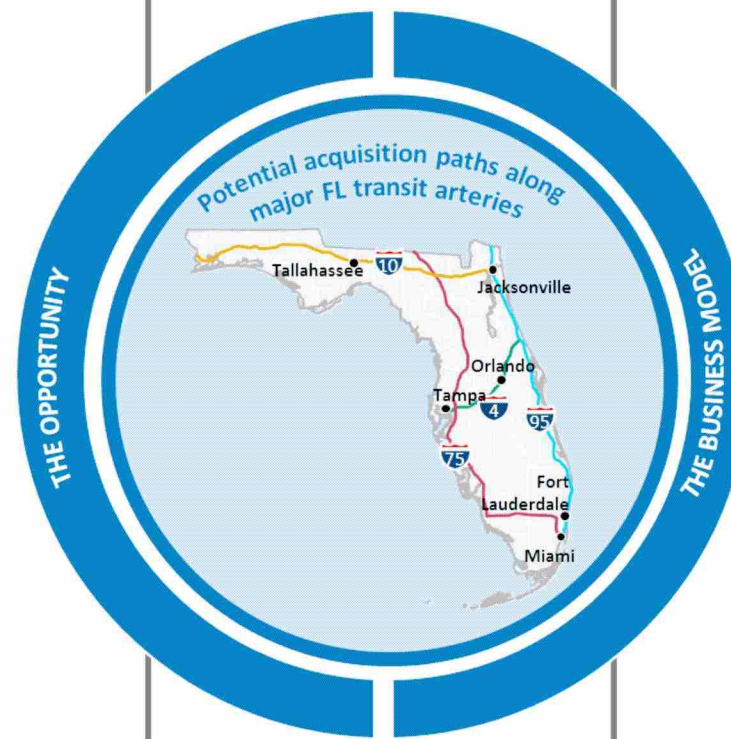
JEA would likely need to partner to build this capability

Water/wastewater utilities face increasing pressures, but have limited ability to respond...

- Florida water utilities will require \$10B through 2030 to replace aging infrastructure
- US water bills increased ~6% since 2010, while average consumption has decreased
- Water / wastewater regulations increased 40% between 2010-17. FL lawmakers are considering new environmental standards, but few utilities have the expertise to meet these regulations

...a high performer with operational excellence and access to capital can radically transform FL water/Wastewater utilities

- JEA is a top performing water/wastewater utility that has maintained high quality operations while keeping rates below Florida's mean
 - The average water utility's O&M/customer spend is 4x higher than JEA's, and wastewater O&M/customer spend is 5% higher
- JEA is a leader in environmental water quality, and can help Northeast Florida utilities meet and exceed environmental standards



How JEA will capture value

JEA will acquire and transform nearby water utilities along major Florida transit routes, becoming a roll-up platform for water services by doing the following:

- Bring acquired utilities up to top performer status
- Optimize back office services
- Enhance systems through efficient Capex deployment, maintaining affordability across a wide customer base

What it takes for JEA to be successful

- A deep understanding of the water system, regulations, and customer relationships
- A trusting relationship with Florida municipalities and utilities to support smooth acquisition and integration
- Operational expertise in managing regional capital projects, including implementing emerging technologies
- A partner to infuse capital for water acquisition, integration, and system improvements, given 30x P/E multiples ⁽¹⁾

By the numbers – expansion potential

Up to 2,950K new customer accounts added by acquiring utilities in Florida

\$1,135M of potential Opex savings from moving these utilities to JEA's efficiency ⁽²⁾

\$930M run-rate capex investment opportunity through 2030 ⁽³⁾

JEA can grow its water footprint via acquisition, using its top quartile operational performance and capabilities to provide more efficient, affordable services across Florida

¹ In 2018, water utilities were trading at P/E multiples of ~30x, higher than electric (~19x) and gas (~21x) utilities

² Assumes Northeast Florida utilities' cost profiles resemble the national average, as benchmarked by AWWA, and that JEA can improve O&M/customer spend to JEA's levels by 2030

³ Assumes JEA will invest Capex at 50% of the rate of its core business (including baseline Capex spend and incremental Strategic Capital investments in water)

Source: GWI, Circle of Blue, AWWA State of Water Industry 2019, Michigan State University, EPA, Market data, BAML analyst reports, press search, JEA Invitation to Negotiate

There are water/wastewater M&A opportunities along 4 major transport arteries

Value creation opportunity from each pathway

Pathway	Total count of utilities ³ , #	Customer accounts, '000	Opex reduction ¹ , \$M	Run-rate capex investment ² , \$M
I-95	21	1,215K	\$470M	\$385M
I-4	5	910K	\$350M	\$285M
I-10	4	175K	\$65M	\$55M
I-75	7	650K	\$250M	\$205M
Total	37	2,950K	\$1,135M	\$930M

M&A pathways - transportation arteries across Florida



Additionally, JEA will accrue equity value by becoming a roll-up platform that transforms and invests in these utilities

¹ Assumes potential acquisition targets operate at median Opex / customer, based on American Water Association benchmarking ² Assumes JEA will invest Capex in underfunded systems at 50% the rate of JEA's projected investments in its own system ³ Represents combined water and wastewater utilities only, located near the four major highways. Excludes 30 identified utilities without reported customer counts

SOURCE: GWI; utility websites; AWWA State of Water Industry 2019

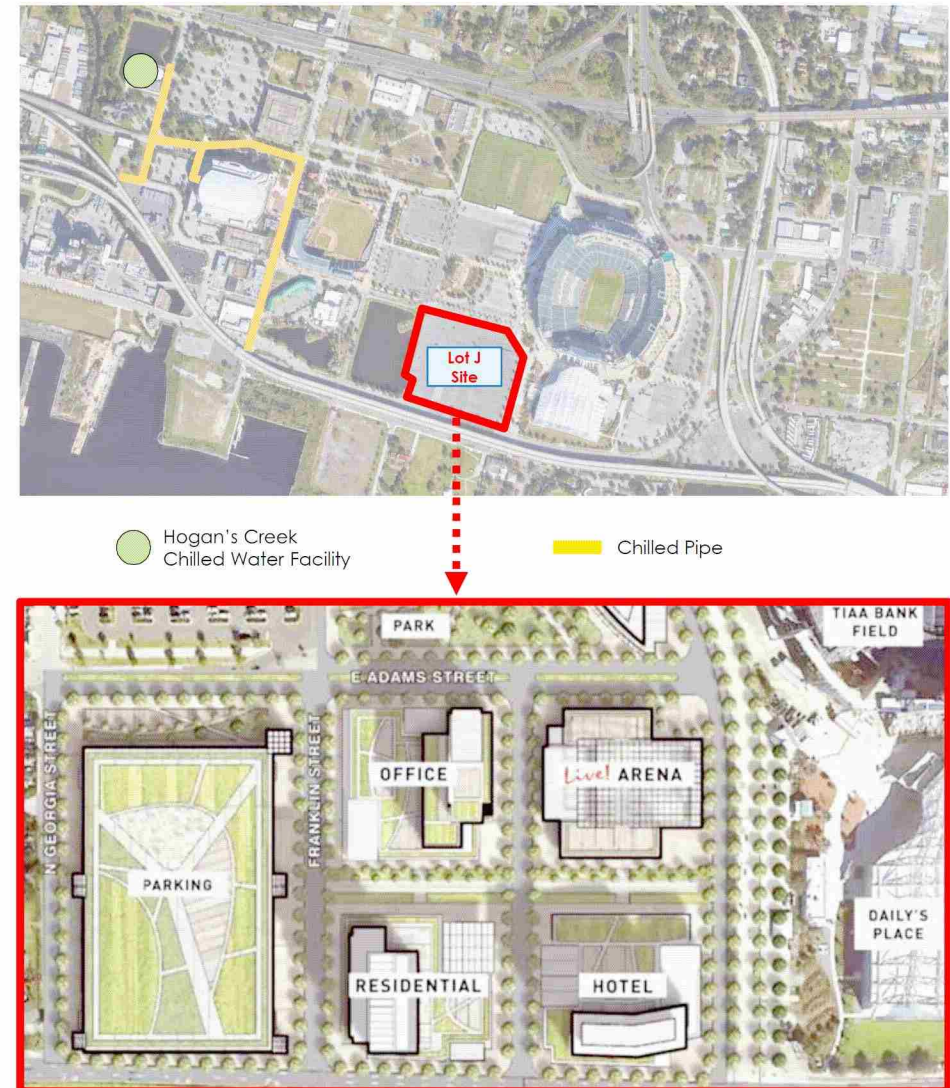
4B District Energy expansion opportunities | Lot J Development

Lot J Development Overview

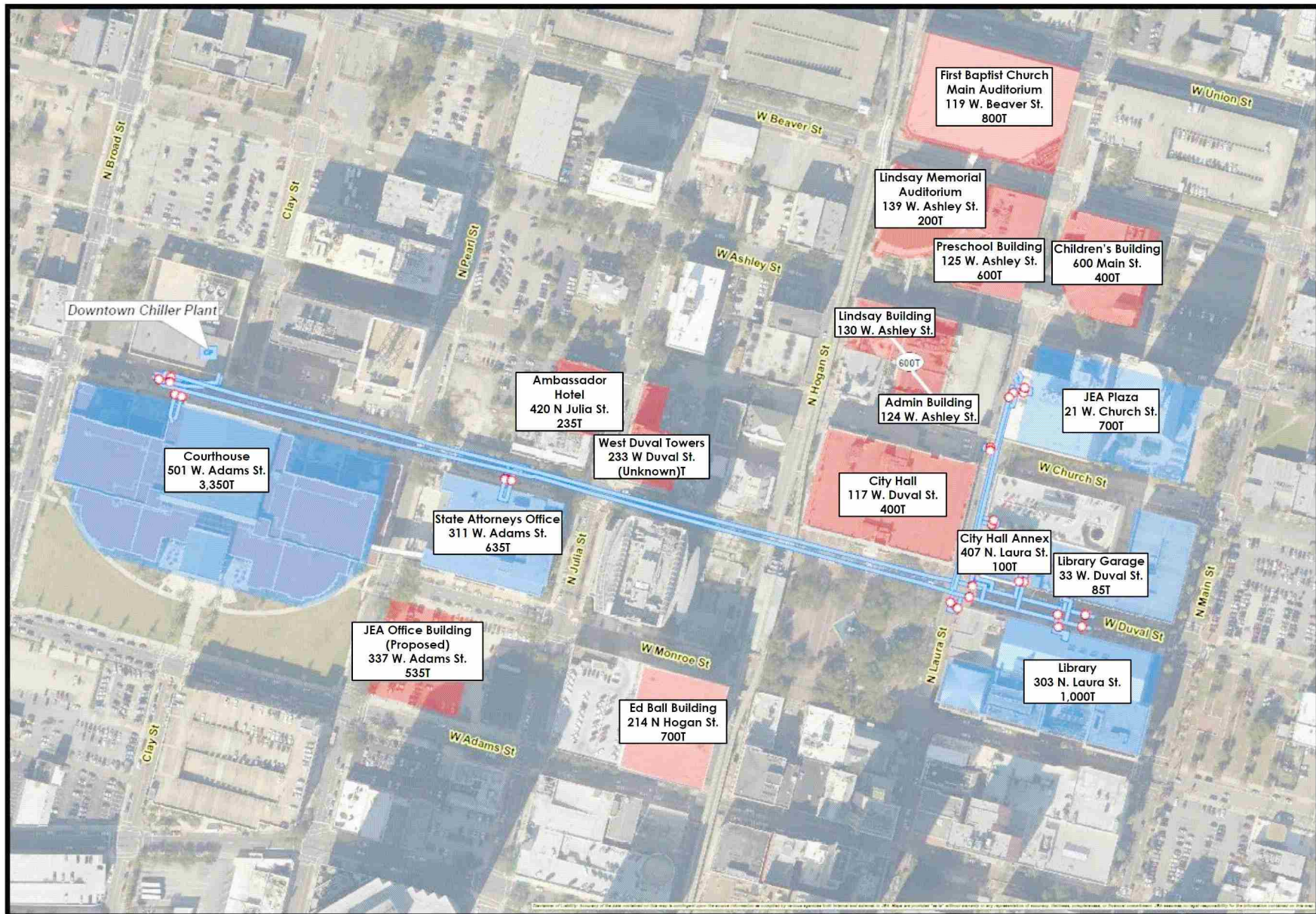
- On July 31, 2019, the City of Jacksonville announced an agreement with the Jacksonville Jaguars to invest and redevelop land, known as “Lot J”, located adjacent to TIAA Bank Field
 - Development plans for Lot J include a high-rise apartment building, a boutique hotel, office space, a live entertainment venue, and 13,000 parking spaces
 - As part of the agreement, the City would provide more than \$230 million in grants and infrastructure improvements
 - The remaining \$220 million of investment will be provided by the Jacksonville Jaguars
- Under the Lot J agreement, the City would give developers the land for the Lot J high-rise tower(s), the boutique hotel, the office tower and a mid-rise residential building or buildings
- The City has pledged \$92.8 million in infrastructure improvements in the area including necessary utility upgrades
- Development is expected to begin in 2Q2020
- The Lot J project is part of a larger overall master plan that could reach \$2.5 billion and extend to the nearby shipyards, encompassing over 4 million square feet

JEA District Energy System Growth Opportunity

- Given the close proximity of Lot J to JEA’s Hogan’s Creek chilled water facility and existing JEA District Energy System infrastructure, the Lot J development is a tangible opportunity for expansion of the system
 - Concentrated development provides ability to acquire customers at scale at a lower infrastructure investment cost
- Potential for additional development outside of Lot J as part of the larger master plan offers incremental opportunities for customer acquisition



4B Downtown expansion opportunities (cont'd)



4C Dark fiber growth opportunities

Overview

- Proliferation of smart, distributed devices will likely require increases in network capacity and speed, supporting expansion of the fiber-optic network
- Increase dark fiber leasing as JEA invests in its digital communications network to ensure it can provide the speed and capacity needed by new, distributed smart assets at the grid edge
- By investing in telecommunications infrastructure, JEA can enable improved operations and community development while enhancing returns



IoT/IIoT Subscription Services

- Leverages JEA field network resources
- Monetizes investments with recurring revenue



Public Facing WiFi

- Extend JEA messaging and commitment to community services
- Leverages underlying network for JEA/public use
- Advertising revenue



Downtown Fiber Network

- Unique opportunity to leverage infrastructure to connect
- JaxNAP located downtown



SmartCity Opportunities

- Innovation corridor launched on Bay St downtown
- Opportunity for further community advancement through utility investment



Fixed Wireless

- Utilize JEA towers and fiber network to provide core wireless network
- Sub-core network on JEA street lights and other vertical infrastructure



Broadband Services

- Existing infrastructure provides competitive advantage for entry
- High-margin proposition

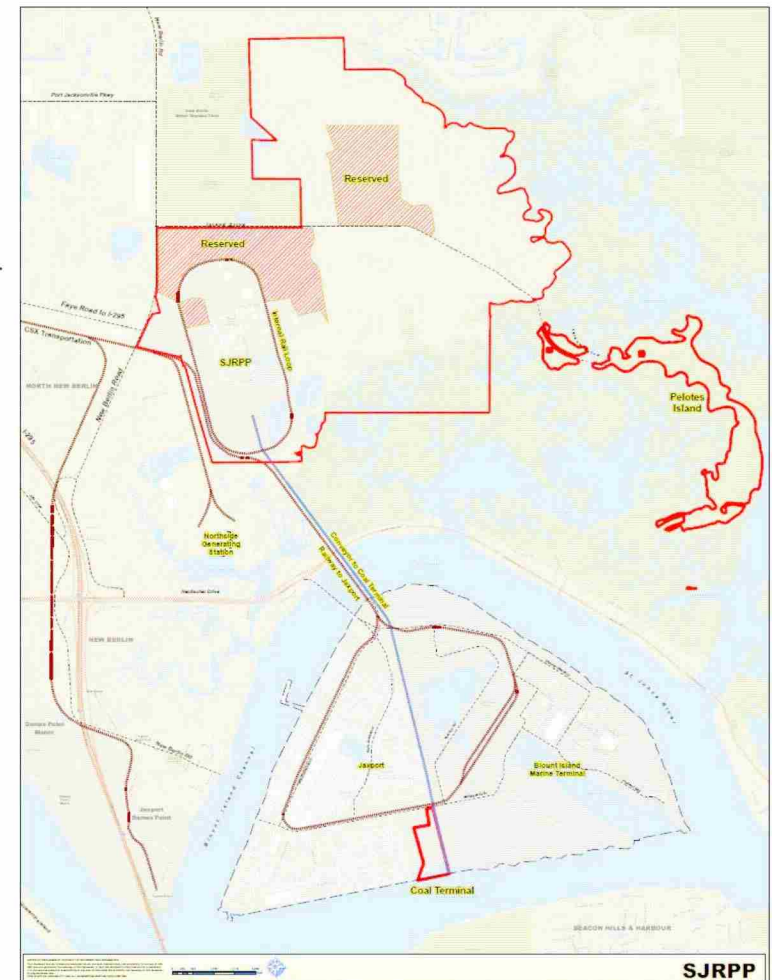
4D Owned land opportunities | St. Johns River Power Park

History

- Until it was closed in January 2018, the SJRPP was a large coal-fired electric generating plant, featuring two turbine/generators that each supplied 632 MW to the transmission grid
- When the plant was constructed in the early 1980s, it was the largest construction project in Jacksonville's history, taking six years to build, at a cost of \$1.45 billion
- Facility is jointly owned by JEA – 80% share, and Florida Power and Light – 20% portion
- After nearly 30 years in service, SJRPP closed on January 5, 2018. Catalytic reactors, cooling towers and smokestacks were imploded
 - Demolition and site remediation will continue until mid-2020
- Decommissioned plant is located on a 1,600 acre site in Northeast Jacksonville
- JEA will retain 100% of site ownership at the completion of remediation; therefore, site is included as part of the generation portfolio

The Future of SJRPP

- Decommission of the generation site creates an extremely unique opportunity for JEA, freeing up a large, unencumbered parcel of land that is accessible by water for a variety of import/export uses
- Other potential uses of the asset include:
 - Dedicated port facility
 - New generation facility (currently permitted)
 - Large wholesale data center w/ dedicated generation
 - Property sales for redevelopment reflected in "Management Sales Initiatives" HoldCo revenue in Respondent Financial Model



Closing the Power Park reduces JEA carbon emissions by 30% and saves \$50 million in operating expenses per year

1 Assumes potential acquisition targets operate at median Opex / customer, based on American Water Association benchmarking 2 Assumes JEA will invest Capex in underfunded systems at 50% the rate of JEA's projected investments in its own system 3 Represents combined water and wastewater utilities only, located near the four major highways. Excludes 30 identified utilities without reported customer counts

Source: JEA internal data

4E Emerging future homes opportunities

Overview



JEA has or could build this capability internally



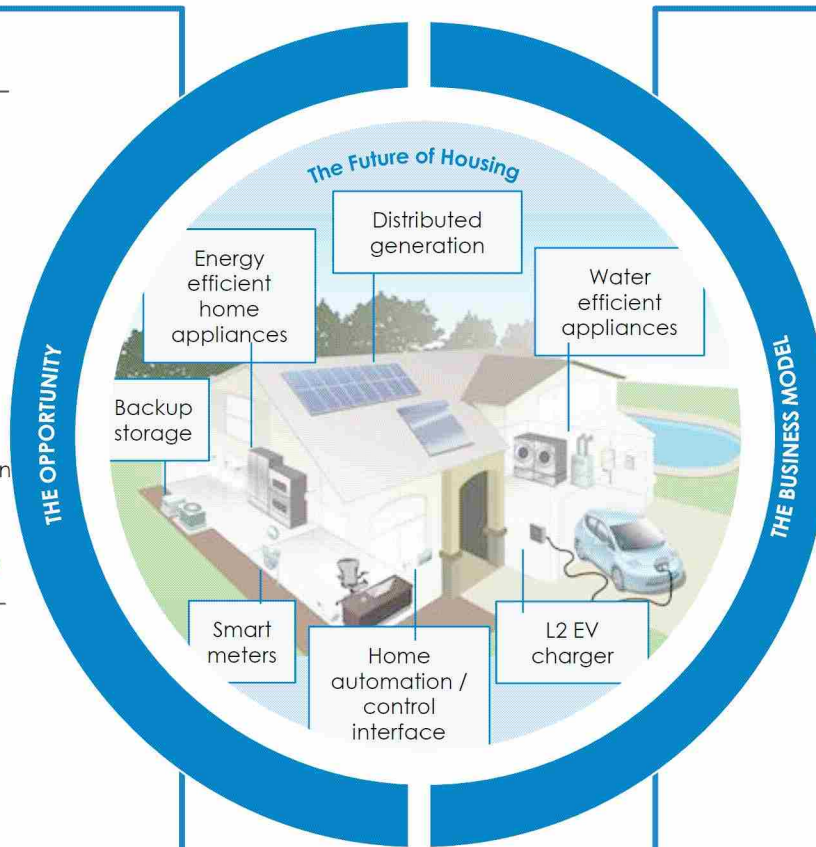
JEA would likely need to partner to build this capability

The Home of the Future will be fully automated, efficient, and resilient...

- The confluence of automation and energy / water efficiency is revolutionizing homes
 - The home control/ automation market is fast growing, with over 30% growth projected through 2022, and \$39B worth of system sales in the US in 2019
 - Energy efficiency is becoming mainstream – ACEEE estimates that emerging EE technologies can reduce consumption an additional 40-60% by 2050
- As Florida storms become more frequent and intense, customers are increasingly interested in resiliency products

...but there is not yet a clear "winner" in the Future Homes solutions space

- Recent market growth is fragmented across appliance contracting, energy services, and technology, stalling further adoption
- Utilities sit at the nexus of these industries, and have the relationships (e.g., with customers, contractors) and capabilities to tap into the nascent Future Homes market



How JEA can capture value

- JEA will provide a packaged set of Future Homes solutions to revolutionize housing in Florida
- This business could "play" in the following spaces:
 - Provide engineering, design, and installation services of Future Homes packages for new build developers
 - Offer flexible financing (e.g., "rent to own", tariff financing) to incentivize adoption
 - Maintain and optimize resource use for ecosystems of home devices, using the home as a grid asset
 - Retrofit existing homes and communities

What it takes for JEA to be successful

- ✓ Deep energy and water expertise, including system optimization
- ✓ A partner with operational capabilities to install and maintain cutting edge home appliances in the crowded contractor market
- ✓ A sophisticated marketing and sales organization that can acquire and educate customers outside JEA's current geography
- ✓ A financial partner that can underwrite / support flexible financing of customers' end systems

By the numbers – market potential

2 million new build homes in FL projected between 2020-30, requiring nearly **\$20B** worth of appliances

Over **1 in 3** 2030 homes could be fully efficient, using recent growth in the home automation market as a proxy¹

At this trajectory, Homes of the Future can make up a **\$1.3B** market in Florida in 2030

JEA has an opportunity to become the premier, smart, efficient homes solutions supplier for Florida developers and communities, providing solutions for resilience, resource efficiency, and automation/control

Note: The smart thermostat and HVAC market grew 36% p.a. between 2014-18 - whole home systems could follow the same trajectory

SOURCE: U.S. Census Bureau (BOC): New Residential Construction (C20, C22); Moody's Analytics Estimated and Forecasted, Alternative Fuels Data Center

JEA can also attract new businesses to Jacksonville, supporting economic development and growing load

Industries targeted by Economic Development Organizations in the Southeast¹



Aerospace and Defense



High Tech and IT



Financial Services



Manufacturing



Transport and Logistics



How JEA will deliver

- By building a dedicated economic development arm, JEA can encourage development in sectors already considering relocating to the Southeast
 - JEA's **existing strengths** (e.g., high-growth MSA, Port of Jacksonville) already make Jacksonville an attractive destination for target corporations
 - As JEA executes its 2030 strategy, it can provide the **resiliency and low carbon offerings** critical to helping corporations meet their sustainability goals
- By attracting 2-3 new, energy intensive businesses to Jacksonville in the next 10 years, JEA can **grow load 2-4%**. This load growth is equivalent to adding JEA's two largest customer accounts²

Case studies – utilities' successful economic development efforts

TVA is supporting Google's conversion of a coal plant into a renewably powered data center



\$600M investment will employ approx. 100 people and provide a \$100K grant for STEM education for Jacksonville County Public Schools

NextEra Energy is building a **150MW solar farm** that will provide 100% renewable power to the data center

Georgia Power is bringing a 1.1Msf manufacturing facility to Savannah



Safavieh, a manufacturer and distributor of international home furnishings, will create 200 jobs and invest over **\$60M in a new distribution facility**

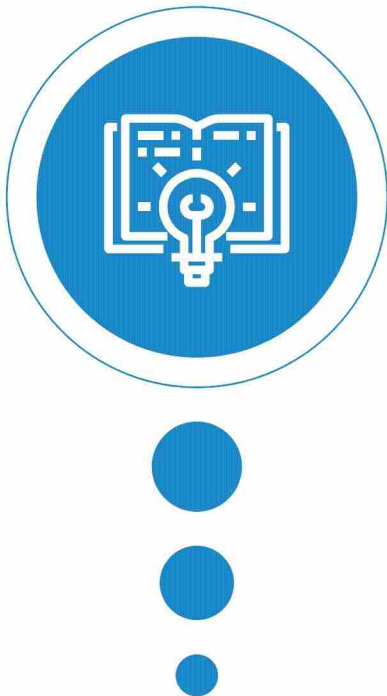
¹ Not exhaustive – survey of large utility economic development organization

² JEA's two largest customer accounts - US Navy Public Works Center (1.8%) and the City of Jacksonville (1.8%) - amount to 3.6% of 2018 load

SOURCE: Site Selection, Company websites and press – The Guardian, Knoxville

Table of Contents

 Detail to follow



About this document

An overview of the approach and guidelines to JEA's strategy development

Strategic aspirations for JEA

2030 Vision for JEA across strategic pillars (customer, environmental, community, financial), with metrics outlined for each pillar; summary of how strategic initiatives will achieve financial and non-financial metrics

Operational improvements

Redesign of JEA's operating practices to achieve top-quartile performance as measured against JEA's peer set

Strategic capital investments

Investments in traditional utility infrastructure to deliver new outcomes and benefits to our customers (e.g. customer resiliency, grid flexibility and customer choice, clean and sustainable, etc)

Core growth opportunities

Investments in new growth businesses core to the utility model: transport electrification, energy efficiency, distributed generation

Additional growth opportunities

Additional growth initiatives that position JEA as a growth platform that are currently not included in the financial projections

Next steps

Next steps to build capabilities and execute strategy

Appendix 1: Initiative charters and supporting analyses

Further detail on the strategic and financial objectives for each new initiative

Appendix 2: Next steps on implementation

Critical next steps to drive implementation of the strategic plan

Appendix 3: Organizational health initiatives

Actions JEA will undertake to improve its organizational health



Appendix 2

Next Steps on Implementation

Improve generation efficiency to reduce consumption of fuels, other consumables

Generation efficiency



Activities

Timing

Required Team(s)/Capabilities

Risk to manage

Implementation Planning

<ul style="list-style-type: none"> Identify controllable parameters to pursue reduction of chemical variability as precisely as reasonably required 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy: technical knowledge of fuel consumption and relevant performance metrics 	<ul style="list-style-type: none"> May require greater technical knowledge
<ul style="list-style-type: none"> Review utilization of environmental controls (e.g., limes, limestone, ammonia) to ensure excess materials are not used 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy: technical knowledge of fuel consumption and consumables 	<ul style="list-style-type: none"> May require greater technical knowledge
<ul style="list-style-type: none"> Develop understanding of drivers of heat rate and emissions limits (e.g., SO_x, NO_x) using performance monitoring tools, like etaPRO 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy: familiarity with the most relevant heat rate monitoring tools and their integration with existing generation infrastructure; deep understanding of drivers of heat rate and loss 	<ul style="list-style-type: none"> Potential need for improved technical knowledge of heat rate monitoring tools and plant engineering
<ul style="list-style-type: none"> Establish KPI for 1- and 30-day rolling average for sulphur oxides and nitrides, and include this metric in key management meetings 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy: familiarity with SO_x and NO_x emissions limits; technical knowledge of drivers of heat rate and chemical variability 	<ul style="list-style-type: none"> Potential need for improved technical knowledge of heat rate monitoring tools and plant engineering

Implementation

<ul style="list-style-type: none"> Coach plant operators on identified interventions to reduce heat rate and convince managers to adjust behaviors accordingly 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Energy: coaching; change management; technical understanding of drivers of heat rate and chemical variability 	<ul style="list-style-type: none"> Potential need for more project managers with black belt experience
<ul style="list-style-type: none"> Monitor and control emissions scrubbing and use of related chemicals 	<ul style="list-style-type: none"> Q1-Q2 2021 	<ul style="list-style-type: none"> Energy: project management; technical knowledge of drivers of heat rate and chemical variability 	<ul style="list-style-type: none"> May require greater technical knowledge
<ul style="list-style-type: none"> Install a new crush and burn system to reduce limestone usage 	<ul style="list-style-type: none"> Q1-Q2 2021 	<ul style="list-style-type: none"> Energy: ability to translate data on reductions into actionable steps to reduce fuel consumption 	<ul style="list-style-type: none"> Potential need for external technical expertise on limestone crushing system
<ul style="list-style-type: none"> Collect data to monitor improvements in efficiency and reductions in excess consumption 	<ul style="list-style-type: none"> Q1-Q2 2021 	<ul style="list-style-type: none"> Energy: technical understanding of drivers of heat rate and chemical variability 	<ul style="list-style-type: none"> May require improved data collection practices

1 All of the major initiative categories will be rolled out to Northside, Kennedy, Brandy Branch, and Greenland generation facilities; 2 Bottom up planning Environmental; 4 To be rolled out in the following order: Buckman; District II; Southwest; Arlington; and Water Treatment Plants

SOURCE: Expert insights

3 HR, Finance, Compliance,

1.2 Generation: frontline operational excellence

Frontline operational excellence



	Activities	Timing ¹	Required Team(s)/Capabilities	Risk to manage
Imple- mentation Planning	<ul style="list-style-type: none"> Build a frontline operational excellence team that includes three key sub-teams: plant operations, maintenance; and fuel handling 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy: ability to identify leaders within organization, and experience forming cross-functional working teams; project management 	<ul style="list-style-type: none"> Need to create new cross-functional operations team
	<ul style="list-style-type: none"> Each sub-team conducts plant visits to perform wrench time analysis and identify existing pain points (e.g., log taking, work planning, repairing equipment, pulling bottom ash, etc.) 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Frontline operations sub-teams: experience observing sites and monitoring crew performance 	<ul style="list-style-type: none"> May need to ensure that observations are standardized across sub-teams
	<ul style="list-style-type: none"> Host frontline ideation sessions for each of the pain points to proactively engage workforce on solutions 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Frontline operations sub-teams: effective communication with frontline 	<ul style="list-style-type: none"> Need to identify session leaders
	<ul style="list-style-type: none"> Develop implementation plans and KPIs for new activities based on site observations, frontline ideation, and industry best practices 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Frontline operations sub-teams: project management; work planning; knowledge of equipment specifications and needs 	<ul style="list-style-type: none"> May need greater strategic collaboration between sub-teams
Imple- mentation	<ul style="list-style-type: none"> Coach frontline on implementation 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Frontline operations sub-teams: effective communication/coaching for frontline; change management 	<ul style="list-style-type: none"> Requires central change management team
	<ul style="list-style-type: none"> Pilot and test new practices with subset of crews and sub-teams (e.g., improved logs; improved scheduling and work planning; maintenance and repairs, etc.) 	<ul style="list-style-type: none"> Q4 2020-Q4 2022 	<ul style="list-style-type: none"> Frontline operations sub-teams: project management; change management 	<ul style="list-style-type: none"> Potential need for more project managers with black belt/lean operations experience
	<ul style="list-style-type: none"> Refine and scale new practices, monitoring KPIs to validate impact 	<ul style="list-style-type: none"> Q4 2020-Q4 2022 	<ul style="list-style-type: none"> Frontline operations sub-teams: project management; ability to leverage data to effectively monitor KPIs 	<ul style="list-style-type: none"> Need to build digital/analytics team and incorporate with existing strategy

¹ To accrue benefits of operational improvements in a coordinated fashion, it is best to undertake new activities within the same time period

SOURCE: Expert insights

1.3 Generation: Lower fuel handling expenses

Lower fuel handling expenses



Activities	Timing	Required Team(s)/Capabilities	Risk to manage
<ul style="list-style-type: none"> Define potential opportunity to reduce fuel handling costs, including contractor spend and ancillary activities (e.g., ash handling) 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> Energy: thorough technical, financial, and operational understanding of fuel handling 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
<ul style="list-style-type: none"> Conduct market assessment to understand players in the coal fuel handling market 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> Energy: understanding of market for fuel handling 	<ul style="list-style-type: none"> May require greater understanding of market
<ul style="list-style-type: none"> Conduct supplier workshops for coal yard contractors and providers of ancillary services 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> Energy/Procurement: technical and operational understanding of fuel handling 	<ul style="list-style-type: none"> Requires cross-functional collaboration between Energy and Procurement
<ul style="list-style-type: none"> Understand and prioritize other non-negotiation-related opportunities in the coal yard (e.g., rental cost reduction; diesel spend reduction; streamlined operations to reduce overtime/party size) through variety of diagnostic analyses (e.g., fleet rationalization, wrench time analysis, etc.) 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> Energy: workforce planning; crew right-sizing; scheduling and planning; operational knowledge of coal yards 	<ul style="list-style-type: none"> May require additional operational expertise
<ul style="list-style-type: none"> Identify and prioritize additional non-cost opportunities related to heat rate and auxiliary load 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> Procurement: technical understanding of drivers of heat rate and auxiliary load 	<ul style="list-style-type: none"> May require additional technical knowledge
<ul style="list-style-type: none"> In addition to expense reduction, understand opportunities to maximize value capture from sale of fly ash based on market scan 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> Energy: knowledge of market for coal byproducts 	<ul style="list-style-type: none"> May require additional technical knowledge
<ul style="list-style-type: none"> Based on contractor fuel handling expense reduction targets, issue RFPs 	<ul style="list-style-type: none"> Q4 2020-Q1 2021 	<ul style="list-style-type: none"> Energy: knowledge of technical needs Procurement: experience in RFPs; vendor management 	<ul style="list-style-type: none"> May require additional capabilities vendor management
<ul style="list-style-type: none"> Negotiate contracts for fuel handling contractor services 	<ul style="list-style-type: none"> Q4 2020-Q1 2021 	<ul style="list-style-type: none"> Procurement: excellence in negotiations 	<ul style="list-style-type: none"> May require additional capabilities in negotiations
<ul style="list-style-type: none"> Rollout coal yard operational efficiency activities 	<ul style="list-style-type: none"> Q1-Q2 2021 	<ul style="list-style-type: none"> Energy: operational knowledge of coal yards 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
<ul style="list-style-type: none"> Monitor changes in spend for fuel handling expenses 	<ul style="list-style-type: none"> Q1-Q2 2021 	<ul style="list-style-type: none"> Energy: technical and financial knowledge of fuel handling 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing

Imple-
mentation
Planning

Imple-
mentation

SOURCE: Expert insights

1.4 Generation: demand management

Demand management



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Conduct bottom-up diagnostic to identify areas of biggest spend (e.g., fuels, reagents, and byproducts; materials management; contracted maintenance) on a plant-by-plant basis	• Q2 2021	<ul style="list-style-type: none"> • Energy: generation plant/maintenance managers with knowledge of day-to-day operations/unique plant design • Finance: financial modeling; data analysis 	• May require further centralized knowledge and coordination at plant level
	• Itemize overall spend across major categories and develop framework to define which work and materials are necessary	• Q2 2021	<ul style="list-style-type: none"> • Energy: generation plant/maintenance managers with knowledge of day-to-day operations/unique plant design 	• May require further centralized knowledge and coordination at plant level
	• Assess optimal mix between contracted and insourced work (e.g., consider insourcing smaller jobs)	• Q2 2021	<ul style="list-style-type: none"> • Energy: technical knowledge of plant needs; work planning; understanding of labor contracts 	• May require further centralized knowledge and coordination at plant level
	• Conduct deep-dive analyses to prioritize major categories for demand management (e.g., ammonia; activated carbon; sodium bicarbonate, etc.)	• Q2 2021	<ul style="list-style-type: none"> • Energy: engineering expertise to identify major spend categories specific to generation plants 	• May require additional engineering and technical expertise
	• Develop strategy to control spend	• Q3 2021	<ul style="list-style-type: none"> • Energy/Procurement: cross-functional strategic planning 	• Requires cross-functional planning
Implementation	• Stand up Spend Control Tower at each plant with regular cadence of meetings and culture of “no”	• Q3 2021-2030	<ul style="list-style-type: none"> • Energy: project management; technical knowledge • Procurement: ability to provide commercial perspective as needed 	• Requires cross-functional team at each plant with input from Procurement
	• Deploy tiger teams to develop fact base, conduct market research, and reduce spend across priority categories	• Q4 2021-2030	<ul style="list-style-type: none"> • Energy: technical knowledge of spend categories; understanding of market for relevant materials • Procurement: ability to provide commercial perspective as needed 	• Requires cross-functional teams with subject matter expertise
	• Undertake contractor spend reduction program	• Q4 2021	<ul style="list-style-type: none"> • Energy: work planning; understanding of day-to-day operating needs 	• Energy team may require additional resources
	• Undertake rental equipment spend program	• Q4 2021	<ul style="list-style-type: none"> • Energy: fleet optimization; equipment management 	• Energy team may require additional resources

SOURCE: Expert insights

1.5 T&D: frontline operational excellence

Frontline operational excellence



	Activities	Timing ¹	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Build a frontline operations working team that includes key sub-teams (e.g., lines and cables; substations; feeders; planning and scheduling; and other maintenance) 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy: ability to identify leaders within organization, and experience forming cross-functional working teams; project management 	<ul style="list-style-type: none"> Need to create new cross-functional operations team
	<ul style="list-style-type: none"> Each sub-team conducts a ride-along in order to conduct wrench time analysis and identify existing pain points, as well proportion of crew leader time spent on field supervising vs. admin 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Frontline operations sub-teams: experience observing sites and monitoring crew performance 	<ul style="list-style-type: none"> May need to ensure that observations are standardized across sub-teams
	<ul style="list-style-type: none"> Host frontline ideation sessions for each of the pain points to proactively engage workforce on solutions 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Frontline operations sub-teams: effective communication with frontline 	<ul style="list-style-type: none"> Need to identify session leaders
	<ul style="list-style-type: none"> Create an implementation plan and KPIs for improved operations (e.g., crew matching, materials planning strategy for pre-kitting, fleet optimization plan) 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Frontline operations sub-teams: Work planning, crew right-sizing; resource scheduling; fleet optimization 	<ul style="list-style-type: none"> Requires coordination between sub-teams
Implementation	<ul style="list-style-type: none"> Coach frontline on implementation 	<ul style="list-style-type: none"> Q4 2020-Q4 2022 	<ul style="list-style-type: none"> Frontline operations sub-teams: effective communication/coaching for frontline; change management 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Pilot and test new practices with subset of crews and sub-teams on daily, weekly, and monthly basis (e.g., pre-kitting; improved fleet management, etc.) 	<ul style="list-style-type: none"> Q4 2020-Q4 2022 	<ul style="list-style-type: none"> Frontline operations sub-teams: project management; change management 	<ul style="list-style-type: none"> Potential need for more project managers with black belt/lean operations experience
	<ul style="list-style-type: none"> Refine and scale new practices, monitoring KPIs to validate impact 	<ul style="list-style-type: none"> Q4 2020-Q4 2022 	<ul style="list-style-type: none"> Frontline operations sub-teams: project management; ability to leverage data to effectively monitor KPIs Digital/Analytics: ability to support data collection and analysis in partnership with operations teams 	<ul style="list-style-type: none"> Need to build digital/analytics team

¹ To accrue benefits of T&D operational improvements in a coordinated fashion, it is best to undertake new activities within the same time period

SOURCE: Expert insights

1.6 T&D: digitalize frontline operations

Digitalize frontline operations



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Imple- mentation Planning	<ul style="list-style-type: none"> Identify opportunities to digitalize elements of user journeys (e.g., pre-drop, tools selection) and core workflows through observations, interviews, and data analysis 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Energy: strategic planning; design thinking; experience observing sites and monitoring crew performance Digital/Analytics: familiarity with T&D digital needs and relevant solutions on the market 	<ul style="list-style-type: none"> Need to build new ad hoc team and integrate within existing group
	<ul style="list-style-type: none"> Conduct pre-discovery and discovery activities (e.g., sketches, pre-build wireframes) and socialize with field workforce 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Energy: design thinking; effective communication with frontline workforce 	<ul style="list-style-type: none"> May require team leaders with greater capabilities in design thinking
	<ul style="list-style-type: none"> Sequence key digitalization opportunities based on observations, interviews, data analysis, and pre-discovery/discovery activities 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Energy: strategic planning; understanding of frontline needs; familiarity with day-to-day operations 	<ul style="list-style-type: none"> May require greater familiarity with digital solutions
	<ul style="list-style-type: none"> Develop a roadmap that identifies strategic digital priorities for T&D organization; secure manager buy-in for plan 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Energy: project management; strategic planning; Digital/Analytics: familiarity with T&D digital needs and relevant solutions on the market 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Develop system architecture and data lake; integrate new infrastructure with existing core IT 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Digital/Analytics: data architecture IT: systems engineering 	<ul style="list-style-type: none"> Need to build digital/analytics team
Imple- mentation	<ul style="list-style-type: none"> Stand up agile development teams that collaborate with frontline to develop MVPs (minimum viable products) to test in variety of use cases (e.g., field mobility, operational technology for visibility into work, leak surveys, emergent work, planned work, etc.) 	<ul style="list-style-type: none"> Q1 2023 	<ul style="list-style-type: none"> Energy: project management; understanding of frontline needs; agile experience Digital/Analytics: software development 	<ul style="list-style-type: none"> Potential need for more project managers with agile experience to implement strategy
	<ul style="list-style-type: none"> Procure relevant technology¹ 	<ul style="list-style-type: none"> Q2 2023 	<ul style="list-style-type: none"> Procurement: vendor selection; contract management; excellence in negotiations Digital/Analytics; Energy: technical knowledge of digital technologies 	<ul style="list-style-type: none"> Requires cross-functional collaboration between procurement, digital, and energy teams
	<ul style="list-style-type: none"> Pilot digital solutions with a small set of crews 	<ul style="list-style-type: none"> Q2-Q3 2023 	<ul style="list-style-type: none"> Energy: project management; change management; effective communication with frontline crews Digital/Analytics: technical knowledge of digital technologies 	<ul style="list-style-type: none"> Need for agile/change management expertise Need to build digital/analytics team
	<ul style="list-style-type: none"> Refine and scale by expanding across the T&D frontline workforce 	<ul style="list-style-type: none"> Q3-Q4 2024 	<ul style="list-style-type: none"> Energy: project management; change management; effective communication with frontline crews 	<ul style="list-style-type: none"> Potential need for project managers with agile experience
	<ul style="list-style-type: none"> Monitor KPIs to track impact and progress 	<ul style="list-style-type: none"> Q3 2024-2030 	<ul style="list-style-type: none"> Digital/Analytics: data collection, storage, and analysis 	<ul style="list-style-type: none"> Need to build digital/analytics team

¹ For further detail on procurement activities, see the strategic sourcing initiative

SOURCE: Expert insights

1.7 T&D: demand management

Demand management



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Conduct bottom-up diagnostic to identify areas of biggest spend (e.g., cables, transformers, switchgear) on a facility basis	• Q2 2021	<ul style="list-style-type: none"> • Energy: T&D managers with knowledge of day-to-day operations • Finance: financial modeling; data analysis 	• May require further centralized knowledge and coordination at facility level
	• Itemize overall spend across major categories and develop framework to define which work and materials are necessary	• Q2 2021	• Energy: T&D line managers with knowledge of day-to-day operations/unique plant design	• May require further centralized knowledge and coordination at facility level
	• Assess optimal mix between contracted and insourced work (e.g., consider insourcing smaller jobs)	• Q2 2021	• Energy: technical knowledge of plant needs; work planning; understanding of labor contracts	• May require further centralized knowledge and coordination
	• Conduct deep-dive analyses to prioritize major categories for demand management (e.g., core T&D equipment, spare parts)	• Q2 2021	• Energy: engineering expertise to identify major spend categories specific to T&D	• May require additional engineering and technical expertise
	• Develop strategy to control spend	• Q3 2021	• Energy/Procurement: cross-functional strategic planning	• Requires cross-functional planning
Implementation	• Stand up Spend Control Tower at each facility with regular cadence of meetings and culture of “no”	• Q3-Q4 2021	<ul style="list-style-type: none"> • Energy: project management; technical knowledge • Procurement: ability to provide commercial perspective as needed 	• Requires cross-functional team at each facility with input from Procurement
	• Deploy tiger teams to develop fact base, conduct market research, and reduce spend across priority categories	• Q4 2021-Q1 2022	<ul style="list-style-type: none"> • Energy: technical knowledge of spend categories; understanding of market for relevant materials • Procurement: ability to provide commercial perspective as needed 	• Requires cross-functional teams with subject matter expertise
	• Undertake contractor spend reduction program	• Q2-Q3 2021	• Energy: work planning; understanding of day-to-day operating needs	• Energy team may require additional resources
	• Undertake rental equipment spend program	• Q2-Q3 2021	• Energy: fleet optimization; equipment management	• Energy team may require additional resources

¹ For further detail on procurement activities, see the strategic sourcing initiative

SOURCE: Expert insights

1.8 T&D: vegetation management



Vegetation management

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Assess current annual vegetation inspection plan and spend targets, along with existing contracts with vendors 	Q3 2020	<ul style="list-style-type: none"> Energy: technical knowledge of vegetation management 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Procure advanced analytical modeling and machine learning tools to assess infrastructure and vegetation growth rates¹ 	Q3 2020	<ul style="list-style-type: none"> Energy: knowledge of key vegetation characteristics (e.g., seasonality, common threats) Procurement; Digital/Analytics: ability to select appropriate machine learning and analytic solutions 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Collect data on trims, inspections, and line maintenance and run relevant analyses (e.g., TCO vs. cycle time) 	Q3 2020	<ul style="list-style-type: none"> Energy and Digital/Analytics: data collection and handling; data analysis 	<ul style="list-style-type: none"> May require greater technical knowledge
	<ul style="list-style-type: none"> Develop multi-layer spend taxonomy to identify and quantify major areas of vegetation contractor spend 	Q3 2020	<ul style="list-style-type: none"> Energy and Digital/Analytics: project management; modeling Procurement: cross-functional collaboration 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Translate data and spend categories into set of procurement requirements that target most important types of vegetation and locations 	Q3 2020	<ul style="list-style-type: none"> Digital/Analytics: data translation Procurement: excellence in vendor communication 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Develop tree trimming strategy based on analytic inputs 	Q3 2020	<ul style="list-style-type: none"> Energy: strategic planning 	<ul style="list-style-type: none"> May require greater technical knowledge
Implementation	<ul style="list-style-type: none"> Launch requests for information (RFIs) from broad set of vendors² 	Q4 2020	<ul style="list-style-type: none"> Energy: technical knowledge of vegetation management Procurement: excellence in vendor communication 	<ul style="list-style-type: none"> Procurement team may require additional resources
	<ul style="list-style-type: none"> Launch multi-level requests for proposal (RFP)/ e-auctions to maximize savings per category 	Q1 2021	<ul style="list-style-type: none"> Procurement: expertise in RFPs; vendor management 	<ul style="list-style-type: none"> Procurement team may require additional resources
	<ul style="list-style-type: none"> Conduct negotiations with vendors 	Q2 2021	<ul style="list-style-type: none"> Procurement: excellence in vendor negotiations 	<ul style="list-style-type: none"> May require further development of negotiation skills
	<ul style="list-style-type: none"> Achieve principal agreement with vendor and finalize contract 	Q3 2021	<ul style="list-style-type: none"> Procurement: excellence in contracts Legal: knowledge of applicable contract law 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Continue rollout of advanced analytics tools for vegetation management (e.g., trim predicted by growth/risk area) and vendor spend 	Q3 2021-2030	<ul style="list-style-type: none"> Energy: project management Digital/Analytics: data analysis; modeling; machine learning 	<ul style="list-style-type: none"> Need for project managers with expertise in vegetation Need to build digital/analytics team
	<ul style="list-style-type: none"> Monitor contractor activity based on agreed-upon deadlines and milestones 	Q3 2021-2030	<ul style="list-style-type: none"> Energy: contractor management; experience using performance management software 	<ul style="list-style-type: none"> May require technical knowledge of new assets
	<ul style="list-style-type: none"> Set up a systematic supplier management process (e.g., quarterly reviews) 	Q3 2021-2030	<ul style="list-style-type: none"> Energy: vendor communication; contract analysis 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing

¹ N.B. This area of procurement addresses the analytics solutions required to undertake an effective contracting strategy for vegetation management. ² For further detail on procurement activities, see the strategic sourcing initiative

SOURCE: Expert insights

1.9 Water and wastewater: frontline operational excellence

Frontline operational excellence



Activities¹

Timing²

Required Team(s)/Capabilities

Risk to manage

Implementation Planning

• Distribution/Collection: Build a frontline operations working team	• Q4 2020	• Water and Wastewater: ability to identify leaders within organization, and experience forming cross-functional working teams; project management	• Need to create new cross-functional operations team
• Distribution/Collection: conduct ride-alongs for distribution and collection to quantify current wrench time and identify existing pain points	• Q4 2020	• Frontline operations working team: experience observing crew performance; technical expertise in distribution	• May need to ensure that observations are standardized across sub-teams
• Distribution/Collection: Host frontline ideation sessions for each of the pain points to proactively engage workforce on solutions	• Q4 2020	• Frontline operations working team: effective communication with frontline	• Need to identify session leaders
• Distribution/Collection: Redesign work planning to streamline routing of teams/materials	• Q4 2020	• Frontline operations working team: Work planning, crew right-sizing, and schedule optimization	• Requires coordination between sub-teams
• Distribution/Collection: Develop action plans and KPIs for new activities based on observations, frontline ideation, and industry best practices	• Q4 2020	• Frontline operations working team: project management; ability to gather best practices within the utility industry	• May need greater strategic collaboration between sub-teams

Implementation

• Distribution/Collection: Coach frontline on implementation	• Q1-Q3 2021	• Frontline operations working team: effective communication/coaching for frontline; change management	• Requires central change management team
• Distribution/Collection: Pilot and test new practices with subset of crews and sub-teams	• Q1 2021-Q4 2023	• Frontline operations working team: project management; change management	• Potential need for more project managers with black belt/lean operations experience
• Distribution/Collection: Refine and scale new practices, monitoring KPIs to validate impact	• Q1 2022—Q4 2023	• Frontline operations working team: ability to deploy work order/field force management system; ability to leverage data to effectively monitor KPIs; project management	• Potential need for a more effective work order/field force management system to create and track data

¹ Savings in this initiative are allocated to distribution and collection, not water treatment; ² To accrue benefits of water and wastewater operational improvements in a coordinated fashion, it is best to undertake new activities within the same time period

SOURCE: Expert insights

1.10 Water and wastewater: digitalize frontline operations

Digitalize frontline operations



	Activities ¹	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Treatment: Identify opportunities to digitalize elements of user journeys (e.g., pre-drop, tools selection) and core workflows through observations, interviews, and data analysis	• Q1 2023	<ul style="list-style-type: none"> • Water/wastewater: strategic planning; design thinking; experience observing sites and monitoring crew performance • Digital/Analytics: familiarity with digital needs for treatment and relevant solutions on the market 	• Need to build new ad hoc team and integrate within existing group
	• Treatment: Sequence key digitalization opportunities based on observations, interviews, data analysis, and pre-discovery/discovery activities (e.g., sketches, wireframes)	• Q1 2023	• Water and Wastewater : strategic planning; understanding of frontline needs; familiarity with day-to-day operations	• May require greater familiarity with digital solutions
	• Treatment: Develop a roadmap that identifies strategic digital priorities for water treatment plants; secure manager buy-in for plan	• Q1 2023	<ul style="list-style-type: none"> • Water and Wastewater: project management; strategic planning • Digital/Analytics: familiarity with water/wastewater treatment digital needs and relevant solutions on the market 	• Need to build digital/analytics team
Implementation	• Treatment: Stand up agile development teams that collaborate with plant crews to develop MVPs (minimum viable products) to test in variety of use cases (e.g., ...)	• Q2-Q3 2023	<ul style="list-style-type: none"> • Water and Wastewater: knowledge of tasks that present automation opportunity; ability to communicate needs to procurement • Procurement: vendor selection for automation solutions; some technical knowledge required 	• Potential need for more project managers with agile experience to implement strategy
	• Treatment: Procure relevant technology ²	• Q4 2023-Q1 2024	<ul style="list-style-type: none"> • Procurement: vendor selection; contract management; excellence in negotiations • Digital/Analytics; Water/Wastewater: technical knowledge of digital technologies 	• Requires cross-functional collaboration between procurement, digital, and water/wastewater teams
	• Treatment: Pilot digital solutions with a small set of plant crews	• Q2-Q4 2024	<ul style="list-style-type: none"> • Water and Wastewater: project management; change management; effective communication with plant crews • Digital/Analytics: technical knowledge of digital technologies 	<ul style="list-style-type: none"> • Need for agile/change management expertise • Need to build digital/analytics team
	• Treatment: Refine and scale by expanding across the workforce	• Q2-Q4 2024	• Water and Wastewater : project management; change management; effective communication with frontline crews	• Potential need for more project managers with agile experience
	• Treatment: Monitor KPIs to track impact and progress	• Q2-Q4 2024-2030	• Digital/Analytics : data collection, analysis, and storage	• Need to build digital/analytics team

¹ Savings in this initiative are attributed to water and wastewater treatment, not distribution and collection. ² For further detail on procurement activities, see the strategic sourcing initiative
SOURCE: Expert insights

1.11 Water and wastewater: reduce auxiliary load



Reduce auxiliary load

	Activities ¹	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Use a performance monitoring tool in control room to inform baseline perspective on auxiliary load in order to optimize pump station behavior 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Water: familiarity with monitoring tool; familiarity with drivers of heat rate and heat loss; ability to collect and process data 	<ul style="list-style-type: none"> May require upskilling in performance monitoring tools
	<ul style="list-style-type: none"> Develop benchmarks for appropriate auxiliary load based on JEA past performance and that of other industry players 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Water: engineering understanding of pumping behavior performance limits; knowledge of industry players Digital/Analytics: modeling support to water 	<ul style="list-style-type: none"> May require greater engineering knowledge Need to build digital/analytics team that understands water technology
	<ul style="list-style-type: none"> Conduct analyses to optimize pump station behavior (e.g., model of water network; sensor of wells; machine-learning algorithm to direct pumping in real-time) 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Digital Analytics: data analysis; machine learning expertise Water: technical/engineering knowledge of pumps 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Set target for load reduction based on industry insights and analyses 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Water: technical/engineering knowledge of pumps; strategic planning 	<ul style="list-style-type: none"> May require additional technical knowledge
	<ul style="list-style-type: none"> Based on analyses, develop coordinated schedule and plan to reduce auxiliary load (e.g., optimizing pumping cycles to ensure pump stations do not simultaneously work against each other) 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Water: technical/engineering knowledge to optimize pump scheduling 	<ul style="list-style-type: none"> May require additional capabilities to manage pumping schedules to minimize electricity usage
Implementation	<ul style="list-style-type: none"> Identify auxiliary equipment that can reduce loads 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Water: technical knowledge of relevant pumping technologies Procurement: knowledge of regional providers of these assets/services 	<ul style="list-style-type: none"> May require greater technical knowledge
	<ul style="list-style-type: none"> Procure load-reduction equipment 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Procurement: vendor selection for load-reduction solutions; some technical knowledge required; excellence in contracts 	<ul style="list-style-type: none"> May require greater technical knowledge
	<ul style="list-style-type: none"> Pilot auxiliary load-reduction technologies to optimize pumping (install or outsource to contractor) 	<ul style="list-style-type: none"> Q2-Q4 2021 	<ul style="list-style-type: none"> Water: project management; contractor management 	<ul style="list-style-type: none"> Potential need for more project managers with black belt experience
	<ul style="list-style-type: none"> Collect data to track success of new technology rollout 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Digital/Analytics: data collection, storage, and monitoring 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Refine and scale by expanding across the fleet, monitoring KPIs to validate impact 	<ul style="list-style-type: none"> Q4 2021-2030 	<ul style="list-style-type: none"> Water: knowledge of relevant SOWs on pump controls 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing

SOURCE: Expert insights

1.12 Water and wastewater: demand management

Demand management



	Activities ¹	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Conduct bottom-up diagnostic to identify areas of biggest spend (e.g., chlorine and other DBPs; tubing, filtration sands, maintenance, etc.) for each treatment plant or distribution facility 	• Q2 2021	<ul style="list-style-type: none"> Water/wastewater: managers with knowledge of day-to-day operations/unique plant design Finance: financial modeling; data analysis 	<ul style="list-style-type: none"> May require further centralized knowledge and coordination at plant/facility level
	<ul style="list-style-type: none"> Itemize overall spend across major categories and develop framework to define which work and materials are necessary 	• Q2 2021	<ul style="list-style-type: none"> Water/wastewater: managers with knowledge of day-to-day operations/unique plant design 	<ul style="list-style-type: none"> May require further centralized knowledge and coordination at plant/facility level
	<ul style="list-style-type: none"> Assess optimal mix between contracted and insourced work (e.g., consider insourcing smaller jobs) 	• Q2 2021	<ul style="list-style-type: none"> Water/wastewater: technical knowledge of materials/plant needs; work planning; understanding of labor contracts 	<ul style="list-style-type: none"> May require further centralized knowledge and coordination at plant/facility level
	<ul style="list-style-type: none"> Conduct deep-dive analyses to prioritize major categories for demand management depending on needs of treatment plant or distribution facility 	• Q2 2021	<ul style="list-style-type: none"> Water/wastewater: engineering expertise to identify major spend categories specific to treatment plants 	<ul style="list-style-type: none"> May require additional engineering and technical expertise
	<ul style="list-style-type: none"> Develop strategy to control spend 	• Q3 2021	<ul style="list-style-type: none"> Water/wastewater; Procurement: cross-functional strategic planning 	<ul style="list-style-type: none"> Requires cross-functional planning
Implementation	<ul style="list-style-type: none"> Stand up Spend Control Tower at each plant/facility with regular cadence of meetings and culture of “no” 	• Q3 2021-2030	<ul style="list-style-type: none"> Water/wastewater: project management; technical knowledge Procurement: ability to provide commercial perspective as needed 	<ul style="list-style-type: none"> Requires cross-functional team at each treatment plant/distribution facility with input from Procurement
	<ul style="list-style-type: none"> Deploy tiger teams to develop fact base, conduct market research, and reduce spend across priority categories 	• Q4 2021-2030	<ul style="list-style-type: none"> Water/wastewater: technical knowledge of spend categories; understanding of market for relevant materials Procurement: ability to provide commercial perspective as needed 	<ul style="list-style-type: none"> Requires cross-functional teams with subject matter expertise
	<ul style="list-style-type: none"> Undertake contractor spend reduction program 	• Q4 2021	<ul style="list-style-type: none"> Water/wastewater: work planning; understanding of day-to-day operating needs 	<ul style="list-style-type: none"> Water/wastewater team may require additional resources
	<ul style="list-style-type: none"> Undertake rental equipment spend program 	• Q4 2021	<ul style="list-style-type: none"> Water/wastewater: fleet optimization; equipment management 	<ul style="list-style-type: none"> Water/wastewater team may require additional resources

¹ Savings in this initiative are attributed to treatment, distribution, and collection

SOURCE: Expert insights

1.13 Customer: frontline operational excellence



Frontline operational excellence

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Build a frontline operations performance team that includes call center managers and meter team representatives 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Customer: talent development; project management 	<ul style="list-style-type: none"> Need to create customer-focused operations team
	<ul style="list-style-type: none"> Coach frontline working team on agile and lean operating practice 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Customer (or external group): ability to communicate agile/lean operating model to leaders 	<ul style="list-style-type: none"> May require third-party support
	<ul style="list-style-type: none"> Team leaders observe performance across key moments at call centers (e.g., outage, billing issues, etc.) and metering (e.g., meter reads) to understand opportunities and pain points for operational excellence 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Frontline operations team: experience observing sites and monitoring crew performance 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Host frontline ideation sessions for each of the pain points to proactively engage customer-facing workforce on solutions 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Frontline operations team: effective communication with frontline; talent development 	<ul style="list-style-type: none"> Need to identify session leaders
	<ul style="list-style-type: none"> Develop action plans and KPIs for new activities based on call center observations, ride-alongs for metering, frontline ideation, and industry best practices 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Frontline operations team: project management; ability to gather best practices within the utility industry 	<ul style="list-style-type: none"> May need greater strategic collaboration between sub-teams
Implementation	<ul style="list-style-type: none"> Develop better call scripts 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Frontline operations team: effective communication/coaching for frontline; change management 	<ul style="list-style-type: none"> Customer team may require additional resources
	<ul style="list-style-type: none"> Coach frontline on implementation 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Frontline operations team: effective communication/coaching for frontline; talent development 	<ul style="list-style-type: none"> Customer team may require additional resources
	<ul style="list-style-type: none"> Implement plans for optimized capacity and skill-based routing 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Frontline operations team: work planning and schedule optimization 	<ul style="list-style-type: none"> No gaps identified
	<ul style="list-style-type: none"> Pilot and test new practices with subset of call center and metering workforce 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Frontline operations sub-teams: project management; change management; communication with frontline 	<ul style="list-style-type: none"> Potential need for more project managers with black belt/lean operations experience
	<ul style="list-style-type: none"> Improve performance management practices using workshops, people analytics, and other tools 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Frontline operations team: familiarity with relevant technologies and procedures 	<ul style="list-style-type: none"> May require greater technical knowledge
	<ul style="list-style-type: none"> Refine and scale new practices, monitoring KPIs to validate impact 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Frontline operations sub-teams: project management; ability to leverage data to effectively monitor KPIs Digital/Analytics: ability to support data collection and analysis in partnership with operations teams 	<ul style="list-style-type: none"> Need to build digital/ analytics team and incorporate with existing strategy

SOURCE: Expert insights

1.14 Customer: digitalize customer journeys



Digitalize customer journeys

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Identify key customer journeys and quantify magnitude of break-points for each, using advanced analytics 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Customer: knowledge of key customer journeys and needs Digital/Analytics: financial modeling; data science 	<ul style="list-style-type: none"> Need to build digital/analytics team that includes data scientists/architects
	<ul style="list-style-type: none"> Conduct qualitative analysis (e.g., interviews and surveys on pain points) to generate customer insights 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Customer: customer interviews; testing/iteration Regulatory/Legal: familiarity with regulatory and legal stipulations for data collection from customers 	<ul style="list-style-type: none"> Customer team may require additional resources
	<ul style="list-style-type: none"> Develop a digital operations strategy that identifies specific technologies for each customer journey 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Customer: project management; market research 	<ul style="list-style-type: none"> Customer team may require additional resourcing
Implementation	<ul style="list-style-type: none"> Stand up agile development teams that collaborate with customers to develop MVPs (minimum viable products) to test and iterate new ideas (e.g., beta-testing apps; new Internet platforms, etc.) 	<ul style="list-style-type: none"> Q4 2022 	<ul style="list-style-type: none"> Customer: project management; design thinking; agile thinking; thorough understanding of customer needs Digital/Analytics: software development; software engineering 	<ul style="list-style-type: none"> Potential need for more project managers with black belt/agile operations experience and customer knowledge
	<ul style="list-style-type: none"> Pilot digital solutions and test with customers on new journeys 	<ul style="list-style-type: none"> Q1-Q2 2023 	<ul style="list-style-type: none"> Customer: project management; communication with frontline teams and customers 	<ul style="list-style-type: none"> Potential need for project managers with greater digital fluency
	<ul style="list-style-type: none"> Continue deployment of digital solutions that shift customers to digital self-service through intuitive web- and app-based solutions for key journeys (e.g., bill payment, sign-up-and-move, outages) 	<ul style="list-style-type: none"> Q2-Q4 2023 	<ul style="list-style-type: none"> Customer: project management; acute sensitivity to customer needs Digital/Analytics: technical knowledge of digital technologies and customer needs Communications: ability to message key changes to customers 	<ul style="list-style-type: none"> Need to build digital/analytics team focused on implementation
	<ul style="list-style-type: none"> Collect data to track success of new technology rollout 	<ul style="list-style-type: none"> Q2-Q4 2023-2030 	<ul style="list-style-type: none"> Digital/Analytics: data collection, storage, and monitoring 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Refine and scale new practices, monitoring KPIs to validate impact 	<ul style="list-style-type: none"> Q4 2023-2030 	<ul style="list-style-type: none"> Digital/Analytics & Customer: knowledge of relevant technologies and specifications; effective communication with frontline teams 	<ul style="list-style-type: none"> Need to build digital/analytics team

SOURCE: Expert insights

1.15 Customer: deploy automation



Deploy automation

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Assemble a customer automation working team to spearhead this initiative	• Q4 2022	• Customer: project management	• Potential need for more project managers with black belt/exp. to implement strategy
	• Issue RFI for vendor (pre-contract) to help identify, size, and prioritize use cases	• Q4 2022	• Customer: contractor management • Procurement: vendor communications; experience in RFIs	• May require greater cross-functional collaboration between Customer/Procurement
	• Conduct assessment of opportunity areas and highest-value use cases (with contractor)	• Q4 2022	• Customer: project management	• Requires contractor support
	• Develop change management plan and communicate with customer workforce	• Q4 2022	• Customer: change management; effective communication with workforce	• Requires additional change management capabilities
	• Design a capability-building program for customer support workforce	• Q4 2022	• Customer: project management; talent development; workforce curriculum development	• Need to identify session leaders
Implementation	• Identify and negotiate contract with third-party providers of automation solutions, as well as business process outsourcing (BPO) ¹	• Q4 2022	• Customer: project management; technical knowledge • Procurement: excellence in negotiations and vendor selection, as well as knowledge of best providers of automation solutions and BPO	• May require greater cross-functional collaboration between Customer/Procurement
	• Launch end-to-end automation sprints, leveraging the appropriate automation solutions (e.g., RPA, machine learning, etc.)	• Q1-Q2 2023	• Customer: project management; change management • Digital/Analytics: technical knowledge of automation tools	• Potential need for more project managers with black belt experience to implement strategy • Need to build digital/analytics team
	• Develop infrastructure to provide ongoing automation support	• Q2-Q3 2023	• Digital/Analytics: technical knowledge of automation tools	• Need to build digital/analytics team
	• Monitor performance and impact and continue rollout of automation across customer BU	• Q4 2023-2030	• Customer: project management	• Potential need for more project managers with black belt experience to implement strategy • Need to build digital/analytics team

¹ For further detail on procurement activities, see the strategic sourcing initiative

SOURCE: Expert insights

1.16 Customer: demand management

Demand management



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Perform diagnostic of existing analog meters, as well as market for smart meters	• Q3 2020	<ul style="list-style-type: none"> • Customer: knowledge of customer care best practices • Water: technical expertise in smart metering 	• May require greater technical expertise
	• Develop neighborhood-level rollout prioritization plan for smart meter deployment	• Q3 2020	<ul style="list-style-type: none"> • Water: technical expertise in smart metering; route planning 	• May require greater technical expertise
	• To address short-term needs for manual reads, develop integrated WMS/route plan to improve work planning and optimize deployment of personnel based on skill level relative to task (i.e., match less-skilled workers to basic jobs) through analog improvements or technical overhaul	<ul style="list-style-type: none"> • Q3 2020 - analog changes to scheduling • Q3 2020- Q3 2023 - full technical overhaul 	<ul style="list-style-type: none"> • Water/Customer: work planning; route planning; scheduling • Digital/Analytics: knowledge of WMS/route planning software and tools; technical expertise 	• Need to build digital/analytics team
	• Develop plan for improved controls to reduce spend for reverification activity in meter reads	• Q3 2020	<ul style="list-style-type: none"> • Revenue: knowledge of best practices in billing QC • Water/Customer: knowledge of meter read protocols/routes 	• Revenue team may require additional resources
Implementation	• Develop control tower process to track spend on water meter reads and streamline spend authority	• Q4 2020	<ul style="list-style-type: none"> • Customer: project management; knowledge of team needs • Procurement: ability to provide commercial perspective as needed 	• Need to build digital/analytics team
	• Compile meter read data in a centralized database that allows for more effective decision-making	• Q4 2020-Q1 2021	<ul style="list-style-type: none"> • Customer: project management; database administration • Digital/Analytics: data architecture; data analysis 	• Need to build digital/analytics team
	• Deploy smart water meters to eliminate manual meter reading activities	• Q4 2020-Q3 2021 (or beyond)	<ul style="list-style-type: none"> • Water/Customer: project management; change management 	• Need project managers with experience in operational excellence/capital deployment
	• Upskill the customer services reps to reduce need for field visits and preempt the switch to smart water meters	• Q1 2021	<ul style="list-style-type: none"> • Customer: training skills; curriculum development 	• Customer team may require additional resources
	• After deployment of smart meters, measure reduced truck rolls by neighborhood	• Q3 2021-Q4 2030	<ul style="list-style-type: none"> • Water: technical expertise in smart metering; data analysis 	• Customer team may require additional resources

SOURCE: Expert insights

1.17 G&A: maximize organizational effectiveness



Maximize organizational effectiveness

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Establish efficiency G&A working team or transformation office 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> G&A efficiency working team: project management; talent development 	<ul style="list-style-type: none"> Need to assemble ad hoc team
	<ul style="list-style-type: none"> Identify areas of overlap between the work G&A teams do 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> G&A efficiency working team: project management; work planning 	<ul style="list-style-type: none"> Potential need for more project managers with black belt/lean operations experience to implement strategy
	<ul style="list-style-type: none"> Host workshops to understand pain points and areas of overlap; map core processes and key activities G&A teams perform 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> G&A efficiency working team: effective communication with workforce; experience in organizational redesign 	<ul style="list-style-type: none"> Need to identify session leaders
Implementation	<ul style="list-style-type: none"> Based on bottom-up assessment, align on future-state organization structure that eliminates and addresses overlaps 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> G&A efficiency working team: lean operations and organizational redesign experience 	<ul style="list-style-type: none"> Potential need for more project managers with lean operations experience to implement strategy
	<ul style="list-style-type: none"> Communicate changes to relevant stakeholders 	<ul style="list-style-type: none"> Q3 2021-Q3 2022 	<ul style="list-style-type: none"> G&A efficiency working team: effective communication with workforce 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing

SOURCE: Expert insights

1.18 G&A: deploy automation



Deploy automation

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Assemble an automation working team to spearhead this initiative across G&A functions (e.g., Procurement, Finance, Legal), with representation from each 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> G&A team leaders: project management 	<ul style="list-style-type: none"> Potential need for more project managers with black belt/experience to implement strategy
	<ul style="list-style-type: none"> Issue RFI for vendor (pre-contract) to help identify, size, and prioritize use cases 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> Working team: contractor management Procurement: vendor communications; experience in RFIs 	<ul style="list-style-type: none"> May require greater cross-functional collaboration
	<ul style="list-style-type: none"> Conduct assessment of opportunity areas and highest-value use cases 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> Working team: project management 	<ul style="list-style-type: none"> Working team may require additional resources/coordination
	<ul style="list-style-type: none"> Develop change management plan and communicate with workforce 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> Working team: change management; effective communication with workforce 	<ul style="list-style-type: none"> Requires additional change management capabilities
	<ul style="list-style-type: none"> Design a capability-building program for workforce 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> Working team: project management; talent development; workforce curriculum development 	<ul style="list-style-type: none"> Need to identify session leaders
Implementation	<ul style="list-style-type: none"> Identify and negotiate contract with third-party providers of automation solutions, as well as business process outsourcing (BPO)¹ 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> Working team: project management; technical knowledge Procurement: excellence in negotiations and vendor selection, as well as knowledge of best providers of automation solutions and BPO 	<ul style="list-style-type: none"> May require greater cross-functional collaboration
	<ul style="list-style-type: none"> Launch end-to-end automation sprints, leveraging the appropriate automation solutions (e.g., RPA, machine learning, etc.) 	<ul style="list-style-type: none"> Q4 2022-Q1 2023 	<ul style="list-style-type: none"> Working team: project management; change management Digital/Analytics: technical knowledge of automation tools 	<ul style="list-style-type: none"> Potential need for more project managers with black belt experience to implement strategy Need to build digital/analytics team
	<ul style="list-style-type: none"> Develop infrastructure to provide ongoing automation support 	<ul style="list-style-type: none"> Q1-Q2 2023 	<ul style="list-style-type: none"> Digital/Analytics: technical knowledge of automation tools 	<ul style="list-style-type: none"> Need to build digital/analytics team
	<ul style="list-style-type: none"> Monitor performance and impact and continue rollout of automation across business units 	<ul style="list-style-type: none"> Q3 2023-2030 	<ul style="list-style-type: none"> Working team: project management 	<ul style="list-style-type: none"> Potential need for more project managers with black belt experience to implement strategy Need to build digital/analytics team

¹ For further detail on procurement activities, see the strategic sourcing initiative

SOURCE: Expert insights

1.19 G&A: Technology service (TS) delivery transformation

TS delivery transformation



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Building a bottom-up cost analysis of all IT resources and FTE responsibilities 	<ul style="list-style-type: none"> Complete – Q4 2019 	<ul style="list-style-type: none"> IT: financial management; technical understanding of TS needs across the organization 	<ul style="list-style-type: none"> May require additional technology skills
	<ul style="list-style-type: none"> Benchmark existing TS against industry best practices 	<ul style="list-style-type: none"> Q4 2019 	<ul style="list-style-type: none"> IT: understanding of utility peers' operational IT strategies 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Design a workforce strategy of the future 	<ul style="list-style-type: none"> Q4 2019 	<ul style="list-style-type: none"> IT: effective communication with workforce; technical understanding of TS needs across the organization 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
Implementation	<ul style="list-style-type: none"> Based on bottom-up assessment, realign resources to core competencies and/or other technology needs throughout the business 	<ul style="list-style-type: none"> Q1 2020 	<ul style="list-style-type: none"> IT: project management 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Begin strategic sourcing activities for TS solutions¹ 	<ul style="list-style-type: none"> Q1 2020 	<ul style="list-style-type: none"> Procurement: strategic sourcing 	<ul style="list-style-type: none"> Need to improve vendor management and governance capabilities
	<ul style="list-style-type: none"> Monitor TS delivery using digital and analytic tools, as well as user feedback (e.g. from qualitative surveys) to relevant teams across the organization 	<ul style="list-style-type: none"> Q1 2020 	<ul style="list-style-type: none"> IT: governance; project management 	<ul style="list-style-type: none"> May require establishment of a project management office (PMO)

¹ For further detail on procurement activities, see the strategic sourcing initiative

SOURCE: Expert insights

1.20 G&A: advanced supply chain



Advanced supply chain

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Develop working team to lead advanced supply chain efforts to optimize both warehouse efficiency and inventory	• Q1 2023	• Procurement: project management; talent development	• Need to assemble sub-team within larger procurement function
	• Conduct diagnostic of operational performance through site observations at warehouses	• Q1 2023	• Supply chain working team: experience observing sites and monitoring performance	• No major gaps identified; may require additional resourcing
	• Identify key levers for operational improvement at warehouses (e.g., work management systems, automation, waste reduction)	• Q1 2023	• Supply chain working team: supply chain expertise; strategic planning	• No major gaps identified; may require additional resourcing
	• Select new WMS and automation tools to improve warehouse efficiency	• Q1 2023	• Supply chain working team: experience observing sites and monitoring performance • IT: knowledge of system requirements and specs	• May require greater coordination between supply chain functions/IT
	• Conduct full diagnostic of inventory to determine its exact composition and size	• Q1 2023	• Supply chain working team: inventory management	• No major gaps identified; may require additional resourcing
	• Create a data lake with past usage data for inventory	• Q1 2023	• Advanced supply chain working team: inventory management • IT: data architecture; systems engineering	• Need to build digital/analytics team
	• Negotiate contracts for WMS and supply chain automation services	• Q1 2023	• Procurement: contract negotiation • IT/supply chain working team: knowledge of system technical specifications	• May require greater technical knowledge
Implementation	• Procure WMS and supply chain automation services ¹	• Q2 2023	• Procurement: vendor management • IT/supply chain working team: knowledge of system technical specifications	• May require greater technical knowledge
	• Deploy warehouse redesign and automation solutions as appropriate	• Q2-Q4 2023	• Supply chain working team: project management	• May require project managers with cross-functional capabilities
	• Determine optimal inventory and adjust purchasing accordingly	• Q2-Q4 2023	• Advanced supply chain working team: inventory management • Digital/Analysis: data handling and analysis	• May require improved inventory management capabilities
	• Implement appropriate controls (e.g., auto reorder logic) to ensure inventories are within the appropriate levels	• Q2-Q4 2023	• Advanced supply chain sub-team: inventory optimization; materials planning	• May require additional resources in supply chain team

¹ For further detail on procurement activities, see the strategic sourcing initiative

SOURCE: Expert insights

1.21 G&A: demand management



Demand management

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Conduct bottom-up diagnostic to identify areas of biggest spend (e.g., office supplies, furniture, subscriptions, etc.) for each G&A-related business unit (e.g., Finance, Legal) 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> G&A department leaders: managers with knowledge of day-to-day operations/unique plant design Finance: financial modeling; data analysis 	<ul style="list-style-type: none"> May require further centralized knowledge and coordination at department level
	<ul style="list-style-type: none"> Itemize overall spend across major categories and develop framework to define which work and materials are necessary 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> G&A department leaders: managers with knowledge of day-to-day operations/unique plant design 	<ul style="list-style-type: none"> May require further centralized knowledge and coordination at department level
	<ul style="list-style-type: none"> Assess optimal mix between contracted and insourced work (e.g., consider insourcing smaller projects) 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> G&A department leaders: knowledge of materials needs; work planning; understanding of labor contracts 	<ul style="list-style-type: none"> May require further centralized knowledge and coordination at department level
	<ul style="list-style-type: none"> Conduct deep-dive analyses to prioritize major categories for demand management depending on business unit needs 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> G&A department leaders: understanding of department/team needs; strategic planning 	<ul style="list-style-type: none"> May require additional resources for each department/business unit
	<ul style="list-style-type: none"> Develop strategy to control spend 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> G&A department leaders; Procurement: cross-functional strategic planning 	<ul style="list-style-type: none"> Requires cross-functional planning
Implementation	<ul style="list-style-type: none"> Stand up Spend Control Tower in each department with regular cadence of meetings and culture of "no" 	<ul style="list-style-type: none"> Q3 2021-2030 	<ul style="list-style-type: none"> G&A department leaders : project management; knowledge of team needs Procurement: ability to provide commercial perspective as needed 	<ul style="list-style-type: none"> Requires cross-functional team in each department with input from Procurement
	<ul style="list-style-type: none"> Deploy tiger teams to develop fact base, conduct market research, and reduce spend across priority categories 	<ul style="list-style-type: none"> Q4 2021-2030 	<ul style="list-style-type: none"> G&A department leaders: technical knowledge of spend categories; understanding of market for relevant materials Procurement: ability to provide commercial perspective as needed 	<ul style="list-style-type: none"> Requires cross-functional teams with subject matter expertise
	<ul style="list-style-type: none"> Undertake contractor spend reduction program 	<ul style="list-style-type: none"> Q4 2021 	<ul style="list-style-type: none"> G&A department leaders: work planning; understanding of day-to-day operating needs 	<ul style="list-style-type: none"> May require additional resources for each department/business unit
	<ul style="list-style-type: none"> Undertake rental equipment/supplies spend program 	<ul style="list-style-type: none"> Q4 2021 	<ul style="list-style-type: none"> G&A department leaders: fleet optimization; equipment management 	<ul style="list-style-type: none"> May require additional resources for each department/business unit

SOURCE: Expert insights

1.22 Strategic sourcing across business units



Strategic sourcing

Activities	Timing	Required Team(s)/Capabilities	Risk to manage
<ul style="list-style-type: none"> Develop a robust spending cube (i.e., analysis of current spend from variety of angles) 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Procurement: centralized repository knowledge of current organization-wide spend Finance: financial modelling; data analysis 	<ul style="list-style-type: none"> May require further centralized knowledge and coordination May require new cross-functional sourcing team
<ul style="list-style-type: none"> Develop categories that reflect existing spend patterns and exposure to specific suppliers (e.g., critical equipment; MRO; contractors; office supplies) 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Procurement: understanding of current agreements and suppliers across business units and activities; strategic planning; ability to collaborate cross-functionally 	<ul style="list-style-type: none"> Procurement team may require additional resources
<ul style="list-style-type: none"> Conduct preliminary sequencing of categories (e.g., prioritization based on current spend, contracts up for bid, etc.) 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Procurement: strategic planning; understanding of current agreements and suppliers across business units and activities 	<ul style="list-style-type: none"> Procurement team may require additional resources
<ul style="list-style-type: none"> Identify subject matter experts (SMEs) and create cross-functional working teams for each category 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Procurement: ability to collaborate and build relationships cross-functionally within organization 	<ul style="list-style-type: none"> Procurement team may require additional resources Requires creation of cross-functional working teams
<ul style="list-style-type: none"> Clarify legal/regulatory requirements for sourcing 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Regulatory/Legal: knowledge of relevant procurement regulatory and legal requirements 	<ul style="list-style-type: none"> Regulatory/legal teams may require additional resources
<ul style="list-style-type: none"> Conduct a supply market analysis for each category to build a fact base around most cost-effective suppliers 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Procurement, along with BU leads: knowledge of market for each spend category; technical knowledge 	<ul style="list-style-type: none"> Procurement team may require additional resources
<ul style="list-style-type: none"> Develop category strategy based on SME perspective and analyses 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Procurement: strategic planning 	<ul style="list-style-type: none"> Procurement team may require additional resources
<ul style="list-style-type: none"> Identify aspirational savings capture opportunity for every spend category 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Procurement: strategic planning Finance: centralized knowledge of organization-wide budgets 	<ul style="list-style-type: none"> May require cross-functional planning
<ul style="list-style-type: none"> Launch requests for information (RFIs) and improve data collection to refine prioritization 	<ul style="list-style-type: none"> Q3-Q4 2021 	<ul style="list-style-type: none"> Procurement: excellence in vendor communication; vendor workshops 	<ul style="list-style-type: none"> May require improved data collection process
<ul style="list-style-type: none"> Launch multi-level requests for proposal (RFP) and/or e-auctions to maximize savings within each category 	<ul style="list-style-type: none"> Q1-Q2 2022 	<ul style="list-style-type: none"> Procurement: expertise in RFPs; vendor management 	<ul style="list-style-type: none"> May require upskilling in e-auctions
<ul style="list-style-type: none"> Conduct negotiations with vendors 	<ul style="list-style-type: none"> Q2 2022 	<ul style="list-style-type: none"> Procurement: excellence in vendor negotiations 	<ul style="list-style-type: none"> May require further development of negotiation skills
<ul style="list-style-type: none"> Achieve principal agreement with vendor(s) 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> Procurement: excellence in vendor negotiations/contracts 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
<ul style="list-style-type: none"> Finalize and sign contract(s) 	<ul style="list-style-type: none"> Q3 2022 	<ul style="list-style-type: none"> Procurement: excellence in contracts Legal: knowledge of applicable contract law 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
<ul style="list-style-type: none"> Set up a systematic supplier management process (e.g., quarterly reviews) 	<ul style="list-style-type: none"> Q3 2022-2030 	<ul style="list-style-type: none"> Procurement: vendor communication; contract analysis 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing

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SOURCE: Expert insights

2.1 System Resiliency

Note: Currently testing with FTI for Florida-specific regulatory considerations

System Resiliency



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Define overall goals and metrics for capital investments in system resiliency	Q1 2020	• Energy/Water: business case analysis expertise; capital planning expertise; technical expertise	• No major gaps identified; may require additional resourcing
	• Conduct a detailed capital planning study to define the set of investments needed based on forecasted assessment of future needs and risks (e.g., microgrids; feeder upgrades)	Q1 2020	• Energy Planning/Water Planning: capital planning expertise	• May require contractors for resourcing or expertise in technology
	• Develop stakeholder engagement plan for regulators, employees, and ratepayers	Q1 2020	• Communications: Excellence in community engagement and stakeholder management • Energy/Water: technical knowledge	• Communications team may require additional resources
	• Develop regulatory case that demonstrates the benefits to ratepayers and determines proposed recovery mechanism, particularly in accordance with FPSC's planning requirements	Q2 2020	• Regulatory: understanding of potential benefits to rate payers, as well as implications for rate basing	• Current regulatory team may require additional resources, so contractor may be required
Pre-deployment implementation	• Secure regulatory approval and appropriate permits	Q3 2020	• Regulatory: prior experience developing rate filings and defending rate cases	• Current regulatory team may require additional resources
	• Decide on contract type and scope (e.g., fee structure, EPC vs construction)	Q3 2020	• Procurement: Excellence in contract design	• No major gaps identified; may require additional resourcing
	• Select contractor based on qualifications	Q3 2020	• Procurement: Excellence in vendor selection	• No major gaps identified; may require additional resourcing
	• Procure relevant technology in accordance with system resiliency plan	Q3 2020	• Procurement: Procurement expertise	• May need to develop technical expertise
Deployment	• Work with contractor to design projects that minimize total cost of ownership (TCO)	Q4 2020 – Q4 2030	• Energy/Water: project management; contractor management	• Requires project managers with expertise in contract/project mgmt. for complex capital projects
	• Monitor contractor activity based on agreed-upon deadlines and milestones	Q4 2020 – Q4 2030	• Energy/Water: project management; contractor management	• May require project managers with cross-functional capability
	• Ensure skills transfer between contractor and JEA	Q4 2020 – ongoing	• Energy: project management; talent development; technical expertise to develop curriculum alongside contractor	• May need to develop technical expertise alongside contractor
	• Maintain and service new infrastructural upgrades using a detailed, updated tracking system	Q4 2020 – ongoing	• Energy/Water: Technical knowledge of maintenance requirements • Digital/analytics: knowledge of data collection and storage	• May require field resource training, or outsourced maintenance • Need to build a digital/analytics team

SOURCE: Expert insights

2.2 Grid Flexibility



Grid Flexibility

	Activities	Timing ¹	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Define goals, metrics (e.g., reliability metrics, system costs, customer satisfaction), and key capabilities	Q1 2020	• Energy/Energy Planning: business case analysis expertise; capital planning; project controls	• No major gaps identified; may require additional resourcing
	• Conduct technical studies to determine specifications for equipment (e.g., what type of voltage regulators are available)	Q1 2020	• Energy/Energy Planning: technical engineering knowledge of grid components	• No major gaps identified; may require additional resourcing
	• Build a detailed capital plan for grid redesign to prioritize necessary investments based on forecasted assessment of future needs/risks (e.g., which feeders need upgrades, where to position line sensors)	Q2-Q3 2020	• Energy Planning: Capital planning; engineering expertise • Energy: project mgmt. in major capital projects; project controls • IT/OT: expertise in integrating and securing IT/OT systems	• May require contractors for resourcing or expertise in technology
	• Develop stakeholder engagement plan for regulators, employees, and ratepayers	Q2-Q3 2020	• Communications: Excellence in community engagement and stakeholder management • Energy: technical knowledge	• Communications team may require additional resources, so contractor may be required
	• Develop regulatory case that demonstrates the benefits to ratepayers and determines proposed recovery mechanism	Q3-Q4 2020	• Regulatory/Energy: prior experience developing rate filings/defending rate cases	• Regulatory team may require additional resources
Pre-deployment implementation	• Secure regulatory approval and appropriate permits	Q3 2020	• Regulatory: prior experience developing rate filings and defending rate cases • Environmental: permitting expertise	• Regulatory team may require additional resources • No major gaps identified; may require additional resourcing
	• Decide on contract type and scope (e.g., fee structure, EPC vs construction)	Q3 2020	• Procurement: Excellence in contract design	• No major gaps identified; may require additional resourcing
	• Select contractor based on qualifications relevant to project	Q3 2020	• Procurement: Excellence in vendor selection	• No major gaps identified; may require additional resourcing
	• Train linemen on working with new assets (e.g., self-healing systems)	Q3 2020	• Energy: Technical expertise to develop training curriculum	• May need to develop technical expertise
	• Procure relevant technology (e.g., capacitor banks, voltage regulators, control devices, new feeders) in accordance with plan	Q4 2020	• Energy/Procurement: Knowledge of new assets to create specs for sourcing	• May need to develop technical expertise
Implementation	• Work with contractor to design projects that minimize total cost of ownership (TCO)	Q4 2020 – Q4 2030	• Energy: Contractor management	• Need project managers w. contract mgmt. expertise
	• Monitor contractor activity based on agreed-upon deadlines and milestones	Q4 2020 – Q4 2030	• Energy: Contractor management	• Need project managers w. contract mgmt. expertise
	• Ensure skills transfer between contractor and JEA	Q4 2020 – ongoing	• Energy: project management; talent development; technical expertise to develop curriculum alongside contractor	• May need to develop technical expertise alongside contractor
	• Maintain and service new infrastructural upgrades using a detailed, updated tracking system	Q4 2020 – ongoing	• Energy: Technical knowledge of maintenance requirements • Digital/Analytics: knowledge of data collection and storage; integrated with existing IT plan	• May require field resource training, or outsourced maintenance • Need to integrate in IT strategy

¹ Pre-deployment implementation for certain activities can occur in tandem with later phases

SOURCE: Expert insights

2.3 Advanced Asset Management

Advanced Asset Management



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning ¹	• Define use cases/metrics for capital investments in advanced asset management software and hardware in line with creating O&M efficiencies	Q1 2020	<ul style="list-style-type: none"> • Digital/Analytics: business case analysis expertise; project management • Energy Planning/Water Planning: capital planning expertise 	• Need to build digital/analytics team
	• Determine relevant data architecture and overall vendor capabilities to support infrastructure through vendor workshops pre-RFP	Q1 2020	<ul style="list-style-type: none"> • Digital/Analytics: excellence in data architecture and software engineering • Energy Planning/Water Planning: knowledge of key pain points requiring AAM 	• Need to build digital/analytics team
	• Build a detailed capital plan for asset management that defines the set of investments needed based on infrastructural needs (e.g., transformer monitoring)	Q1 2020	• Energy Planning/Water Planning : Capital planning expertise	• May require contractor support
	• Develop stakeholder engagement plan for regulators, employees, and ratepayers	Q1 2020	<ul style="list-style-type: none"> • Communications: Excellence in community engagement and stakeholder management • Energy/Water: technical knowledge 	• May require contractors, but most capabilities likely in-house
	• Develop regulatory case that demonstrates the benefits to ratepayers and determines proposed recovery mechanism	Q2 2020	• Regulatory (with support from Energy/Water) : prior experience successfully developing rate filings and defending rate cases	• Current regulatory team may require additional resources, so contractor may be required
Pre-deployment implementation	• Secure regulatory approval	Q3 2020	• Regulatory : prior experience successfully developing rate filings and defending rate cases	• Current regulatory team may require additional resources
	• Decide on contract type and scope (e.g., fee structure, EPC vs construction)	Q3 2020	• Procurement : Excellence in contract design	• No major gaps identified; may require additional resourcing
	• Select contractor based on qualifications relevant to project	Q3 2020	<ul style="list-style-type: none"> • Procurement: vendor selection • Digital/Analytics: technical knowledge 	• No major gaps identified; may require additional resourcing
	• Procure relevant technology (e.g., digital sensors for transformer monitoring) and data architecture	Q3 2020	<ul style="list-style-type: none"> • Digital/Analytics & Energy/Water: technical expertise • Procurement: procurement expertise 	• May need to develop technical expertise
Implementation	• Work with contractor to design projects that minimize total cost of ownership (TCO)	Q4 2020 – Q4 2030	• Digital/Analytics : Contractor management	• Requires project managers with expertise in contract/project mgmt. for complex capital projects
	• Monitor contractor activity based on agreed-upon deadlines and milestones	Q1 2021 – Q4 2030	• Digital/Analytics : Contractor management; project management	• Need to build digital/analytics team
	• Ensure skills transfer between contractor and JEA	Q1 2021 – ongoing	• Water : project management; talent development; technical expertise to develop curriculum alongside contractor	• May need to develop technical expertise alongside contractor
	• Maintain and service new infrastructural upgrades using a detailed, updated tracking system	Q1 2021 – ongoing	• Digital/Analytics : knowledge of technical specifications	• Need to build digital /analytics team

¹ These three stages roughly correspond to the scoping, engineering, and execution phases, respectively, of a large capital deployment project

SOURCE: Expert insights

2.4 Septic Tank Phase Outs

Septic Tank Phase Outs



	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Review 22,000 priority tanks and develop deployment schedule based on location and need	Q4 2016	• Water Planning: business case analysis expertise; capital planning expertise	• May require contractor support
	• Develop path forward for remaining 43,000 tanks in conjunction with City	Q4 2016	• Water Planning: capital planning expertise	• May require contractor support
	• Identify cost-effective replacement alternatives to traditional gravity sewerage system (e.g., pressure sewers, vacuum sewers) and build financial models to reflect these alternatives	Q1-Q3 2017	• Water/Water Planning: technical expertise in sewerage • Digital/analytics: financial modeling	• Need to build digital/analytics team
	• Building off existing communication efforts, conduct outreach, including public hearings and information sessions, to provide affected communities with relevant information about septic tank replacement, and secure construction approval from 70% of property owners	Q1-Q2 2018	• Water/Water Planning: project management; community engagement • Communications: excellence in public service announcements and campaigns	• Current water and communications teams may require additional resources
Pre-deployment implementation	• Secure construction easing and other relevant permits for septic tank replacement and sewerage installation	Q2-Q3 2018	• Water/Water Planning: permitting expertise	• No major gaps identified; may require additional resourcing
	• Survey neighborhoods to locate property lines, other utility assets, and wetlands, in order to deploy sewerage lines	Q1 2019-Q1 2020	• Water: contractor management; engineering; surveying	• Requires contractor support
	• Design project boundary area based on Duval County Health Department's identified septic tank failure areas	Q3 2019-Q2 2020	• Water/Water Planning: mapping and surveying	• Requires contractor support
	• Procure sewerage pipes that replace septic tanks and fit design requirements	Q3 2019	• Procurement: technical knowledge of sewerage	• May require contractor support
Deployment	• Remove of septic tanks and install new sewerage infrastructure (or outsource removal/installation to contractor)	Q4 2020-2030	• Water: project management; contractor management	• Requires project managers with expertise in contract/project mgmt. for complex water capital projects
	• Ensure disposal of septic tanks and waste materials is in compliance with environmental, legal, and ethical standards	Q4 2020-2030	• Water/Regulatory: excellence in removal and disposal procedures and regulations	• May require contractor support and additional regulatory knowledge
	• Integrate new pipes to existing sewerage infrastructure within JEA service area	Q4 2020-2030	• Water: technical knowledge of specs of new and old infrastructure	• No major gaps identified; may require additional resourcing
	• Monitor sewerage system for issues and dispatch maintenance accordingly	Q4 2020-2030	• Water: excellence in monitoring upgraded systems (e.g., site visits)	• No major gaps identified; may require additional resourcing

SOURCE: JEA website; "Bilmore C Proposed Water and Sewer Improvement Project," January 26, 2017; "Beverly Hills Proposed Sewer Improvement Project," February 1, 2018. There are other priority areas with different timings, but Beverly Hills was identified as a proxy for the remainder of the project as it is already underway.

2.5 Alternative Water Supply



Alternative Water Supply

	Activities	Timing	Required Team(s)/Capabilities	Risk to manage
Implementation Planning	• Define overall goals and metrics for capital investments in alternative water supply	Q1 2024	• Water: business case analysis expertise	• No major gaps identified; may require additional resourcing
	• Analyze precedent within Florida for such initiatives and adopt best practices for JEA	Q1 2024	• Water/Business Development/Regulation: knowledge of Florida landscape for alternative water	• Need to build business development function
	• Create detailed assessment of water demand for North and South grid service areas and ensure that capital resources are allocated accordingly	Q1 2024	• Water: business case analysis expertise; capital planning expertise	• May require contractor support
	• Develop stakeholder engagement plan for regulators, employees, and ratepayers	Q1 2024	• Communications: Excellence in community engagement and stakeholder management • Energy/Water: technical knowledge	• May require contractors, but most capabilities likely in-house
	• Develop regulatory case that demonstrates the benefits to ratepayers and determines proposed recovery mechanism	Q2 2024	• Regulatory: prior experience developing rate filings and defending rate cases	• Regulatory team may require additional resources
Pre-deployment implementation	• Secure regulatory approval	Q3 2024	• Regulatory: prior experience successfully developing rate filings and defending rate cases	• Regulatory team may require additional resources
	• Select external partner for design and build of new infrastructure, and sign relevant contracts	Q4 2024	• Water: technical expertise to select partner • Procurement: excellence in negotiations; knowledge of landscape for alternative water supply	• Procurement team may require additional resources
	• Procure relevant materials	Q4 2024	• Procurement: procurement expertise	• No major gaps identified; may require additional resourcing
Deployment	• Contractor to begin installation of alternative water supply in North and South grid	Q1 2025-2030	• Water: project management	• Requires project managers with expertise in contract/project mgmt. for complex capital projects
	• Monitor contractor activity based on agreed-upon deadlines and milestones	Q1 2025-2030	• Water: contractor management	• No major gaps identified; may require additional resourcing
	• Ensure skills transfer between contractor and JEA through development of in-house operating experience with the 1MGD startup facility on the South Grid	Q4 2025-2030	• Water: project management to ensure coordination between contractor and JEA workforce; talent development; technical expertise to develop curriculum alongside contractor	• May need to develop technical expertise and coordination with contractor

SOURCE: Expert insights

3.1 Expand incentives for electric vehicles and chargers

Expand incentives for EVs/chargers



	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Determine appropriate rebate based on customer size and utilization through EV penetration potential analysis in service territory by customer segment, affordability, preferences, etc. 	<ul style="list-style-type: none"> Q2 2020 	<ul style="list-style-type: none"> Business Development: deep knowledge of Jacksonville market, as well as regional and national trends for consumer EV uptake 	<ul style="list-style-type: none"> Need to build business development function
	<ul style="list-style-type: none"> Develop regulatory case that demonstrates the benefits to ratepayers and determines proposed recovery mechanism (if necessary) 	<ul style="list-style-type: none"> Q2 2020 	<ul style="list-style-type: none"> Regulatory: understanding of potential benefits to rate payers, as well as implications for rate basing 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Design and structure program based on regulatory case and business development input 	<ul style="list-style-type: none"> Q2 2020 	<ul style="list-style-type: none"> Business Development: strategic planning expertise 	<ul style="list-style-type: none"> Need to build business development function
	<ul style="list-style-type: none"> Develop strategy to promote and market the opportunity to residential customers sub-segments, e.g., urban, semi-urban, low income, etc. 	<ul style="list-style-type: none"> Q2 2020 	<ul style="list-style-type: none"> Customer: deep awareness of customer priorities through market research and customer engagement; ability to lead customer focus groups 	<ul style="list-style-type: none"> Customer team may need additional expertise or resources
	<ul style="list-style-type: none"> Identify potential partners and onboard key stakeholders and experts to engage with them 	<ul style="list-style-type: none"> Q2 2020 	<ul style="list-style-type: none"> Business Development: ability to interface with EV stakeholders (e.g., car retailers; battery wholesalers; environmental groups/experts) 	<ul style="list-style-type: none"> Need to build business development function
Pre-deployment implementation	<ul style="list-style-type: none"> Secure regulatory approval to extend rebates and discounts to customers (if necessary) 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Regulatory: prior experience successfully developing rate filings and defending rate cases 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Develop agreements with partners identified during planning 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Business Development: expertise in negotiation and deal structuring 	<ul style="list-style-type: none"> Need to build business development function
Implementation	<ul style="list-style-type: none"> Acquire customers for rebate sign-ups through a targeted marketing and sales campaign through partnership with EV OEMs, dealerships, and retailers 	<ul style="list-style-type: none"> Q4 2020 – Q3 2025 	<ul style="list-style-type: none"> Customer: expertise in marketing and sales campaigns Business Development: cross-functional collaboration with customer team to ensure that partners can interface with customers 	<ul style="list-style-type: none"> Need to build business development function
	<ul style="list-style-type: none"> Administer program, processes rebates, performs regulatory reporting, provide customer service 	<ul style="list-style-type: none"> Q4 2020 – Q3 2025 	<ul style="list-style-type: none"> Energy: project management; billing/processing Regulatory: knowledge of reporting requirements for regulators 	<ul style="list-style-type: none"> No major gaps identified; may require additional resourcing
	<ul style="list-style-type: none"> Evaluate and analyze program effectiveness to strategically expand program 	<ul style="list-style-type: none"> Q4 2020 – Q3 2025 	<ul style="list-style-type: none"> Business Development: project management; monitoring and evaluation 	<ul style="list-style-type: none"> Need to build business development function

¹ Refers to calendar year

3.2 Build out public DC FAST & L2 charging

Build out public DC FAST/L2 charging



	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Identify addressable market for DC FAST/L2 installation based on bottom-up assessment of Jacksonville EV landscape, including EV penetration potential analysis in service territory by customer segment, affordability, preferences, etc. 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Business Development: deep knowledge of Jacksonville market, as well as regional and national trend for consumer EV uptake, and innovations in charging equipment 	<ul style="list-style-type: none"> Need to build business development function
	<ul style="list-style-type: none"> Determine optimal charger placement using advanced geospatial analytics and coordinate locations with city planners and regulators 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy: geospatial analysis; technical expertise to understand hardware specifications; urban planning 	<ul style="list-style-type: none"> May need to develop technical expertise
	<ul style="list-style-type: none"> Develop detailed regulatory filing plan and value proposition to ratepayers to submit to regulators (if necessary) 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Regulatory: understanding of potential benefits to rate payers, as well as implications for rate basing 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
	<ul style="list-style-type: none"> Plan deployment schedule and engineering requirements for charging infrastructure <ul style="list-style-type: none"> Analyze potential requirements to JEA grid that reflect the additional demand from EVs chargers 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Energy Planning: understanding of JEA's capital planning process and the necessary upgrades required for grid based on charging infrastructure load profile Energy: project management to coordinate investment plan and deployment 	<ul style="list-style-type: none"> May require project managers with cross-functional capability
Pre-deployment implementation	<ul style="list-style-type: none"> Secure regulatory approval to operate this business and earn regulated rate of return on capital, set EV charging rates, and sign formal partnership with City (if necessary) 	<ul style="list-style-type: none"> Q4 2020 – Q1 2021 	<ul style="list-style-type: none"> Regulatory: prior experience successfully developing rate filings and defending rate cases 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
	<ul style="list-style-type: none"> Source DC FAST/L2 chargers including determining optimal sourcing strategy <ul style="list-style-type: none"> Develop relationships with retailers of DC FAST/L2 charging equipment and negotiate contracts to serve as a preferred distributor; or Procure DC/FAST equipment directly from preferred manufacturers at lowest cost 	<ul style="list-style-type: none"> Q4 2020 – Q1 2021 	<ul style="list-style-type: none"> Business Development: knowledge of DC FAST/L2 charging market and ability to communicate plan across functions Procurement: procurement expertise; contract negotiation; cross-functional collaboration with business development team 	<ul style="list-style-type: none"> Need to build business development function May need to develop technical expertise
Implementation	<ul style="list-style-type: none"> Install DC FAST/L2 equipment or outsource installation to contractors 	<ul style="list-style-type: none"> Q2 2021 - 2030 	<ul style="list-style-type: none"> Energy: technical knowledge of charging infrastructure Procurement: contractor management 	<ul style="list-style-type: none"> May require field resource training, or outsourced deployment
	<ul style="list-style-type: none"> Maintain and service equipment or outsource maintenance to contractor 	<ul style="list-style-type: none"> Q2 2021 - 2030 	<ul style="list-style-type: none"> Energy: technical knowledge of charging infrastructure and required maintenance; contractor management 	<ul style="list-style-type: none"> May need to outsource maintenance

¹ Refers to calendar year

Own and operate bus charging infrastructure for Jacksonville's city and public school fleet

Own and operate bus charging infrastructure for Jacksonville's city and public school fleets



	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Develop regulatory case that demonstrates the benefits to ratepayers and determines proposed recovery mechanism (if necessary) <ul style="list-style-type: none"> Incorporate full potential benefits of tax incentives for bus electrification Determine agreement to use operational data from buses to plan future investments 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Regulatory: understanding of potential benefits within the current regulatory environment, as well as implications for rate basing Regulatory/Legal: understanding of implications of data usage and privacy regulations 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
	<ul style="list-style-type: none"> Select strategic locations in which to install bus charging infrastructure <ul style="list-style-type: none"> Coordinate locations with city planners and regulators 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Business Development: deep local knowledge of Jacksonville geography and real estate Business Development: geospatial analytics planning 	<ul style="list-style-type: none"> Need to build business development function Need to integrate with data and analytics strategy
	<ul style="list-style-type: none"> Decide method of installation and maintenance (e.g., contract or self-install) 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Procurement/Supply Chain: conduct sourcing analysis Business Development: analysis for business case 	<ul style="list-style-type: none"> Need to build business development function
	<ul style="list-style-type: none"> Plan deployment schedule and engineering requirements for investment <ul style="list-style-type: none"> Integrate with capital deployment plans for distribution grid upgrades to ensure bus charger demand is supported 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Energy Planning: understanding of JEA's capital planning process and the necessary upgrades required for grid based on charging infrastructure load profile Project Management: cross-functional project manager who can coordinate investment plan and deployment 	<ul style="list-style-type: none"> May require project managers with cross-functional capability
Pre-deployment implementation	<ul style="list-style-type: none"> Secure regulatory approval (if necessary) 	<ul style="list-style-type: none"> Q2 2022 	<ul style="list-style-type: none"> Regulatory: experience developing rate filings and defending rate cases 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
	<ul style="list-style-type: none"> Assist City in procuring bus charging infrastructure for the right vehicles 	<ul style="list-style-type: none"> Q2 2023 	<ul style="list-style-type: none"> Procurement: knowledge of best electric bus infrastructure providers; contract negotiation; contractor management 	<ul style="list-style-type: none"> May need to develop technical expertise
Implementation	<ul style="list-style-type: none"> Install bus charging infrastructure across the City of Jacksonville (or contractor to begin installation) 	<ul style="list-style-type: none"> Q4 2021 - 2030 	<ul style="list-style-type: none"> Energy: technical knowledge of bus charging infrastructure and its component parts Energy: contractor/project management 	<ul style="list-style-type: none"> May require training of field workers to install chargers
	<ul style="list-style-type: none"> Maintain bus charging infrastructure 	<ul style="list-style-type: none"> Q4 2021 – ongoing 	<ul style="list-style-type: none"> Energy: technical knowledge of bus charging infrastructure and its component parts Procurement: contractor management if outsourced 	<ul style="list-style-type: none"> May need to develop technical expertise May require field resource training, or outsourced deployment
	<ul style="list-style-type: none"> Use operational data on ridership, charge times, and distance traveled on buses to help plan future investments 	<ul style="list-style-type: none"> Q1 2024 - ongoing 	<ul style="list-style-type: none"> Energy Planning: analytics & data management 	<ul style="list-style-type: none"> Need to incorporate with existing data and analytics strategy

¹ Refers to calendar year

3.4 Build an L2 home charger installation business

L2 home charger installation business



	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Build regulatory case for approval of unregulated business alongside regulated business 	<ul style="list-style-type: none"> Q3 2020 	<ul style="list-style-type: none"> Regulatory: understanding of distinct implications of unregulated business activities for JEA, the City of Jacksonville, and ratepayers 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
	<ul style="list-style-type: none"> Identify addressable market for L2 installation based on bottom-up assessment of Jacksonville EV landscape through EV penetration potential analysis in service territory by customer segment, affordability, preferences, etc. 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Business Development: deep knowledge of Jacksonville market, as well as regional and national trends for consumer EV uptake Customer: customer insight analytics; ability to lead focus groups and customer research sessions 	<ul style="list-style-type: none"> Need to build business development function May need to develop additional analytics capabilities in customer
Pre-deployment implementation	<ul style="list-style-type: none"> Secure regulatory approval to operate unregulated L2 installation business alongside regulated business 	<ul style="list-style-type: none"> Q4 2020 	<ul style="list-style-type: none"> Regulatory: experience developing filings for unregulated offerings 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
	<ul style="list-style-type: none"> Develop relationships with retailers of L2 home charging equipment and negotiate contracts to serve as a preferred distributor 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Procurement: expertise in contract negotiation and vendor selection 	<ul style="list-style-type: none"> May need to develop technical expertise
	<ul style="list-style-type: none"> Develop strategy to promote and market the opportunity to residential customers sub-segments, e.g., urban, semi-urban, low income, etc. 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Customer: deep awareness of customer priorities through market research and customer engagement; experience developing marketing/sales campaigns 	<ul style="list-style-type: none"> Need to ensure customer team is equipped with right knowledge and resources (financial/personnel)
	<ul style="list-style-type: none"> Include initiative in overall communications strategy as an example of JEA commitment to innovation and decarbonization 	<ul style="list-style-type: none"> Q1 2021 	<ul style="list-style-type: none"> Communications: ability to communicate value to all stakeholders in the community (e.g., customers, City of Jacksonville, JEA), as well as environmental benefit 	<ul style="list-style-type: none"> Current communications team may require additional resources for new projects
Implementation	<ul style="list-style-type: none"> Install L2 home chargers across City of Jacksonville (or outsource to contractor) 	<ul style="list-style-type: none"> Q2 2021 - ongoing 	<ul style="list-style-type: none"> Energy: experience installing required L2 equipment Procurement: contractor management 	<ul style="list-style-type: none"> May require field resource training, or outsourced deployment
	<ul style="list-style-type: none"> Bill customers for L2 installation, integrating charges into regular utility bills 	<ul style="list-style-type: none"> Q2 2021 - ongoing 	<ul style="list-style-type: none"> Customer: billing/invoicing 	<ul style="list-style-type: none"> May require new unregulated billing process/ team
	<ul style="list-style-type: none"> Maintain charging infrastructure 	<ul style="list-style-type: none"> Q2 2021 - ongoing 	<ul style="list-style-type: none"> Energy: technical knowledge of bus charging infrastructure and its component parts Procurement: contractor management if outsourced 	<ul style="list-style-type: none"> May need to develop technical expertise May require field resource training, or outsourced deployment

¹ Refers to calendar year

3.5 Electrify the Port of Jacksonville

Electrify the Port of Jacksonville



	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	• Evaluate and prioritize non-road and facility electrification opportunities, including but not limited to the Port of Jacksonville	• Q2 2022	• Business Development: advanced financial modelling; knowledge of the market for non-road electrification	• Need to build business development function
	• Work with Port of Jacksonville (and any stakeholders for identified opportunities) to conduct diagnostic	• Q2 2022	• Business Development: advanced financial modelling; knowledge of the market for non-road electrification	• Need to build business development function
	• Develop detailed regulatory filing that demonstrates value proposition to rate-payers and proposed recovery mechanism (if necessary) <ul style="list-style-type: none"> – Fully assess financial implications of port project for JEA as input for regulatory filing, using California and non-U.S. examples as benchmarks 	• Q2 2022	• Regulatory: understanding of potential benefits to rate payers, as well as implications for rate basing • Business Development: advanced financial modelling; knowledge of the market for non-road electrification	• Regulatory team may require additional expertise or resources • Need to build business development function
	• Determine right mix of electric equipment for port needs (e.g., HV machinery vs. fully battery-powered) and the related implications to infrastructure	• Q2 2022	• Energy: deep technical understanding of port infrastructure and non-road electrification • Energy Planning: ability to ensure capital allocations to right projects	• May need to develop technical expertise
	• Plan deployment schedule and engineering requirements for charging infrastructure and any necessary grid upgrades	• Q2 2022	• Energy Planning: familiarity with overall grid technology and needs; understanding of implications for rate base	• May need to develop technical expertise
Pre-deployment implementation	• Secure regulatory approval (if necessary)	• Q3 2022	• Regulatory: experience developing rate filings and defending rate cases	• Regulatory team may require additional expertise or resources
	• Develop partnerships with stakeholders (e.g., port authority, users) to coordinate electrification (e.g., ensure procurement of electric port equipment matches proposed timeline for charging infrastructure installation)	• Q3 2022	• Business Development: developing relationships with multiple stakeholders, with acute understanding of their priorities • Energy Planning: understanding of JEA's capital planning process	• Need to build business development function
	• Negotiate and sign agreements with Jacksonville Port Authority (JAXPORT) to begin electrification	• Q4 2022	• Business Development: expertise in negotiation and deal structuring	• Need to build business development function
	• Include initiative in overall communications strategy as an example of JEA commitment to innovation and decarbonization	• Q4 2022	• Communications: ability to communicate value to all stakeholders in the community (e.g., customers, City of Jacksonville, JEA), as well as environmental benefit	• Current communications team may need additional resources
Implementation	• Procure equipment (e.g., non-road electric cranes, cabling, autonomous electric trucks) required specifications	• Q4 2022	• Procurement: expertise in procurement, with experience in non-road electrification equipment	• May need to develop technical expertise
	• Install charging infrastructure at Port of Jacksonville or outsource installation to contractor	• Q1 2023 - 2030	• Energy: experience installing required equipment • Procurement: contractor management	• May require field resource training, or outsourced deployment

¹ Refers to calendar year

3.6 Install, own, and dispatch behind the meter DG storage



Behind the meter DG storage

	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	• Identify addressable market for behind-the-meter (BTM) installation based on bottom-up assessment of Jacksonville residential landscape	• Q3 2020	• Business Development: deep knowledge of Jacksonville market, as well as regional and national trend for consumer BTM uptake	• Need to build business development function
	• Develop regulatory case that demonstrates the benefits to ratepayers and determines proposed recovery mechanism (if necessary)	• Q3 2020	• Regulatory: understanding of potential benefits to rate payers, as well as analysis of potential recovery mechanisms	• Regulatory team may require additional expertise or resources
	• Analyze potential requirements to JEA grid that reflect integration of potential BTM storage	• Q3 2020	• Energy Planning: understanding of JEA's capital planning process and the necessary upgrades based on charging infrastructure load profile	• May need to develop technical expertise
	• Integrate plan for BTM storage deployment with capital deployment plans for distribution grid upgrades	• Q3 2020	• Energy Planning: understanding of JEA's capital planning process	• May require additional capital planning support from contractor(s)
Pre-deployment implementation	• Secure regulatory approval (if necessary)	• Q4 2020	• Regulatory: experience developing rate filings and defending rate cases	• Regulatory team may require additional expertise or resources
	• Acquire residential customers for sign-up through targeted marketing/sales campaign	• Q4 2020 – Q1 2021	• Customer: expertise in marketing and sales campaigns; awareness of customer needs	• May require knowledge specific to DG storage
Implementation	• Procure equipment and control software	• Q1 2021	• Procurement: expertise in procurement	• May require knowledge specific to DG storage
	• Include initiative in overall communications strategy as an example of JEA commitment to innovation and decarbonization	• Q2 2021	• Communications: ability to communicate value to all stakeholders in the community (e.g., customers, City of Jacksonville, JEA), as well as environmental benefit	• Current communications team may require additional resources for new projects
	• Install BTM storage in residential units across the Jacksonville area (or outsource installation to contractor)	• Q2 2021 – 2030	• Energy: experience installing required BTM equipment • Procurement: contractor management	• May require field resource training, or outsourced deployment
	• Administer program (e.g., bill customers for BTM services, integrating charges into regular utility bills, provide customer service)	• Q2 2021 – 2030	• Energy: project management; cross-functional collaboration with customer and billing teams	• No major gaps identified; may require additional resourcing if regulated program
	• Run system through remote access, monitor and collect performance data, and maintain system	• Q2 2021 – 2030	• Energy: project management; technical knowledge of system needs and components of DG storage • Digital/Analytics: technical knowledge of data collection	• May require field resource training, or outsourced maintenance
	• Collect and store customer data safely to ensure improvements in service and reliability for batteries	• Q2 2021 – 2030	• Energy/Data & Analytics: technical knowledge of data collection and storage • Regulatory/Legal: familiarity with data privacy regulations	• Need to build data/ analytics team and incorporate with existing strategy

¹ Refers to calendar year

3.7 Build a DG solar installation business for industrial customers

Build DG solar installation business



	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	<ul style="list-style-type: none"> Develop detailed business case <ul style="list-style-type: none"> Define geographic scope of initiative (e.g., within or without Jacksonville) and segment customers appropriately (e.g., manufacturing, urban office space, large retailers, hospitals, etc.) Determine financing agreement (e.g., PPA, savings sharing) 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Business Development: deep knowledge of Jacksonville C&I market, as well as regional and national trends for consumer DG solar installation Business Development: expertise in negotiation and deal structuring 	<ul style="list-style-type: none"> Need to build business development function
	<ul style="list-style-type: none"> Build regulatory case for approval of unregulated business alongside regulated business 	<ul style="list-style-type: none"> Q2 2021 	<ul style="list-style-type: none"> Regulatory: understanding of distinct implications of unregulated business activities for JEA, the City of Jacksonville, and ratepayers 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
Pre-deployment implementation	<ul style="list-style-type: none"> Secure regulatory approval 	<ul style="list-style-type: none"> Q3 2021 	<ul style="list-style-type: none"> Regulatory: experience developing filings for unregulated offerings 	<ul style="list-style-type: none"> Regulatory team may require additional expertise or resources
	<ul style="list-style-type: none"> Include initiative in overall communications strategy as an example of JEA's commitment to innovation and decarbonization 	<ul style="list-style-type: none"> Q4 2021 	<ul style="list-style-type: none"> Communications: ability to communicate value to all stakeholders in the community (e.g., customers, City of Jacksonville, JEA), as well as environmental benefit 	<ul style="list-style-type: none"> Communications team may need resources for new projects
Implementation	<ul style="list-style-type: none"> Market and sell DG solar services to customers in the Greater Jacksonville Area through new and existing channels 	<ul style="list-style-type: none"> Q1 2022 – ongoing 	<ul style="list-style-type: none"> Customer: acute awareness of C&I customer needs and preferences; sales competencies specific to C&I customers 	<ul style="list-style-type: none"> Need to ensure customer team is equipped with right knowledge and resources (financial/personnel)
	<ul style="list-style-type: none"> Install DG solar equipment (or outsource installation to contractor) 	<ul style="list-style-type: none"> Q1 2022 – ongoing 	<ul style="list-style-type: none"> Energy/new team: experience installing required DG equipment Procurement: contractor management 	<ul style="list-style-type: none"> May require field resource training, or outsourced deployment May require separate unregulated business unit team
	<ul style="list-style-type: none"> Administer program and bill customers 	<ul style="list-style-type: none"> Q1 2022 – ongoing 	<ul style="list-style-type: none"> Energy/new team: project management; cross-functional collaboration with customer and billing teams 	<ul style="list-style-type: none"> May require separate unregulated business unit and customer team
	<ul style="list-style-type: none"> Maintain and service DG solar equipment 	<ul style="list-style-type: none"> Q1 2022 – ongoing 	<ul style="list-style-type: none"> Energy: technical knowledge of DG infrastructure Procurement: contractor management 	<ul style="list-style-type: none"> May require field resource training, or outsourced maintenance
	<ul style="list-style-type: none"> Collect and store customer data safely to ensure improvements in service and reliability 	<ul style="list-style-type: none"> Q1 2022 – ongoing 	<ul style="list-style-type: none"> Energy/Data & Analytics: technical knowledge of data collection and storage Regulatory/Legal: familiarity with data privacy regulations 	<ul style="list-style-type: none"> Need to build data/analytics team and incorporate with existing strategy

¹ Refers to calendar year

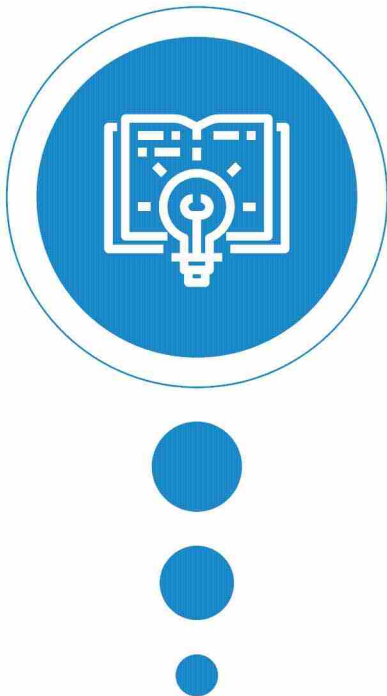
Install “smart poles,” building on JEA’s existing “smart streetlights” program

Smart poles

	Activities	Timing ¹	Required team(s)/capabilities	Risk to manage
Implementation Planning	• Develop phased roadmap to prioritize streetlights for upgrade	Q4 2021– Q1 2022	• Energy Planning: geospatial analytics; understanding of JEA’s capital planning process	• Need to build geospatial analytics capabilities
	• Develop plan for use cases and functionalities for data collected	Q4 2021	• Digital/Analytics: excellence in data science; industry experience in telecom	• Need to build data/analytics team
	• Assess potential for 5G on poles and other JEA assets	Q4 2021	• Energy Planning: industry experience in telecom	• May require telecom expertise
	• Develop business model for telecom including an assessment of potential partners and regulatory considerations	Q4 2021	• Business Development: industry experience in telecom • Regulatory: expertise in telecommunications related regulations	• Need to build business development function • May need telecom expertise
	• Plan deployment schedule and engineering requirements for project	Q4 2021	• Energy Planning: capital planning; work planning; project management	• May need contractor support
	• Integrate data needs into existing or planned data architecture and strategy	Q4 2021- Q1 2022	• Digital/Analytics: understanding of data architecture and new system compatibility with existing infrastructure	• Need to build data/analytics team
	• Develop regulatory case that demonstrates the benefits including 5G to ratepayers and determines proposed recovery mechanism (if necessary)	Q4 2021– Q1 2022	• Regulatory: understanding of potential benefits to rate payers, as well as implications for rate basing	• Regulatory team may require additional expertise or resources
Pre-deployment implementation	• Secure regulatory approval for continuation of “smart streetlights” program, addition of new cellular and 5G infrastructure on existing poles, and data usage (if necessary)	Q2 2022	• Regulatory: experience developing rate filings and defending rate cases	• Regulatory team may require additional expertise or resources
	• Deploy pilot installation to test hardware installation and data transmission	Q4 2021– Q1 2022	• Energy & Digital/Analytics: knowledge of technical specifications for pilot	• May require contractor support
	• Include initiative in overall community communications strategy	Q2 2022 - 2030	• Communications: ability to communicate value to all stakeholders in the community (e.g., customers, City of Jacksonville, JEA), as well as environmental benefit	• Communications team may need resources for new projects
	• Procure hardware and “smart” module, along with additional multifaceted nodes that include cellular service, WiFi, EV charging stations, and crime sensors	Q2 2022 – Q4 2022	• Procurement: expertise in procurement, as well as industry knowledge of nodal technology and smart poles	• May need to develop technical expertise
Implementation	• Secure partnerships with cellular and telecom companies that can expand service offerings (e.g., Ericsson’s partnership with Los Angeles)	Q2 2022 – Q3 2022	• Business Development: ability to articulate value proposition to non-utility partners • Business Development: expertise in marketing/sales	• Need to build business development function
	• Upgrade poles in order of priority (or outsource installation to contractor)	Q4 2022 - 2030	• Energy: experience installing poles • Procurement: contractor management	• May require field resource training, or outsourced deployment
	• Maintain and service poles, and ensure that all poles are included in asset management system	Q4 2022 - 2030	• Energy: technical knowledge of pole infrastructure • Procurement: contractor management	• May require field resource training, or outsourced maintenance
	• Ensure safe collection and storage of data by City and third parties	Q4 2022 - 2030	• Regulatory/Legal: familiarity with data privacy regulations, and ability to offer guidance to City	• Regulatory team may require additional expertise or resources; may require training on data handling requirements

Table of Contents

 Detail to follow



About this document

An overview of the approach and guidelines to JEA's strategy development

Strategic aspirations for JEA

2030 Vision for JEA across strategic pillars (customer, environmental, community, financial), with metrics outlined for each pillar; summary of how strategic initiatives will achieve financial and non-financial metrics

Operational improvements

Redesign of JEA's operating practices to achieve top-quartile performance as measured against JEA's peer set

Strategic capital investments

Investments in traditional utility infrastructure to deliver new outcomes and benefits to our customers (e.g. customer resiliency, grid flexibility and customer choice, clean and sustainable, etc)

Core growth opportunities

Investments in new growth businesses core to the utility model: transport electrification, energy efficiency, distributed generation

Additional growth opportunities

Additional growth initiatives that position JEA as a growth platform that are currently not included in the financial projections

Next steps

Next steps to build capabilities and execute strategy

Appendix 1: Initiative charters and supporting analyses

Further detail on the strategic and financial objectives for each new initiative

Appendix 2: Next steps on implementation

Critical next steps to drive implementation of the strategic plan

Appendix 3: Organizational health initiatives

Actions JEA will undertake to improve its organizational health



Appendix 3

Organizational Health Initiatives

Research has identified 4 signature recipes of organizational health

xx%

Percentage of organizations in our database that fit into each recipe



JEA target archetype



Leadership Factory

~20%

Performance driven by pipeline of strong leaders developed through coaching, formal training and the right growth opportunities



Market Shaper

~30%

Focus on customer and competitive insights, coupled with keen financial acumen and operational management to drive innovation and shape the market



Quicken

amazon



Execution Edge

~40%

Gain competitive edge by involving all employees in sharing knowledge and innovating, supported by codified processes and clear roles

WAL*MART

Southwest



THE RITZ-CARLTON®



Talent and Knowledge Core

~10%

Key value creators are knowledge and expertise, achieved by identifying, attracting and providing opportunities to top talent

Goldman Sachs

NETFLIX

McKinsey&Company

Like Olympic athletes, the recipes emphasize different strengths, but all recipes work to get top-quartile organizational health

SOURCE: Organizational Health Index Global Database

JEA's SLT has prioritized implementing practices that support the "Market Shaper" recipe

Top 10 practices by recipe

■ Practices prioritized by SLT

Leadership Factory	Market Shaper	Execution Edge	Talent and Knowledge Core
1 Risk management	Capturing external ideas	Performance transparency	Career opportunities
2 Personal ownership	External partnerships	Employee involvement	Talent acquisition
3 Challenging leadership	Role clarity	Creative & entrepreneurial	Rewards & recognition
4 Career opportunities	Customer focus	Consequence management	Personal ownership
5 Performance contracts	Top-down innovation	Capturing external ideas	Knowledge sharing
6 Open and trusting	Competitive insights	Rewards & recognition	Talent development
7 Supportive leadership	Gov't/community relations	Financial incentives	Meaningful values
8 Financial management	Operationally disciplined	Knowledge sharing	Inspirational leaders
9 Shared vision	Bottom-up innovation	Bottom-up innovation	Challenging leadership
10 Financial incentives	Operational management	Top-down innovation	People performance review

Market Shaper practices will be linked with current and future actions to ensure adoption

● Detail follows ■ JEA method for practice adoption ■ Prioritized “market shaper” practices



Actions JEA is undertaking through current effort



Additional steps to be taken to achieve “Market Shaper” profile

1

Develop our 2030 strategic plan with supporting initiatives

Strategic Clarity

2

Identify partners to provide strategic flexibility

External Partnerships

A

Expand JEA’s innovation capabilities

Top-down Innovation

Increase the velocity of innovation through formal structure to foster new ideas for products and services

Competitive Insights

Expand our ability to **generate and share insights** across the business that integrate into, and improve, our decision-making ability

B

Accelerate our emphasis on customer experience

Customer Focus

Provide industry-leading **customer experiences** and leverage customer satisfaction to build new businesses throughout Northeast Florida

C

Integrate new ways of working into our operational transformation

Role Clarity

Define all roles in **terms of business needs** with clear objectives, tasks, inputs, outputs and responsibilities

Personal ownership

Empower team members to **take ownership** in solving problems and train leaders to focus on managing through objectives, developing trust and driving accountability

Bottom-up Innovation

Encourage employees to **explore creative opportunities** and equip them to structure an improvement idea and communicate its business impact

Knowledge Sharing

Facilitate **knowledge sharing** throughout the business while also looking beyond JEA for solutions and inspiration

A Expand JEA's innovation capabilities

Details

Vision 2030

- **JEA increased the velocity of innovation** through new capabilities to understand the energy and water marketplace, generate competitive insights, and foster new ideas for products and services
- Our central innovation team has a dedicated competitive insights group that continuously performs proactive strategic analyses that result in specific insights and recommendations
- Our business leaders **use insights to make critical decisions** regarding service enhancements, operational improvements, and competitive moves
- Access to high-quality business information is also a critical input to our annual budget process where there is a **dedicated process to identify innovation projects** that have additional support from across the business

Strategic priorities (Next three years)

Dedicate an innovation budget

- **Assign a yearly budget dedicated to innovation** and evaluate its use for idea creation, execution, and return on investment

Develop an innovation incubator

- **Create a formal system** for presenting and evaluating new ideas that receiving additional design and implementation support

Launch a competitive insights function

- **Establish dedicated capabilities** to generate competitive insights, disseminate them across the business, and measure their impact¹

Strengthen the innovation muscle

- **Integrate innovation best practices** into training programs and coaching practices at every level of the organization.

Quick wins (Next six months)²

Make the case for innovation

- **Host a Utility of the Future workshop** for managers from across the business

Celebrate progress

- **Identify innovative projects and analysis** across the business and recognize it during staff meetings, company emails, and public-facing material

Designate leaders

- **Designate a senior leader** responsible for coordinating the development and dissemination of competitive insights to the Senior Leadership Team

Integrate into daily cadence

- **Dedicate time** during Senior Leadership Team meetings to present and discuss new ideas

To achieve this:

- JEA's chief innovation officer will lead development of central capabilities (e.g., competitive insights group) and formal processes (e.g., innovation pipeline)
- Supporting innovation culture will be a shared responsibility of the Senior Leadership Team

¹ Additional implementation planning necessary to size the resourcing needs and determine implementation costs and recurring O&M costs.

² Some may be in process

B Accelerate our emphasis on customer experience

Details

Vision 2030

- **JEA is recognized as an industry leader in customer experience** and has successfully leveraged its strong customer satisfaction to build new businesses throughout Northeast Florida
- Customer experience team continues to be the nexus of our customer-centric approach, leading research on the needs and desires of different customer segments, measuring customer satisfaction, and linking our performance to overall value
- **We set clear targets for customer satisfaction** that are actionable, meaningful, and tailored to every level of the business from our CEO to frontline employees
- All **customer facing employees are encouraged and empowered** to respond directly to customer needs with clear decision rights that enable them to confidently find solutions whether in the field or in a customer care center

Strategic priorities (Next three years)

Know our customers	<ul style="list-style-type: none"> • Establish programs to ensure employees can gain direct exposure to customers (e.g., rotation program, ride-alongs, CEO site visits)
Redesign customer journeys	<ul style="list-style-type: none"> • Identify the most important customer journeys and comprehensively redesign them to remove pain points and create a delightful experience²
Empower employees to take action	<ul style="list-style-type: none"> • Ensure employees have autonomy and decision rights to solve customer needs expediently or quickly escalate the issue to a colleague for resolution
Link customer experience to employee performance	<ul style="list-style-type: none"> • Integrate customer experience into the employee performance evaluation process to reward customer champions and provide coaching and support where needed

Quick wins (Next six months)¹

Establish a CSAT metric	<ul style="list-style-type: none"> • Design and launch a Customer Satisfaction (CSAT) metric that will serve as the foundation for measuring progress in JEA's customer experience
Develop a metrics cascade	<ul style="list-style-type: none"> • Identify the key drivers of customer satisfaction at the BU and team level, develop metrics for measuring improvement, set targets, and begin regularly collecting and reporting progress
Foster conviction in great customer experiences	<ul style="list-style-type: none"> • Share examples of great customer experience in employee town halls, internal communications, and public facing documents
Develop performance dialogues	<ul style="list-style-type: none"> • Identify the questions that managers, directors, and executives can ask to identify constraints and drive improvement against each metric

To achieve this:

- JEA's chief customer experience officer will drive the design and implementation of customer satisfaction metrics and customer journey design
- Operational business leaders will set targets and performance dialogues for their businesses
- Supporting a customer-centric culture will be a shared responsibility of the Senior Leadership Team

¹ Some of these are in process

Integrate new ways of working into our operational transformation

Details

Vision 2030

- JEA launched its operational transformation with a **comprehensive training program that established a new way of working** centered on role clarity, personal ownership, bottom-up innovation, and knowledge sharing
- Every team began their transformation by **clearly defining individual roles**, harmonizing those roles with colleagues across the business, and establishing consistent lines of accountability
- Leaders received training on how to manage through objectives while providing team members with clear decision authority to **take ownership in solving problems**
- Teams set **dedicated time for problem solving** that is now used to regularly generate, design, and launch improvement ideas
- Those ideas are easily shared across the business through a **robust focus on knowledge sharing** that also draws on best practices beyond JEA

Strategic priorities (Next three years)

Redesign roles & responsibilities

- **Define all roles** in terms of business needs with clear objectives, tasks, inputs, outputs and responsibilities

Launch structured problem solving

- **Establish dedicated time and processes** for teams to identify challenges, generate improvement ideas, and take appropriate action

Rotate high-performers

- **Create a rotation program for high-performing employees** to complement in-depth knowledge of their own business unit with a broader understanding of the organization

Establish a knowledge management system

- **Launch a digital solution** to facilitate creation, codification, and prioritization as well as organization and maintenance of knowledge with clear domain ownership¹

Quick wins (Next six months)²

Launch an operational transformation

- **Establish a set of operational improvement initiatives** that can be launched across the business to implement new ways of working

Run ideation sessions

- **Run ideation sessions** to identify specific operational improvements at the team/site level and integrate them into the transformation program

Celebrate ownership

- **Celebrate employees who take personal ownership** as well as the managers who successfully coach "from the sidelines" to enable their success

Define the big questions

- **Define and share the big questions and challenges** each business unit is struggling with and enlist employees in generating solutions

To achieve this:

- JEA's chief operating officer will lead overall development of the operational transformation program
- The Chief Human Resources Officer will drive enterprise-wide efforts to promote role clarity and knowledge sharing
- Supporting ownership and bottom-up innovation will be a shared responsibility of the Senior Leadership Team

¹ Costs associated with an enterprise-wide knowledge management platform are not included in the implementation costs associated with the operational performance initiatives

² Some of these are in process