

# Utility 2.0

## Strategic Plan: 2017-2021



Riverside Public Utilities

January 2017

Version 1.1



### **CITY COUNCIL**

Mike Gardner | *Ward 1*

Andy Melendrez | *Ward 2*

Mike Soubirous | *Ward 3*

Paul Davis | *Ward 4*

Chris Mac Arthur | *Ward 5*

Jim Perry | *Ward 6*

John Burnard | *Ward 7*

Rusty Bailey | *Mayor*

### **BOARD OF PUBLIC UTILITIES**

Jennifer O'Farrell | *Ward 1*

Kevin Foust | *Ward 2*

Elizabeth Sanchez-Monville | *Ward 3*

Dave Austin | *Ward 4*

Andrew Walcker | *Ward 5*

Vacant | *Ward 6*

Ronald Cole | *Ward 7*

Justin Scott-Coe | *Citywide 1*

David Crohn | *Citywide 1*

### **EXECUTIVE MANAGEMENT**

John A. Russo | *City Manager*

Girish Balachandran | *Utilities General Manager*

Kevin S. Milligan | *Deputy General Manager*

Michael J. Bacich | *Assistant General Manager - Customer Relations/Marketing*

Laura M. Chavez-Nomura | *Assistant General Manager - Finance/Administration*

Daniel E. Garcia | *Assistant General Manager - Resources*

George R. Hanson | *Assistant General Manager - Energy Delivery*

Todd L. Jorgenson | *Assistant General Manager – Water*

Mujib U. Lodhi | *Assistant General Manager – Operational Technology*

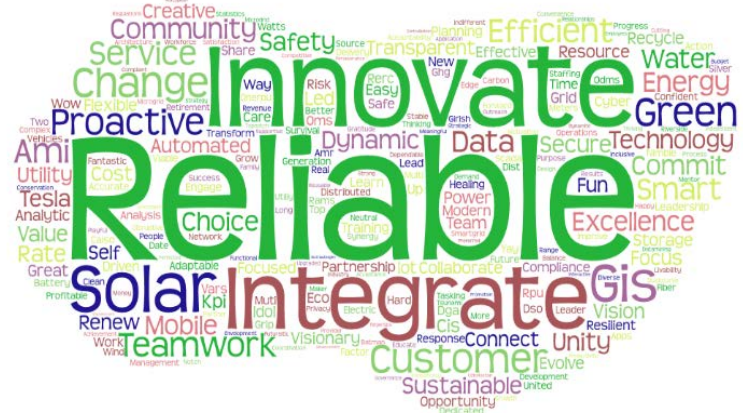
## Table of Contents

General Manager's Message .....	1
Strategic Plan Overview .....	3
Planning and Implementation .....	4
Goals .....	6
Customer Experience.....	7
Reliability & Resiliency .....	11
Affordability.....	16
Sustainability .....	20
Operations Excellence .....	23
Strong Workforce.....	29
Appendix A – Organizational Profile .....	32
Administration/General Manager's Office .....	33
Customer Relations / Marketing.....	33
Energy Delivery .....	34
Finance .....	35
Operational Technology.....	35
Resources .....	36
Water.....	37
Appendix B – Division Vision Statements .....	39
Office of the General Manager .....	40
Customer Relations.....	41
Energy Delivery .....	43
Finance .....	44
Operational Technology .....	45
Resources .....	47
Water.....	48
Appendix C – Biennial KPI Targets.....	49
Call Center .....	49
Counter/Develop Center .....	49
Billing & Rebates.....	49
Satisfaction Ratings.....	49
System Reliability .....	50

Asset Replacement and Renewal .....	50
Cyber and Physical Security .....	50
Generation Resiliency.....	50
Financial Strength.....	51
Affordability & Competitiveness.....	51
Additional Revenue.....	51
Supply Portfolio.....	52
Conservation and Efficiency .....	52
Utility Operations.....	52
Capital Projects .....	53
Forecasting .....	53
Regulatory Compliance.....	53
Supply .....	53
Operations .....	53
Safety.....	54
Training .....	54
Recruitment & Retention .....	54
Appendix D – Supporting Documents.....	55
Appendix E – Riverside 2.0 Update.....	56

## General Manager's Message

The water delivery system and electric grid are the essential framework that connect us all. Water and electricity flow through every aspect of our lives. Our way of life is completely dependent on reliable delivery of these commodities. For more than 100 years Riverside has provided affordable water and electricity to our homes and businesses. A recent study by the University of California Riverside quantified the annual economic impact of City-ownership of its electric and water utility to the community. The study found that the local economy benefits by more than \$479 million per year and supports more than 3,500 jobs via direct, indirect and induced impacts. As today's stewards, we will grow the value of this amazing asset not just for our generation but for future generations.



To ensure future stability and growth we – City Council, RPU Board and staff - developed the Utility 2.0 plan. It sets a direction for the next ten years, concentrating on accelerated infrastructure replacement and implementing new technology projects. We outline four options to replace our crumbling utility infrastructure, embed smart and innovative technology, lay out policies that will keep us financially strong and develop a vision for a workforce that is skilled, committed, safe and engaged; all aimed at improving the customer experience.

Just as we assured reliability with large infrastructure improvements over the past decade, these next ten years require us to shift focus toward the poles, wires, and pipes that were put in during the post-World War II period in the 1950s. The need for reliable and affordable utilities for Riverside is not negotiable. Our electric and water delivery infrastructure, most of which was built decades ago, is deteriorating and must be renewed and replaced. Without a change in our current path, we will miss opportunities and take on more risk. Sinkholes and rupturing pipelines will occur at greater frequency as the miles and miles of old pipelines fail. Without rapidly increasing our electric system infrastructure renewal, electric outages will be more frequent, take longer to fix and be more widespread. By accelerating infrastructure replacement, we will not only reduce the unthinkable risk of erratic service delivery, we will innovate using modern technology and improved processes.

Today our lives are more digital and more connected compared to 10 years ago. Do you remember that it was only 10 years ago that the Apple iPhone was announced? The same global changes that have driven disruptive technologies like smart phones, Google Maps, and self-driving cars is

influencing the way we deliver reliable and affordable delivery of electricity and water to our community.

As we replace our infrastructure we will embed modern technology and cyber-security measures into all of our investments so that customer satisfaction is increased. Today, we don't know when your lights are out or when you have a water leak, until you call us. System sensors combined with interconnected data collectors will help us know more about our system and become more responsive to customer's needs. We will look at larger opportunities to expand our fiber optic infrastructure and enable higher bandwidth and encourage economic development.

Renewables are here to stay and grow. Just as the internet created an information highway, our current grid needs to be transformed to an energy highway that is renewables-friendly. Not only will we rebuild the physical infrastructure of the grid to be renewables-ready but we will change our relationship with customers. They are not only consumers of our product, but thousands of them are producers of electricity. We will ensure that our grid is resilient enough to serve all our customers' electric needs in the future, whether they need us as their primary source of power or for us to be there as a backup.

We are blessed to have a resilient source of water in the Bunker Hill Basin. We have remained water independent since 2008 and delivered only local sources of water. We will continue to maximize the value of every drop of water. We have water to use, not to waste. California is just coming out of a 6-year historic drought that damaged the state's agricultural economy and brought a keen understanding of the value of water to all of us. Our water efficiency programs to help our customers use water more effectively will continue to be improved. We will develop new sources of supply to ensure our community growth.

Success of the Utility 2.0 plan is dependent on effective implementation. This strategic plan is not an immovable sign post; it outlines the actions we will take to start the implementation of the Utility 2.0 vision. As our industry changes, we will be flexible and adapt quickly to change our plan. Winston Churchill said, "Plans are of little importance, but planning is essential." Each year we will report our progress on achieving the goals outlined in this document to the Board, City Council and community. We are on an exciting and innovative path. This path of innovation will preserve and add value to the entire community. I look forward to our journey and thank you for partnering with us to keep RPU a continuing and growing asset to Riverside.



Girish Balachandran  
General Manager

## Strategic Plan Overview

This Strategic Plan incorporates RPU's Mission and Vision with broader goals and aspirations from the City-wide Riverside 2.0 planning framework. It identifies goals, strategies, objectives and key performance indicators for implementation of RPU's Utility 2.0 strategy. The plan is intended to guide staff, management, the Board of Public Utilities and the City Council in the allocation of resources and management of our assets.

Our **mission** is to provide the highest quality water and electric service at the lowest possible rates to benefit the community.

Our **vision** is to be recognized as a unique community asset with a global reputation for innovation, sustainability and an enhanced quality of life.

Our **core values** define our approach to our work: Safety | Honesty and Integrity | Teamwork | Professionalism | Quality Service | Creativity and Innovation | Inclusiveness and Mutual Respect | Community Involvement | Environmental Stewardship.

Six **Focus Areas** provide the foundation of the Strategic Plan and form the basis of our business approach. These Focus Areas are derived from the Utility 2.0 Strategic Plan and are an outgrowth of the Three-year and Ten-year goals from our prior strategic planning efforts. Our focus areas are:

- Customer Experience
- Reliability & Resiliency
- Affordability
- Sustainability
- Operational Excellence
- Strong Workforce

Our **goals** define what RPU wants to achieve; they explain 'what' not 'how' and tell where we are going rather than how we will get there. **Strategies** define which actions to take to achieve success in our focus areas, and may take years to achieve. **Objectives** reflect what we need to accomplish in the near term; they are specific, measurable, attainable, relevant and timely actions to move the needle. **Key Performance Indicators** (KPIs) measure how well we are doing in achieving success.



## Planning and Implementation

Our fundamental purpose in developing a strategic plan is to define the actions we will take over the next ten years to implement our Utility 2.0 vision. The process was designed to assess where we've been, where we need to go and respond to near and long term challenges. The General Manager led the development of our plan with participation by the community, Board of Public Utilities, Mayor and City Council. Implementation of the Strategic Plan is a Utility wide effort and will be led by the General Manager and senior management team.

Our strategic planning process kicked off in January 2015 with public workshops hosted by the Board. Those workshops reviewed literature on the current and future state of our industry and publications by thought-leaders. Utility specific long-range plans, ranging from workforce development and technology to resource and infrastructure were reviewed for adequacy and relevance. During these early workshops, the concept of Utility 2.0 was introduced and refined. Early Board workshops were then expanded to include joint workshops with the Mayor and City Council to further refine the roles of governance and ensure alignment between the City Council and RPU goals.



Throughout early 2015, senior management staff developed and refined Utility 2.0 roadmaps, working with cross-functional teams to consider input from various sources such as **infrastructure master plans**, which optimize capital project investments; **integrated resource plans**, which define our long range water and power supply strategies; **workforce development plans**, which identify our current and future required competencies and our strategies to achieve them; a long range **financial proforma**, which identifies affordability and constraints; **new initiatives** and **employee and customer feedback** to define and update the focus areas; and strategies, objectives and key performance indicators.

In August 2015, the resulting roadmaps were presented in public workshops to the Board and City Council for feedback and refinement. Infrastructure and resource investment options were presented ranging from status quo spending (falling further behind) to industry leading (referred to as Option 4). Ultimately, the Board and Council conceptually adopted Option 3, an accelerated infrastructure renewal plan, subject to considerations of affordability.




Through a series of meetings in 2016 with senior staff, managers and supervisors we further refined **Division Specific Visions** for Utility 2.0 (See Appendix B), identified Key Performance Indicators and began the process of “mapping” our current practices to improve efficiency and service quality.



The Strategic Plan is adopted by the Board of Public Utilities. The plan is far reaching and includes all components to implement the Utility 2.0 Option 3 roadmaps considered by the Board and City Council. As such, implementation of certain aspects are subject to and dependent upon funding. The Strategic Plan provides an overall high-level direction to prioritize resources to achieve future success; it does not describe all of the specific actions. By developing actions that are linked to the Strategic Plan, we can ensure focus and allocation of resources on the highest priorities.

The Strategic Plan guides the development of our biennial budget and the five- and ten-year capital improvement program to ensure that necessary resources are provided to implement the strategies and objectives.



Throughout the document, the  icon symbolizes objectives which are in part or fully dependent on additional funding as identified in the Utility 2.0 roadmaps.

The plan includes a series of KPIs that are measurable, comprehensive and reflect the various strategies contained within the six focus areas. Biennial **KPI Targets** are identified in Appendix C. **KPI results** are measured against our targets to enable us to evaluate our progress. KPI reports will be presented to the Board quarterly.

## Goals

### Customer Experience

Provide world-class customer-centered service in every encounter, every day.

### Reliability & Resiliency

Renew, replace, upgrade, modernize and extend the water and electric system infrastructure to ensure reliability is maintained or improved and that resilience to extreme events is maintained or improved.

### Affordability

Keep water and electricity prices affordable and comply with Fiscal Policy.

### Sustainability

Meet all city goals and state and federal compliance targets related to efficient use of water and electricity, renewable resources, greenhouse gas emissions.

### Operational Excellence

Instill, maintain and grow a culture of learning, innovation and continuous improvement in all internal processes achieving excellence in all our operations.

### Strong Workforce

Attract, retain, train, educate and promote employees ensuring that a high level of employee performance, productivity and engagement is achieved.

## Customer Experience

**Goal:** Provide world-class customer-centered service in every encounter, every day.

### Key Performance Indicators

#### Call Center

- a) Customer Service Center answered call rate, monthly
- b) 311 answered call rate, monthly
- c) Call resolution - first call, monthly

#### Counter/Development Center

- d) Plan checks completed in City specified timeframe
- e) Customer design projects completed within timeframe
- f) Solar PV meter installations completed within 3 days
- g) Happy or Not customer rating, monthly

#### Billing and Rebates

- h) Customer billing accuracy
- i) Rebates completed within timeframe

#### Satisfaction Ratings

- j) Key Customer Visitations satisfaction rating
- k) RKS Customer Satisfaction rating, annual

## Strategy 1

**Consistently deliver exceptional customer transaction experiences to maintain results to meet or surpass applicable objectives and KPI measures.**

### Objectives:

- 1) Implement and maintain appropriate staffing levels, policies and training to answer 95% of incoming calls at the RPU Call Center on an ongoing basis.
  - i) Mike Bacich
- 2) Implement and maintain appropriate staffing levels, policies and training to answer 95% of incoming calls at the 311 Call Center on an ongoing basis.
  - i) Mike Bacich
- 3) Implement two alternative payment methods for retail customer billing by July 1, 2017
  - i) Mike Bacich
- 4) Develop policies and programs for Board of Public Utilities and City Council consideration to increase the number of customers enrolled in E-bill by 20% year over year by December 31, 2018.
  - i) Mike Bacich
- 5) Implement and staff "one-stop-shop" to streamline City development and building permits process by May 1, 2017.
  - i) Kevin Milligan
  - ii) George Hanson
  - iii) Todd Jorgenson
  - iv) Mike Bacich
- 6) Implement and maintain appropriate staffing levels, policies and training to complete all small solar residential PV Plan checks within 72 hours
  - i) George Hanson
- 7) Implement and maintain appropriate staffing levels, policies and training to complete all development permit plan checks within City specified time frames
  - i) George Hanson
  - ii) Todd Jorgenson
- 8) Complete documentation of three current and future state customer-facing business processes related to development permitting and processing by March 31, 2017
  - i) George Hanson
  - ii) Todd Jorgenson
- 9) Update contacts of commercial and industrial customers quarterly and record results in Salesforce database by March 31, 2017 and quarterly thereafter.
  - i) Mike Bacich
- 10) Develop a visitation plan for commercial and industrial customers that include Key Account quarterly and all non-residential customers eventually (dates to be developed in plan) by July 31, 2017.
  - i) Mike Bacich
- 11) Evaluate the feasibility of installing a news ticker on the 311 app that advises of ongoing operational activity that may impact traffic, parking, etc. by December 31, 2017.

- i) Mike Bacich
- ii) Mujib Lodhi

## Strategy 2

**Non-Transactional contacts – Implement and maintain customer contact strategies to meet or surpass applicable objects and KPI measures.**

### Objectives:

- 1) Develop a yearly marketing plan that addresses the uses of marketing resources for the following year (# of impressions reduced to increase direct mail, etc) by December 31, 2017 and annually thereafter.
  - i) Mike Bacich
- 2) Develop a marketing plan that addresses operationalizing marketing and specifically calls out major upcoming projects and all related communications, education, outreach, internal and external resources for each project by December 31, 2017.
  - i) Mike Bacich
- 3) Implement and maintain appropriate staff policies and training to increase use of Salesforce internally. Develop a plan to integrate Salesforce into Enquesta so account managers will have more precise customer information in the field by December 31, 2017.
  - i) Mike Bacich
- 4) Develop a plan for the mobile use of Salesforce either by phone or tablet after CIS integrations is complete by December 31, 2017.
  - i) Mike Bacich
- 5) Implement and maintain appropriate staff policies and training to maintain 100% accuracy of Key Accounts contact database by December 31, 2017.
  - i) Mike Bacich

## Strategy 3

**Maintain quality service in all aspects of service operations that meets or surpasses our customers' expectations.**

### Objectives:

- 1) Implement and maintain appropriate staff policies and training to maintain domestic water that meets or exceeds all state and federal drinking water standards.
  - i) Todd Jorgenson
- 2) Implement and maintain appropriate staff policies and training respond to street light service requests within 72 hours.
  - i) George Hanson

- 3) Implement and maintain appropriate staff policies and training to provide applicants with plan check comments within approved time frame.
  - i) George Hanson
  - ii) Todd Jorgenson
- 4) Implement and maintain appropriate staff policies and training to respond to power quality complaints within 21 business days of date of complaint.
  - i) George Hanson

Prioritize budget requests to conduct RKS customer satisfaction survey each alternate year for residential and commercial customers by August 31, 2017.

- ii) Mike Bacich

## Reliability & Resiliency

**Goal:** Renew, replace, upgrade, modernize and extend the water and electric system infrastructure to ensure reliability is maintained or improved and that resilience to extreme events is maintained or improved.

### Key Performance Indicators

#### System Reliability

- a) Average duration of an electric outage – system wide lens (SAIDI)
- b) Average number of electric outages – system wide lens (SAIFI)
- c) Average electric outage customer restoration time – impacted customer lens (CAIDI)
- d) Average number of momentary (<5 minutes) electric outages – system wide lens (MAIFI)
- e) Water system leakage and loss (Infrastructure Leakage Index)

#### Asset Replacement and Renewal

- f) Miles of Pipeline Replacement annually
- g) Number of Poles replaced annually
- h) Substation Relay replacements annually

#### Cyber and Physical Security

- i) Cyber security projects completed annually
- j) Physical security projects completed annually

#### Generation Resiliency






- k) RERC and Springs Black Start Availability



## Strategy 1

### **Develop and maintain electric and water supply facilities to fully implement our integrated resource plans.**

#### **Objectives:**




- 1) Maintain an ongoing 5-year equipment replacement plan for the RERC to ensure black start capability and compliance with state and federal regulations.
  - i) Daniel Garcia
- 2) Maintain an ongoing 5-year equipment replacement plan for the Springs Generation Facility to ensure black start capability and compliance with state and federal regulations.
  - i) Daniel Garcia
- 3) Design and construct the Phase 1 Jackson Street pipeline to extend the recycled water system by November 30 2017.
  - i) Todd Jorgenson
-  4) Design and construct the Phase 2 Jackson Street pipeline to extend the recycled water system by June 30, 2018.
  - i) Todd Jorgenson
- 5) Initiate five well rehabilitation or replacement projects by March 31, 2017.
  - i) Todd Jorgenson
-  6) Coordinate with San Bernardino Valley Municipal Water District and other agencies to ensure construction of the Seven Oaks Dam enhanced recharge project by June 2021.
  - i) Todd Jorgenson
-  7) Coordinate with San Bernardino Valley Municipal Water District and other agencies to ensure construction of the San Bernardino foothills active recharge project by June 2025.
  - i) Todd Jorgenson
-  8) Design and construct the Riverside North Aquifer Storage and Recovery project (Santa Ana River rubber dam and related recharge basins) by June 2025.
  - i) Todd Jorgenson
-  9) Conduct ongoing pro-active maintenance and membrane replacement at John W. North Water Treatment Plant to maintain capacity at 6 MGD or better.
  - i) Todd Jorgenson
- 10) Conduct ongoing pro-active groundwater basin monitoring to address risk of rising perchlorate levels and/or lower contaminant action levels.
  - i) Todd Jorgenson
- 11) Conduct ongoing pro-active maintenance at RERC and Springs to meet 90% or better generation availability (including forced and planned outages) annually.
  - i) Daniel Garcia
- 12) Conduct ongoing pro-active maintenance at RERC and Springs to reduce forced outage rate by 1% year over year.
  - i) Daniel Garcia
- 13) Procure adequate forward power and/or natural gas to meet approved power hedge percentages for the 5-year forward period.
  - i) Daniel Garcia

- 14) Procure adequate power and/or natural gas to maintain 100% compliance with the system and flexible resource adequacy requirements.
  - i) Daniel Garcia

## Strategy 2

### **Develop and maintain electric and water transmission facilities to fully implement our infrastructure master plans.**



#### **Objectives:**

- 1) Secure property rights to begin construction of the RTP 69kV RERC-Harvey Lynn and RERC-Freeman sub-transmission facilities by October 31, 2017.
  - i) George Hanson
- 2) Design and construct the RTP 69kV RERC-Harvey Lynn and RERC-Freeman sub-transmission facilities by 2020.
  - i) George Hanson
- 3) Coordinate with Southern California Edison to ensure SCE construction of the RTP 230 kV transmission facilities to Wildlife Substation by 2023.
  - i) George Hanson
- 4) Design and construct upgrades to ten substation 12kV switchgear by July 31, 2017.
  - i) George Hanson
-  5) Design and construct the Arlanza Substation and related sub-transmission improvements by June 2027.
  - i) George Hanson
-  6) Design and construct seven substation transformer replacements by June 2027. Establish interim time goals for each of project phase by June 30, 2017.
  - i) George Hanson
- 7) Conduct ongoing GO-165 inspections of electric distribution facilities to meet compliance schedule.
  - i) George Hanson
- 8) Conduct ongoing GO-174 inspections of substation equipment to meet compliance schedule.
  - i) George Hanson
-  9) Complete the replacement of all sub-transmission electro-mechanical relays to digital relays by 2023. Establish interim time goals for each of project phase by June 30, 2017.
  - i) George Hanson

### Strategy 3

#### **Develop and maintain electric distribution and grid edge and water distribution and network edge facilities to fully implement our infrastructure master plans.**

##### **Objectives:**

- 1) Develop and deploy an advanced metering program for all commercial, industrial and institutional water and electric customers by June 30, 2018.
  - i) Mujib Lodhi
-  2) Develop and deploy an advanced metering program for all residential water and electric customers by 2020.
  - i) Mujib Lodhi
- 3) Evaluate the potential and implement, if cost-effective, a Demand Response program by June 30, 2018.
  - i) Mike Bacich and Daniel Garcia
- 4) Complete design of the Phase 1 LED streetlight conversion program by April 30, 2017.
  - i) George Hanson
- 5) Complete construction of the LED streetlight conversion program by 2020. Establish interim time goals for each of Phase 2 through Phase 5 projects by June 30, 2017.
  - i) George Hanson
-  6) Increase pipeline replacement to achieve 100 year replacement cycle (from 5 miles per year to 8.5 miles per year) by 2020.
  - i) Todd Jorgenson
- 7) Complete conversion of six 4kV circuits to 12kV by December 31, 2017.
  - i) George Hanson
- 8) Complete Physical Security high priority findings from 2016 Vulnerability Assessment by September 30, 2017.
  - i) Mujib Lodhi
- 9) Complete Physical Security medium-priority findings from 2016 Vulnerability Assessment by February 28, 2018.
  - i) Mujib Lodhi
- 10) Complete Cyber Security high priority findings from 2016 Vulnerability Assessment by July 31, 2017.
  - i) Mujib Lodhi
- 11) Complete Cyber Security medium-priority findings from 2016 Vulnerability Assessment by December 31, 2017.
  - i) Mujib Lodhi
- 12) Develop and implement on-going proactive program to ensure 100% compliance with required cyber-security training annually by June 30, 2017.
  - i) Kevin Milligan
  - ii) Mujib Lodhi
- 13) Conduct ongoing maintenance of water system valves to meet five-year maintenance cycle.
  - i) Todd Jorgenson

- 14) Conduct ongoing maintenance of water system fire hydrants to meet five-year maintenance cycle.
  - i) Todd Jorgenson
- 15) Complete vegetation maintenance and line clearance work to meet annual maintenance cycle.
  - i) George Hanson

#### **Strategy 4**

**Develop and maintain an active Emergency Preparedness Program to plan for and manage Utility functions during extreme events and allow for efficient and effective recovery following extreme events.**

#### **Objectives:**

- 1) Update and maintain a comprehensive Emergency Response Plan by September 30, 2017 and annually thereafter.
  - i) Kevin Milligan
- 2) Develop and maintain a Business Continuity Plan in consultation with the City Finance Department and Emergency Operations staff, by December 31, 2017 and annually thereafter.
  - i) Laura Nomura
- 3) Conduct tabletop emergency exercise in coordination with City EOC to test DOC readiness and capabilities by November 30, 2017 and annually thereafter.
  - i) Kevin Milligan

## Affordability

**Goal:** Keep water and electricity prices affordable and comply with Fiscal Policy.

### Key Performance Indicators

#### Financial Strength

- a) Debt Service Coverage
- b) Undesignated Cash Reserve level
- c) Bond Ratings

#### Affordability and Competitiveness

- d) Weighted Average Rates



#### Additional Revenue



- e) Customer Collection Rates
- f) Monetized Passive Assets

### Strategy 1

**Develop and implement revenues, rates, and rate structure to meet Utility 2.0 objectives through 2025.**

#### Objectives:

-  1) Develop and prepare recommendations for Board of Public Utilities and City Council consideration to implement electric and water rate increases to meet 5 year revenue target for Utility 2.0 Option 3 projects by June 30, 2017.
  - i) Laura Nomura
-  2) Develop and prepare recommendations for Board of Public Utilities and City Council consideration to implement time of use rates for all customer classes by 2022.
  - i) Laura Nomura

-  3) Develop and prepare recommendations for Board of Public Utilities and City Council consideration to implement allocation-based water rates (also called “budget-based rates) by 2020.
  - i) Laura Nomura
- 4) Develop and prepare recommendations for Board of Public Utilities and City Council consideration to implement successor rate tariff for solar net-energy-metering customers by March 31, 2018.
  - i) Laura Nomura
-  5) Develop and prepare recommendations for Board of Public Utilities and City Council consideration to implement an electric vehicle charging rate tariff for residential, commercial and public access, including DC fast charge, by December 31, 2017.
  - i) Laura Nomura
  - ii) George Hanson
  - iii) Mike Bacich
- 6) Develop and implement a pro-active monitoring plan to maintain annual retail revenues within 98% of budgeted level by June 30, 2017.
  - i) Laura Nomura

## Strategy 2

### **Maintain financial reserves and debt obligations in accordance with Fiscal Policy and 10-year financial pro-forma.**

#### **Objectives:**

- 1) Develop and implement a pro-active monitoring plan to maintain debt service coverage (DSC) ratio above 1.75 by March 31, 2017.
  - i) Laura Nomura
- 2) Develop and implement a pro-active monitoring plan to maintain undesignated cash reserve levels for water and electric utilities within the levels designated in the adopted Reserve Policy by March 31, 2017.
  - i) Laura Nomura

## Strategy 3

### **Actively manage expenditures and exercise cash control to maintain targets in Fiscal and Reserve Policies and adopted biennial budget and capital improvement program.**

#### **Objectives:**

- 1) Develop and implement a pro-active monitoring plan to maintain annual operating expenditures within the adopted budget amount by March 31, 2017.
  - i) Laura Nomura

- 2) Develop and implement a pro-active monitoring plan to decrease write off rate by 20% year over year by March 31, 2017 and annually thereafter.
  - i) Mike Bacich

#### Strategy 4

**Competitiveness – Manage all aspects of our financial operations to maintain competitive rates across all classes of water and electric service.**

##### Objectives:

- 1) Develop and maintain a long range financial pro-forma to ensure residential and commercial rates are competitive with weighted average rates of neighboring agencies, based on average electric and water bill amounts by June 30, 2017.
  - i) Laura Nomura

#### Strategy 5

**Additional Revenues - Monetize passive assets to continue existing revenue streams and add new revenue streams to make up for losses from lower commodity use and other financial impacts.**

##### Objectives:

- 1) Develop property marketing strategy for consideration by the Board of Public Utilities and City Council by March 31, 2017.
  - i) Kevin Milligan
- 2) Document internal lease procedures in conjunction with City policy to speed projects to market by March 1, 2017.
  - i) Kevin Milligan
- 3) Select and procure a property inventory and lease management software application by March 1, 2017.
  - i) Kevin Milligan
- 4) Complete negotiations with Hillwood for lease of the Waterman Golf Course property by February 28, 2017.
  - i) Kevin Milligan
- 5) Complete negotiations with WMWD for a long term wheeling agreement by March 31, 2017.
  - i) Todd Jorgenson
- 6) Complete negotiations with WMWD and other water agencies for sales of excess/wholesale water deliveries by June 30, 2017.
  - i) Todd Jorgenson



- 7) Engage actively in the Northside vision process regarding the Ab Brown, Pellissier Ranch and former Riverside Golf Course properties to facilitate completion of visioning process by July 31, 2018.

- i) Kevin Milligan



- 8) Develop a master plan for Mission Square Garage automation and electric vehicle charging by July 31, 2017.

- i) Kevin Milligan

- 9) Develop standardized agreements and rate tariffs for lease of dark fiber infrastructure for consideration by Board of Public Utilities and City Council by April 30, 2017.

- i) Kevin Milligan

- ii) Mujib Lodhi

- 10) Develop strategy to monetize excess Compliance Period 2-PCC1 renewable energy credits by April 30, 2017.

- i) Daniel Garcia

## Sustainability

**Goal:** Meet all city goals and state and federal compliance targets related to efficient use of water and electricity, renewable resources, greenhouse gas (GHG) emissions.

### Key Performance Indicators

#### Supply Portfolio

- a) GHG Emission level
- b) Renewable Portfolio (% renewables)
- c) Recycled water deliveries

#### Conservation and Efficiency

- d) Annual kWh savings from conservation efforts
- e) Water conservation against SBx7-7 target
- f) Solar rooftop PV progress against SB1 target


#### Utility Operations

- g) E-bill adoption rate

### Strategy 1

#### Manage utility operations to meet compliance targets and City goals.

#### Objectives:

- 1) Conduct ongoing pro-active maintenance at RERC and Springs to maintain NO<sub>x</sub> levels below air district permitted levels.
  - i) Daniel Garcia
- 2) Procure adequate and appropriate power supplies to reduce GHG emissions to 1990 levels to meet Assembly Bill 32 2020 compliance deadline.
  - i) Daniel Garcia
-  3) Procure adequate and appropriate power supplies to reduce GHG emissions to 40% below 1990 levels to meet Senate Bill 32 2030 compliance deadline.
  - i) Daniel Garcia



- 4) Procure adequate and appropriate power supplies to reduce GHG emissions to 80% below 1990 levels to meet Executive Order S-3-05 2050 compliance deadline.
  - i) Daniel Garcia
- 5) Develop policy and program recommendations for Board of Public Utilities and City Council consideration to enable 4-star community designation by June 30, 2018.
  - i) Mike Bacich
- 6) Complete Greenhouse Gas inventory and report to WRCOG by December 31, 2017.
  - i) Mike Bacich

## Strategy 2

### **Develop and implement resource conservation and efficiency programs to meet compliance targets.**

#### **Objectives:**

- 1) Prepare a revised water conservation plan, incorporating current best practices, for inclusion in the Water Efficient Landscape Ordinance (WELO) by December 31, 2017.
  - i) Mike Bacich
  - ii) Todd Jorgenson
- 2) Complete for Board of Public Utilities and City Council consideration a plan to reduce environmental commitment of recycled water from 10,000 acre feet annually (afa) to 5,000 afa by December 31, 2017.
  - i) Todd Jorgenson
- 3) Complete for Board of Public Utilities and City Council consideration an agreement with San Bernardino Habitat Conservation Plan participants for adoption of the HCP by December 31, 2017.
  - i) Todd Jorgenson
- 4) Complete for Board of Public Utilities and City Council consideration an agreement with San Bernardino Habitat Conservation Plan participants to complete mitigation projects using recycled water by December 31, 2017.
  - i) Todd Jorgenson
- 5) Develop policies and programs for Board of Public Utilities and City Council consideration to meet and exceed the SBx7-7 water conservation goal of per capita water use 20% less than base year by the year 2020 as well as to establish efficient water use as a way of life in Riverside by June 30, 2018.
  - i) Todd Jorgenson
  - ii) Mike Bacich
- 6) Develop policies and programs for Board of Public Utilities and City Council consideration to implement energy efficiency of 1% per year and at a cost less than 7 cents/kWh by December 31, 2017.
  - i) Mike Bacich
- 7) Acquire and implement customer engagement programs and customer-facing applications to communicate individual energy use and facilitate energy efficiency by July 31, 2017.
  - i) Mike Bacich

- 8) Acquire and implement customer engagement programs and customer-facing applications to communicate individual water use and facilitate water efficiency by July 31, 2017.
  - i) Mike Bacich

### Strategy 3

**Develop and maintain renewable water and power resources to meet compliance targets and fully implement our integrated resource plans.**

#### Objectives:

- 2) Complete negotiations for a solar PPA provider for RPU water facilities with RPU electric service territory by September 30, 2017.
  - i) Todd Jorgenson
  - ii) Daniel Garcia
- 3) Engage a consulting firm to determine recharge opportunities for the Riverside North and Riverside South groundwater basins by March 31, 2017.
  - i) Todd Jorgenson
- 4) Complete for Board and City Council consideration a program for to convert customers to recycled water service by December 31, 2017
  - i) Todd Jorgenson
- 5) Procure adequate and appropriate power to meet SB350 Renewable Portfolio Standard targets; 33% by 2020 and 50% by 2030.
  - i) Daniel Garcia
- 6) Develop feasibility report for energy storage at Tequesquite solar project by July 31, 2017
  - i) Daniel Garcia
- 7) Develop a plan for review by the General Manager to achieve 5% energy efficiency savings per year through 2030 by December 31, 2017
  - i) Daniel Garcia
  - ii) Mike Bacich

## Operations Excellence

**Goal:** Instill, maintain and grow a culture of learning, innovation and continuous improvement in all internal processes achieving excellence in all our operations.

### Key Performance Indicators

#### Capital Projects

- b) Energy Delivery CIP complete on budget on time
- c) Water CIP complete on budget on time
- d) OTO projects completed on budget on time

#### Forecasting

- e) Annual Power Forecast accuracy
- f) Annual Water Forecast Accuracy

#### Regulatory Compliance

- g) Water Quality compliance
- h) NERC/WECC report compliance

#### Supply

- i) Generation availability
- j) Water Supply Independence (local resources)
- k) Annual % system water loss

#### Operations

- l) Street light repair cycle time
- m) Water leak repair cycle time

#### Governance

- n) Legislative advocacy
- o) Alignment with Riverside 2.0

## Strategy 1

**Implement legislative and regulatory advocacy and intervention actions to positively impact legislation and regulations at all levels of government.**




### Objectives:

- 1) Develop, in coordination with City Intergovernmental affairs officer, for consideration by the Board of Public Utilities and City Council a two year legislative platform for use in advocacy and communication by December 31, 2017.
  - i) Kevin Milligan
- 2) Prepare all necessary collateral material for ongoing use at CMUA, SCPPA, APPA, AMWA and ACWA advocacy meetings in Sacramento and DC by January 15, 2017 and annually thereafter.
  - i) Kevin Milligan
- 3) Prepare and calendar updates to Board on Legislative and Regulatory issues by February 28, 2017 and bi-annually thereafter.
  - i) Kevin Milligan

## Strategy 2

**Maximize the use of technology to improve utility operations across the enterprise.**

### Objectives:

-  1) Develop and implement Operational Technology Office staffing plan (Stage 1) by June 30, 2017.
  - i) Mujib Lodhi
  - ii) Kevin Milligan
- 2) Complete the replacement of all land mobile radios by June 30, 2017.
  - i) George Hanson
  - ii) Mujib Lodhi
-  3) Prepare policy, programs and staffing plan to replace and maintain the GIS application and data for the entire City enterprise by December 31, 2017.
  - i) Mujib Lodhi
- 4) Complete the Operations Data Management System implementation and the associated conversion of 20 manual and disparate processes with associated dashboards by June 30, 2018.
  - i) Mujib Lodhi
-  5) Complete the Phase 1 Asset Management System implementation for electric and water by December 31, 2018.
  - i) Mujib Lodhi



- 6) Develop a staffing plan and program (Stage 2-Critical Positions) for implementation and maintenance of the nineteen projects identified in the Strategic Technology Plan by December 31, 2017.
  - i) Mujib Lodhi
- 7) Prepare use case and business objective recommendations and communicate with City Chief Financial Officer for the acquisition of an Enterprise Resource Planning (ERP) system by July 31, 2017.
  - i) Mujib Lodhi
  - ii) Laura Nomura
- 8) Develop a policy for the use of the Enterprise Asset Management System including identification of service levels for various asset classes by December 31, 2017.
  - i) Mujib Lodhi
  - ii) Todd Jorgenson
  - iii) George Hanson
  - iv) Daniel Garcia
  - v) Laura Nomura

### Strategy 3

#### **Develop and implement process improvements to enhance effective and efficient operations across the enterprise.**

#### **Objectives:**

- 1) Implement all the performance audit recommendations from the 2016 Baker Tilly Audit and the Hometown Connections Organization Review. Update on progress and completion twice per year, March 2017 and September 2017, and bi-annually thereafter.
  - i) Kevin Milligan
    - a. Performance Audit – 8 items
    - b. Hometown Connections – 27 items
  - i) Laura Nomura
    - a. Financial Audit – 10 items
    - b. Performance Audit – 16 items
    - c. Hometown Connections – 17 items
  - i) Daniel Garcia
    - a. Hometown Connections – 9 items
  - i) Mike Bacich
    - a. Performance Audit – 1 item
    - b. Hometown Connections – 12 items
  - i) George Hanson
    - a. Performance Audit – 9 items
    - b. Hometown Connections – 12 items
  - i) Todd Jorgenson
    - a. Performance Audit – 10 items
    - b. Hometown Connections -3 items



- i) Mujib Lodhi
    - a. Performance Audit –16 items
    - b. Hometown Connections - 12 items
- 2) Complete Dennis Snow video training and reading by January 31, 2017; identify processes and develop improvement plans by April 30, 2017; complete implementations by December 31, 2017.
  - i) All AGMs
- 3) Coordinate one training per year for divisions on analytical techniques and methodologies applicable to the Utility by December 31, 2017 and annually thereafter.
  - i) Daniel Garcia
- 4) Coordinate and facilitate quarterly meetings of analysts to network, share knowledge and distribute analytical techniques across the organization by June 30, 2017 and quarterly thereafter.
  - i) Daniel Garcia
- 5) Create Data Analytics Group (including a position for emerging technologies) staffing plan by June 30, 2017 and complete hiring by December 31, 2017.
  - i) Kevin Milligan
  - ii) Daniel Garcia
- 6) Institute root-cause-analysis (RCA) training and implementation RCA framework and reporting for all significant process errors by March 31, 2017.
  - i) All AGMs

## Strategy 4

### **Develop and maintain regulatory and risk management programs to maintain compliance targets and internal policy requirements.**

#### **Objectives:**

- 1) Develop, in consultation with the City Chief Innovation Officer, Information Security Officer and City Risk Manager, a cyber-security communication and response plan and establish subsequent time goals for implementation of plan objectives by December 31, 2017.
  - i) Mujib Lodhi
- 2) Create Technology Security Group (including a position for cyber-security) staffing plan by June 30, 2017 and complete hiring by December 31, 2017.
  - i) Mujib Lodhi
  - ii) Kevin Milligan
- 3) Complete applicable staff activities and reporting to maintain compliance with Internal Compliance Program (ICP) for NERC/WECC requirements on an ongoing basis.
  - i) LeeAnne Uhler
- 4) Retain consulting services to ensure 100% counter-part risk financial review annually by January 31, 2017 and continuing thereafter.
  - i) LeeAnne Uhler

- 5) Complete annual review and, if warranted, Board and City Council adoption of revisions to the internal compliance and energy risk management policies by March 31, 2017 and annually thereafter.
  - i) LeeAnne Uhler
  - ii) Daniel Garcia
  - iii) Risk Management Committee
- 6) Implement and maintain appropriate staffing levels, policies and training to ensure 100% compliance with applicable provisions of the Power Resources Risk Management Policy.
  - i) LeeAnne Uhler
  - ii) Daniel Garcia
- 7) Implement and maintain appropriate staffing levels, policies and training to ensure 100% compliance with all applicable water quality regulations.
  - i) Todd Jorgenson

## Strategy 5

**Implement and maintain meter-to-cash activities to meet or surpass our customers' expectations.**

### Objectives:

- 1) Implement and maintain appropriate staffing levels, policies and training to ensure 99.6% or better meter reading completion and accuracy.
  - i) Mike Bacich
- 2) Implement and maintain appropriate staffing levels, policies and training to ensure 100% completion rate for all service orders monthly.
  - i) Mike Bacich
- 3) Implement and maintain appropriate staffing levels, policies and training to reduce billing adjustments by 10% annually year over year
  - i) Mike Bacich
  - ii) Laura Nomura
- 4) Implement and maintain appropriate staffing levels, policies and training to ensure 98% or better accuracy on first pass customer billing annually.
  - i) Mike Bacich
  - ii) Mujib Lodhi

## Strategy 6

**Implement leading practices in system operations and maintenance to deliver excellence in all aspects of utility operations.**

### Objectives:

- 1) Implement and maintain appropriate staffing levels, policies and training to ensure response to all Priority 9 (Emergency) and Priority 7 (immediate, pending Digalert) within 72 hours of first report by January 31, 2017.
  - i) Todd Jorgenson
- 2) Implement and maintain appropriate staffing levels, policies and training to ensure that the annual Infrastructure Leakage Index is at or below 2.5 and that the Water Loss Audit will be completed in conformance to SB 555 by October 1, 2017.
  - i) Todd Jorgenson

## Strong Workforce

**Goal:** Attract, retain, train, educate and promote employees ensuring that a high level of employee safety, performance, productivity and engagement is achieved.

### Key Performance Indicators

#### Safety

- b) OSHA Reportable Incident Rate
- c) Vehicle Incident Rate
- d) Claims Cost Paid (Workers Comp)

#### Training

- e) Training \$'s per employee
- f) % of employees with formal development plan
- g) % of employees with U2.0 competency assessment

#### Recruitment and Retention

- h) Vacancy Rate
- i) Turn-over Rate within 1<sup>st</sup> 12 months
- j) Recruitment Cycle Time
- k) Internal Promotion Frequency (% positions filled internally)

### Strategy 1

**Safety – Provide tools, training and programs to ensure our employees have the necessary knowledge, skills and support to work safely.**

#### Objectives:

- 1) Implement and maintain appropriate staffing levels, policies and training to ensure OSHA Reportable Incident Rate at or below KPI measure.
  - i) Kevin Milligan

- 2) Implement and maintain appropriate staffing levels, policies and training to ensure Vehicle Incident Rate at or below KPI measure
  - i) Kevin Milligan
- 3) Implement and maintain appropriate staffing levels, policies and training to reduce reportable injuries by 20% year over year by March 31, 2017 and ongoing thereafter.
  - i) Kevin Milligan
- 4) Develop a staffing plan and program to complete at least 10 job site inspections monthly by July 31, 2017.
  - i) Kevin Milligan
- 5) Develop a staffing plan, program and policies to increase level of safety training participation by 20% year over year by July 31, 2017.
  - i) Kevin Milligan
- 6) Implement and maintain appropriate staffing levels, policies and training to achieve and maintain incident reporting accuracy at 100% by July 31, 2017.
  - i) Kevin Milligan
- 7) Hire and onboard a Utilities Safety Manager by March 31, 2017
  - i) Kevin Milligan

## Strategy 2

**Training – Provide training and educational opportunities that promote continuous learning within the organization.**

### Objectives:


- 1) Coordinate two trainings per year for divisions on cyber-security techniques and methodologies applicable to the Utility by July 31, 2017 and bi-annually thereafter.
  - i) Kevin Milligan
  - ii) Mujib Lodhi
- 2) Coordinate one training per year for divisions on physical security techniques and methodologies applicable to the Utility by December 31, 2017 and annually thereafter.
  - i) Kevin Milligan
- 3) Implement and maintain appropriate staffing levels, policies and training to achieve implement Workforce Development Plan by June 30, 2017.
  - i) Kevin Milligan
- 4) Prepare analysis and recommendations for Board of Public Utilities and City Council consideration to implement Education Sponsorship Program by March 31, 2017.
  - i) Kevin Milligan
- 5) Complete training for all supervisory and management employees for preparation of employee development plans by March 31, 2017.
  - i) Kevin Milligan
- 6) Complete employee development plan for all management and supervisory staff with July 2017 Performance Appraisals and annually thereafter.
  - i) All AGMS and Managers

- 7) Complete employee development plan for all non-management and non-supervisory staff with July 2018 Performance Appraisals and annually thereafter.
  - i) All AGMS, Managers and Supervisors
- 8) Develop and implement Competency Assessments for Executive and Senior Management staff using the WestMonroe/IIT SmartGrid Heat Map as adapted by May 30, 2017.
  - i) Kevin Milligan

### Strategy 3

#### **Organization – Develop and implement programs and practices that promote a culture of employee engagement, performance and productivity.**

##### **Objectives:**

- 1) Develop and administer employee engagement survey for all RPU employees in September 2017 and biennially thereafter.
  - i) Daniel Garcia
- 2) Implement policies and practices to maintain or improve overall Employee Engagement Survey score from overall agreement score of 0.639 in 2015 beginning with September 2017 Employee Engagement survey and biennially thereafter.
  - i) All AGMs
- 3) Complete Phase 1 of Class Comp Study by June 30, 2017
  - i) Kevin Milligan
-  4) Implement policies and practices to decrease Vacancy Rate to 10% by December 31, 2017; 5% by December 31, 2018 and maintain at 5% thereafter.
  - i) Kevin Milligan
- 5) Prepare RFP, solicit proposals and prepare recommendations to Board of Public Utilities and City Council to implement the Phase 1 Talent Management System by December 31, 2017.
  - i) Mujib Lodhi
  - ii) Kevin Milligan
- 6) Complete on-boarding of Workforce Development team by March 31, 2017
  - i) Kevin Milligan
- 7) Institute “design-thinking” training and implement framework for one significant process per division by December 31, 2017.
  - i) Kevin Milligan
  - ii) All AGMs
- 8) Implement training, practices and guidance to ensure completion of all performance appraisals on time beginning July 31, 2017 and annually thereafter.
  - i) All AGMs and Managers and Supervisors

## Appendix A – Organizational Profile

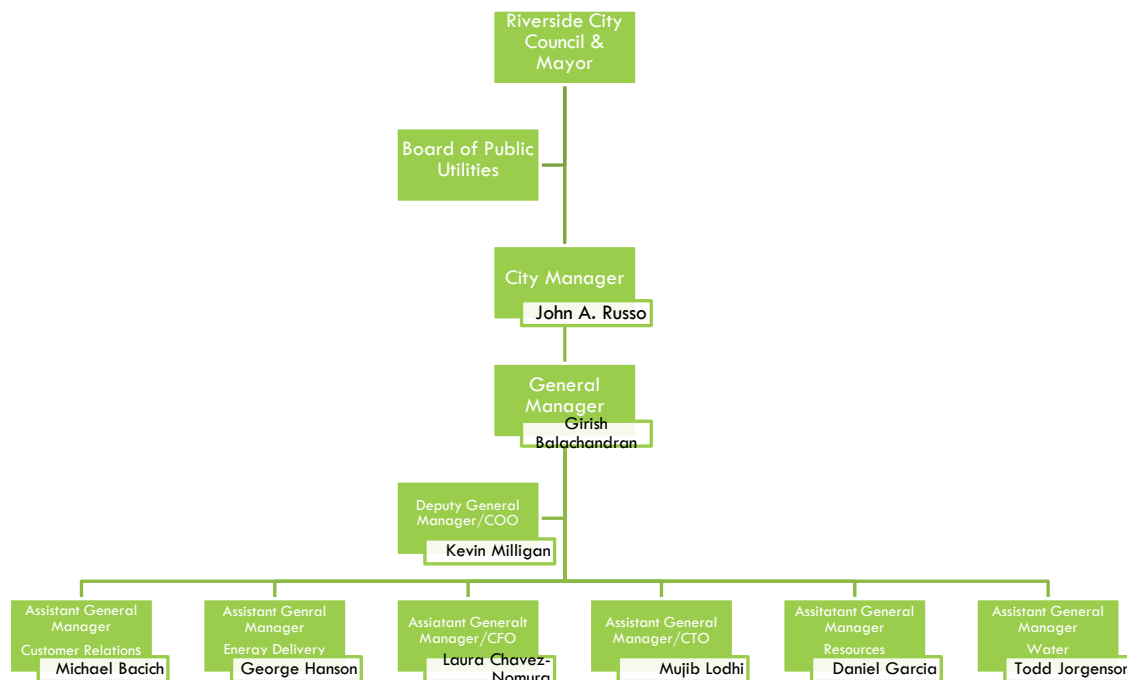
Established in 1895, Riverside Public Utilities (RPU) is a customer owned water and electric utility governed by a board of nine community volunteers, and the City Council of Riverside, that provides high-quality, reliable services to more than 106,000 centered electric customers and over 64,000 metered water customers (serving a population of more than 300,000) in and around the City of Riverside.

We have more than 600 employees dedicated to providing reliable energy and water delivery services, and exceptional engineering, marketing and customer relations, and customer services.

Riverside is one of more than 2,000 cities in the United States that light up homes and businesses with “public power” – electricity that comes from a community-owned and operated utility. Additionally, we maintain local water resources that allow us to meet our customers’ demands while being 100% independent from imported water sources.

RPU is also committed to increasing the use of renewable energy resources and sustainable living practices that help reduce environmental impacts within the City of Riverside and the state of California.

Riverside Public Utilities operates through the coordination of many different divisions as depicted in the following **Organizational Chart**:





## Administration/General Manager's Office

The General Manager provides overall strategic direction and is the chief executive of the organization. The GM is accountable to the City Manager for the overall administrative, fiscal and operational aspects of the organization; intra- and inter-agency coordination; and the overall customer experience.

Under the management of the Deputy General Manager, the following activities serve multiple divisions of the Utility:

*Safety* – Responsible for organizational safety, training, compliance and reporting.

*Workforce Development* – A workforce development task force was formed to address immediate and long term needs of the Utility in the areas of training, development, on-boarding and succession planning.

*Labor Relations* – Responsible for leading the RPU team as required in concert with the Human Resources Department in labor negotiations, labor management committees, and grievance/disciplinary hearings.

*Risk Management* - RPU's power transaction risks are identified, measured, and limited to ensure sound financial methods and practices. The Financial Risk Management Policy creates the framework which governs Power Resources' wholesale power trading activities. Purchased power, which is well over \$100 million each year, represents a significant percentage of the electric Utilities' budget. RPU's primary objective is to reduce the cost of power to its customers while maintaining reliability, efficiency, and safety of electric operations.

*Legislative Affairs* – Responsible for coordination of RPU's legislative agenda as adopted by the City Council and coordination with state and national trade groups and contract lobbyists.

*Real Property Resources* - Responsible for the utilities' interest in over 100 parcels of property. Many of these parcels are currently unused, but their use is anticipated due to future plans for annexation and expansion of the utility infrastructure.

## Customer Relations / Marketing

The Customer Relations / Marketing Division is responsible for all aspects of RPU's marketing, communication, media and public relations, and promotions, as well as: the creation and administration of public benefits programs and rebates; business customer services; Customer Service; Field Services and meter reading.

*Customer Relations (also known as Programs & Services or Public Benefits)* – Is responsible for providing support to residential and commercial customers. They perform on-site inspections and provide free energy surveys. Staff helps customers use available public benefits programs to make their homes and businesses more energy and water efficient. They are responsible for all aspects of receipt and approval of submitted rebate applications, including authorization of payment, and scheduling of inspections. This group also facilitates utilities planning and funding of renewable energy projects.

*Marketing* – Is responsible for creating internal and external marketing and advertising materials, including public awareness campaigns for water and energy utilities as well as citywide “Green” initiatives program. They create and distribute informative materials to customers about Utilities’ projects, rates, updates, and public benefit rebate programs. They also prepare a variety of internal and external presentations and annual reports, and manage and update the Web and intranet sites for content. This group also administers employee loyalty programs, sponsorships, special events, promotions, Back of Bill newsletter and bill insertions, annual bottled water distribution to schools and non-profit organizations, and school education programs.

*Customer Service* - Provides the first point of contact for residential customers in Riverside. They handle approximately 347,000 calls and 224,000 walk-in customers annually. Customer service supports requests for electric, water, sewer, and sanitation services as well as credit and collections, write offs, UTILICARE (medical assistance), SHARE and HEAP (low-income assistance), as well as payment option programs such as the Level Pay Program. They also take calls for street light repairs, dispatch emergency calls, and oversee the City’s 311 call center for non-emergency calls and emergency referrals. Customer Service operates out of the Utilities Plaza at Orange and Fifth Streets (in the process of relocating to Ninth and Orange) as well as the Customer Resource Center on Madison five days a week.

*Field Services / Metering* - Responsible for the physical initiation of services, reading of electrical and water meters, investigation of diversion of services, and delivery of 48-hour shut off notices for non-payment. Each fiscal year, this group conducts over 1.9 million meter readings, processes over 95,000 service orders for service initiation or termination and delivers an average of 100,000 48-hour notices.

### Energy Delivery

The Energy Delivery Division is made up of three groups: Energy Delivery Engineering; Substation Construction, Maintenance, and Energy Control; and Transmission / Distribution Construction and Maintenance.

*Energy Delivery Engineering* – This group is divided into four parts: System Planning/Communications, Major Projects, Customer Engineering, and Substation Engineering. The Energy Delivery Engineering team is responsible for planning adequate transmission and distribution capacity to supply the needs of all electric customers. The reliability of service at a system level is reviewed and recommendations are made for improvements, which is eventually made into the Capital Improvement Program for Transmission and Distribution Projects. The Energy Delivery Engineering team provides engineering, design, and project coordination services for new electric services and upgrading of existing services, as well as mapping of utility electric facilities. Customer Engineering staff designs the necessary electric utility facilities and coordinates with other departments in completing an applicant’s project. After construction, facilities are mapped electronically into a GIS database to serve as a master reference for operations, engineering, and facilities management.

*Substation Construction Maintenance and Energy Control* - Consists of construction teams that build additions to existing substations, maintain substation equipment (such as transformers and circuit breakers), and provide inspection services for substation projects by outside contractors. Another team within the group tests and maintains additions to substations, manages installation and maintenance of all electric meters, distribution transformers, and other distribution equipment within

the city. Utility dispatch is also part of this group. Dispatch monitors and controls the energy delivery system, responds to customer calls, and dispatches field crews. This center runs 24-hours a day, 365 days each year.

*Transmission Distribution Construction and Maintenance* – This group is primarily tasked with system construction and maintenance of the overhead and underground transmission and distribution electric lines that serve the city. This group also provides electrical emergency response, outage response, and maintenance of the city's street light system.

### Finance

The Finance Division is primarily responsible for the financial stability of Riverside Public Utilities. The division is comprised of three primary groups: Finance/Rates/Budget; Utility Billing and Facilities Management. In addition this team coordinates and serves as the primary liaison between Riverside Public Utilities and the Finance, Human Resources, Information Technology and General Services Departments

*Finance / Rates / Budget* - Responsible for preparing and analyzing financial information, including budget and debt management, to ensure the overall fiscal health of RPU. The group is also instrumental in long-term financial planning as well as long range resource planning. They provide periodic financial reports and critical financial data for Board and City Council review and approval. This group also develops annual revenue requirements taking into account all anticipated activities planned by executive management. They ensure appropriate rate structures for revenue requirements, determine the five year capital improvement program budgets, as well as internal overhead and cost allocation plans. They participate as an active member of finance/fiscal and audit committees for joint agency projects such as Intermountain Power Project, Southern California Public Power Association and San Onofre Nuclear Generating Station.

*Utility Billing* – Responsible for the daily processing, quality control and issue resolution for over 100,000 bills produced monthly, generating greater than \$300 million in annual revenue.

*Facilities Management* - Responsible for maintaining and improving eight office space locations which house 650 Utility employees to effectively meet the RPU goals for office space planning which include: enhancing service to the public; providing a suitable workplace for employees; providing certainty in office space; obtaining the best value/return on investment; and providing a centralized location for employees.

### Operational Technology

*Operational Technology (OT)*- Responsible for planning, implementing and maintaining a Riverside Public Utilities' (RPU) Operational Technology (OT) infrastructure. OT's objective is to ensure that its infrastructure is modern, secure, architecturally flexible and cost effective. OT also provides daily operations of core systems portfolio supporting every aspect of RPU business processes.

Responsible for providing quality and timely customer support to RPU users with a that meets/exceeds agreed upon SLAs and performance metrics.

In partnership with the business divisions, OT is responsible for evaluating, developing and supporting quality, cost-effective applications and operational technology solutions that directly support RPU business operations.

OT plays a strategic and catalytic role by proactively partnering with its functional counterparts to identify new opportunities where technology can drive greater business effectiveness and efficiency.

OT is a strategic partner to RPU's business divisions. We provide fully-integrated solutions that help our functional counterparts use operational technology more effectively and efficiently and have a positive effect on reducing RPU's overall operating costs and improving customer satisfaction.

OT works with business division to modernize business processes and improve infrastructure management practices by executing on the intelligent deployment of operational technologies.

*Implementation Office (IO)*-Responsible for project delivery within the OT. IO has end-to-end responsibility (from System-Planning to Deployment) for enterprise Operational Technology (OT) projects.

*Technology and Mobility Office (TMO)* - Responsible for ensuring that Utilities business priorities, technology strategy, and service delivery functions are orchestrated in an integrative manner. The TMO develops executes, maintains RPU's Mobile, Innovation/Advanced Analytics, and Geographic Information System (GIS), Customer Self-service strategies and systems.

*Information Security (ISO)* - Responsible for implementing strategic initiatives for Utilities Operational Technology Security (Cyber Security) Program and Compliance (Information Management, Cyber Security, Software Licenses, Change/Configuration management) activities, and the Disaster Recovery and Incident Response processes.

*Systems & Operations Office (SOO)* - Responsible for providing day-to-day oversight and management of all OT systems (Industrial Control/Business), maintenance and support. Responsible for planning, managing, and operating complex information systems to ensure system function, availability, performance, and support, including Help Desk (OT Solution Center) operations.

*Creativity/ User Experience (UX) Design*- Responsible for assessing existing systems communication methods and application User Interfaces (UI) for usefulness, usability, visual design integrity. Responsible for designing visually compelling representations of application's high-level interaction and navigation and collaborating with technical staff in implementing highly intuitive UIs.

## Resources

The Resources Division is responsible for procuring maintaining and managing the utilities' wholesale and renewable power. The Resources Division also participates in joint action services and projects through the Southern California Public Power Authority (SCPPA). To manage these responsibilities, the division has five groups: Power Planning / Power Marketing; Power Projects / Contracts / Settlement; Power Resources; Power Scheduling / Operations; and Generation. By Q3 2017, RPU expects to establish an additional function of data analytics to be housed in the Resources Division.

*Power Planning / Power Marketing* - Responsible for assessing both the short and long term power needs of the utility. The Planning/Marketing group is also responsible for coordinating Riverside's commitment to being recognized as a "green city."

*Power Projects / Contracts / Settlement* - Responsible for the management of RPU's generation and transmission projects as well as negotiating and administering the utilities' power-supply related contracts and tariffs. They also actively participate in all federal regulatory, legal, and electric market redesign activities affecting RPU's power supply interests. The Projects group is responsible for managing RPU's interest in interstate transmission facilities as well as its joint participation with other agencies in generation assets. The Contracts group negotiates and implements long-term resource agreements and administers over two hundred existing power supply related contracts and tariffs. The Settlement group reviews all power supply transactions after-the-fact in order for payment or invoicing to occur.

*Power Resources* - Responsible for procuring, developing, managing, and marketing the utilities' wholesale power and interstate transmission resources to serve Riverside's citizens with reliable electricity.

*Power Scheduling / Operations* - In order for RPU to receive the power provided by the resources in its portfolio, the energy output from those sources must be reported to or "scheduled" with the Independent System Operator (ISO) and any other entities affected within the boundaries of the Western Electricity Coordinating Council (WECC). They are responsible for the scheduling of RPU's power supply resources to meet the needs of utility customers. This group also provides the Settlements group information necessary for billing or payments to occur.

*Generation Facilities Group* - Oversees the Springs, Riverside Energy Resource Center (RERC), and Clearwater Cogeneration electric power plants. The Generation Group is responsible for the operation and maintenance of all sites.

*Data Analytics* – Will be responsible for utility wide coordination of data analytics and will serve as subject matter experts for the other utility divisions.

## Water

The Water Division is made up of four groups: Engineering; Water Resources; Water Field Operations; Water System Operations.

*Engineering* - Responsible for all long-range facility planning, budgeting, grant writing, design, construction, management, and mapping/archiving of construction-related documents. Also handles coordination of all development-related activity and infrastructure.

*Water Resources* - Responsible for estimating future water demands, developing cost effective water supply alternatives, preparing environmental documents for the new supply sources, managing, and safeguarding the quality and quantity of the City's water resources. This includes collecting, analyzing and maintaining groundwater information from the entire watershed.

*Water System Operations* - Responsible for production and distribution of domestic, irrigation, and recycled water to meet the daily demand of the water system. The section maintains all the assets necessary to effectively and efficiently produce and deliver water to the City's customers. This

includes ensuring optimal water supply management and storage for maximum day and emergency demands. The Section is managed through four Units: Operations; Water Quality and Record Keeping; SCADA; and Maintenance.

*Water Field Operations* - Responsible for the construction and maintenance of water transmission and distribution systems. The Administration section of this group is responsible for the coordination of daily planning, supervision, and general administration for construction and maintenance. The System Construction section is responsible for water main replacements, system connections, fire hydrant installations, and installations of new and replacement water services. While the Maintenance section maintains the existing transmission, distribution, and irrigation/canal systems. The Meter Shop installs, replaces and maintains water meters, as well as tests new and existing meters for accuracy.

## Appendix B – Division Vision Statements

## Office of the General Manager

Over the next decade, RPU will transform its workforce and technology resources to address the challenges associated with our industry's transformation. By leveraging both technology and changes in our workforce synergistically, we will advance RPU's capabilities and efficiency to deliver the highest quality services in all aspects of our organization. RPU 2.0 will operate in a collaborative manner, with cross-organizational teams being the norm, not the exception.

Tomorrow's RPU will maximize the opportunity and value of current and future vacancies to transform the utility workforce. Combining the latest intelligence in human capital management with technology, including a robust talent management system, tomorrow's workforce will be the most prepared workforce in our industry's history. Tomorrow's workforce will be built on the best each generation has to offer; leveraging the strength of Millennials as problem solvers, Generation X loyalty, Baby Boomer experience, and the yet to be discovered traits of future generations. From identification of the right skill sets for each job, reflected in targeted and data driven recruitments through on-boarding, orientation, and career-long training in partnership with local colleges and universities, our next generation workforce will be acutely aware of the big picture while focused on delivering world class customer service.

Safety of our employees, customers, clients and vendors will be at the heart of everything RPU does in the future. Through culture and climate, safety will be reflected as a true core value for RPU. Beginning with employee onboarding and continuing through career-long training, safety will be a top-of-mind issue for every member of the RPU team.

Current initiatives in workforce development that are in their infancy today will be mature by 2020, including programmatic use of Employee Development Plans, Career Ladder training, contract education, education sponsorship programs and 24x7 employee access to our Learning and Talent Management systems. Broader awareness of training outcomes from employee participation in local, regional and national conferences and seminars will be routine as we standup new knowledge sharing tools and Communities of Practice networks.

RPU's property management strategy and approach will be transformed from the present passive/reactive model to a proactive program that engages community-based real estate professionals to monetize passive real property assets. This transformation will be supported through enhanced policies that operationalize our portfolio management efforts and technology that provides up to date information about the performance of our real property assets.

Communities of Practice networks who are subject matter experts and interested employees, will support our legislative and regulatory risk management offices' ongoing efforts and long range goals to "impact positively legislation and regulations at all levels of government." These Communities of Practice networks will build on the good work already underway that support and enhance cross-division communication in the regulatory arena. Tomorrow's offices will seamlessly transition from legislative advocacy, supported by our outside consultants, trade organizations and joint powers agencies, through regulatory risk assessment to regulatory advocacy, monitoring and reporting.



### Customer Relations

Customer Relations touches all other divisions and serves as the lens to which our customers and stakeholders see the work that's being done for the future. A new level of communications will be required to allow customers to benefit from the possibilities of tomorrow. How will electric transportation impact employers? How will real-time pricing and demand response programs help customers better manage their energy needs? Why is it an advantage to have a locally owned utility? Being customer centric means placing the customer at the center of everything we do. To use the analogy of a wheel, the customer is at the center, and customer relations is the wheel holding all the divisions, or spokes, together on behalf of our customer. Operationally, everything RPU does as an organization will touch the customer and the Customer Relations Division is now and will be an integral part of bridging our customers to our organization in a manner that engenders trust and value. In the future, communicating the value of a local asset and transforming the traditional utility relationship from passive to active will be critical to our core business plan.

During the past 100 years or more, the customer relationship with the utility was a passive one; they used services, and the utility delivered a bill. Today many customers have access to the same information as their utility. They understand more about their services than ever before and choose to passively engage with their service provider if they are able. The availability of information and the desire to see the relationship between the services they use and the bill drives their expectations. Although many utilities around the nation realize the future needs to be more customer focused, the work needs to begin today. In Riverside, we have identified that need to have the technology and services available in the future.

As customers become producers, their needs and expectations will change. We want to consider a different set of needs that encompass servicing and supporting generation, demand response, EVs, energy and ice storage, behavioral programs, and traditional energy efficiency. Mobile technologies demand increased expectations of convenience from the customer to perform functions that can control their energy use.. How we communicate and interact with them will enhance their customer experience and distinguish us from the many other service providers vying for their limited time and attention.

RPU currently provides traditional means of communication channels with their customers and will continue to do so. However, email, SMS, apps, and our mobile friendly website will work to provide our customers information the way they want to send and receive it, such as text, email, phone, social media, and the web. Fulfilling the customer's needs during moments that matter requires us to reimagine current business processes to make sure our interactions are effortless through the customer's eyes. Imagine a rebate app that allows you to take a picture of a receipt to apply online without requiring anything being mailed at all. Further, imagine if that app were able to suggest to a customer that they were only a few points away from a much bigger rebate, suggest what they should do next, allow them to order it, and still process the rebate with little effort on their part but also providing a better connection to RPU.

RPU needs to ensure availability of customer usage data on demand, information on savings, multiple payment options, and easy access to customer service via phone, chat, and email. New products and services will be developed and offered by RPU such as Demand Response, Time of

Use Rate Products for EV's, Solar PV customers services such as cleaning and routine maintenance. RPU overall will need to develop more customer-centric rules and rates.

In a utility 2.0 world, data and information that leads to an enhanced customer experience can only come from a robust customer information system. Our Operational Data Management System will need to be able to talk to our Customer Information System so it can impact outage response times and feed data to customers who choose to pay attention to their usage behavior. In turn, the Customer Relations staff will need to be prepared to help our customers in a broader context and with more complex expertise than ever. As customer choice expands so must the knowledge base of the staff that supports them.

## Energy Delivery

As we modernize the grid, it will also become “smarter” through the interconnection of devices and applications made possible with technologies that didn’t exist just a few years ago. This smarter grid will **SENSE**, **COMMUNICATE**, and **CONTROL** key devices. The grid will optimize 2-way power flows resulting from distributed energy resources thereby enhancing the reliability of the system.

As we address these challenges, we must build a distribution system that is safe for customers, the public, and our employees. Improved work processes and tools must enhance an already strong safety culture. We must remain vigilant and secure our systems in an environment of growing concerns over potential cyber and physical attacks.

Reliability and resiliency are cornerstones of electric utility service. Our system must be modernized with new equipment, new technology, and improved system protection schemes to reduce both the frequency and duration of interruptions.

With the progressive departure of experienced staff, new employees will be added and trained in innovative programs. Energy Delivery employees must work with other divisions and city departments to optimize work processes to build on a history of great service.

RPU staff must actively evaluate and select new technologies as they emerge. We must leverage RPU’s existing fiber network for expanded uses. RPU must migrate from what has often been a reactive mode of operation to a more predictive and proactive approach.

The greatest transformation to the RPU electric system will be the completion of the Riverside Transmission Reliability Project (RTRP) to address both capacity and reliability for the future of Riverside. RTRP will position Riverside to meet strategic priorities well into the future.

Infrastructure replacement programs must be prioritized to ensure we address critical issues first. As substations are upgraded, 4kV to 12kV conversions will advance at a rapid pace in parallel with infrastructure replacement and the modernization of the grid. The City’s streetlight system will be completely converted to energy efficient LED lighting.

The information to operate and utilize the modern grid will come from many new sensors and meters that communicate continuously. Cyber and physical security considerations will be paramount as new devices and communication channels are evaluated and implemented. A smarter, modern grid empowers our customers with exciting new options and optimizes dynamic power flow improving resiliency, efficiency, and the reliability of the system.

### Finance

Over the next decade, with new technologies emerging, RPU will need to change and improve current rate designs and revenue recovery practices to support customers' energy efficiency goals and develop distributed generation, renewable resources and other services and products for the benefit of the utility and its customers. Developing new rate structures, which is controversial but necessary-- to more equitably recover costs from customers that benefit from specific services will include charges for use of infrastructure, restructuring of time of use rates, and providing more service and rate options that customers now expect. This change will not be overnight, RPU must have a deliberate process to evaluate utility costs and operational issues to adequately and correctly determine the proper course of action. In this analysis on new rates and cost structures, RPU must take into consideration current industry trends relating to workforce, infrastructure, regulatory issues, new technologies and customer expectations. We must move towards pricing/rates that create value for our customers.

Our solid fiscal foundation will provide us with the level of investment to begin to move forward. With implementing a solid financial plan, we will continue to maintain the highest possible financial ratings and healthy reserves for both electric and water utilities while continuing to meet our customer-owners' expectations, as well as our service commitments.

From a workforce perspective, with these new emerging technologies, within the finance division there will be a need for more individuals with technical analytical and excellent communication skills to collaborate with other divisions sharing knowledge and promoting best-practices throughout the utility. Teamwork, collaboration, and robust communication across sections and divisions will be typical of a normal work day at "1RPU" where diverse employees intentionally function as one utility. In support of the City's goal of service, our tenacious attention to customer value will be punctuated with moments of "Wow" customer service that 1RPU employees consider a routine and enjoyable privilege.

By 2020, we will be fully automated in our financial reporting processes to improve efficiencies in our business practices and provide more timely information. Other modern tools should include the just-in-time information necessary for each job function. Advanced technology, mobile tools, and data analysis/visualization will advance to a level that may appear out of reach at the moment. The myriad of data about our system and customers will be integrated and conveniently available to those that need it in their service to RPU customers. In addition, improvements will continue to be made to RPU facilities to support our workforce with technology and work space that accommodates a cohesive and collaborative environment to provide excellent customer service.

Lastly with RPU implementing automated meter infrastructure (AMI) and other advanced technologies, the utility needs to begin looking at best practices of other utilities billing systems to begin anticipating our needs before the next billing system upgrade. It is apparent that the current EnQuesta system should not be utilized for the same duration as the previous system. Since the CIS system is integral to every aspect of customer contact, communication, and interaction, we should look to replace it somewhere between the seven to ten year marks. In a utility 2.0 world, data and information that leads to an enhanced customer experience can only come from a robust customer information system.

### Operational Technology

Operational Technology (OT) was just recently established at the Riverside Public Utilities (RPU) with the goal of providing both strategic direction and operational oversight over the various information technology initiatives at the utility. RPU's 2015 Strategic Technology Plan recommended that the utility "create a new organizational structure, add new resources, and provide training for existing staff" to oversee the successful implementation and operation of its newly developed technology vision. Establishment of OT Department is a significant milestone for RPU's timeline to implement the strategic plan.

RPU's strategic technology vision recognizes the crucial role of technology in improving operational efficiency, reliability, and customer satisfaction as well as supporting the broader initiatives in the area of economic development and community service to of Riverside citizenry.

Twenty two advanced operational technology projects either underway or will be planned, launched, or completed in alignment with the adopted Strategic Technology Plan. Each of these major technology initiatives will significantly contribute to RPU's overall strategic goals.

Crucial to the implementation approach will be a careful consideration of business value, identification of specific and tangible business benefits, and emphasizing design and architecture over standalone performance to ensure that the sum of the parts add up to much greater value than the individual components. RPU's planned Advanced Metering Infrastructure (AMI) initiatives integrated with its Customer Information System (CIS), Outage Management System (OMS), Geographic Information System (GIS), Distribution Management System (DMS) is exemplary of how integrated technology components *together* will deliver outstanding benefits in the area of operational efficiency, customer service, and reliability of operations.

Deriving quality and efficiency benefits from streamlined and automated business processes is just one aspect of our technology vision. We have the opportunity to strategically leverage our operational systems with modern mobile technologies and truly transform ourselves into a real-time utility (Digital and Connected) – where critical information is available in real time for making dynamic and smart optimum operational decisions in the area of customer service, system maintenance, and demand management. Longitudinal analysis of the very same information through advanced analytics will drive new strategies in multiple operational areas.

The strategic positioning of Operational Technology will play a very significant role in the context of RPU's overall value delivery model. Precisely because of our strong record of delivering high-quality utility services to our customers they tend to take their high expectations of this service for granted and we blissfully remain "out of sight and out of mind." But this passive interaction with consumers is fast changing, and RPU will likely face greater attention and scrutiny from customers and other stakeholders with expected rate increases and environmental consciousness. In addition to safe and reliable water and electricity, customers are seeking the kind of control, flexibility, transparency, and self-service options they have become accustomed to receiving from other services providers. They demand first-rate customer service, they demand transparency of communications, they want up-to-the-minute information, when and how they want it, and they turn to online and mobile channels to access information, communicate proactively, access support, provide feedback, and carry out transactions. This technology-mediated deep engagement process

matched with equally impressive operational performance will propel RPU to become the model utility that we have boldly envisioned.

Operational Technology will play a strategic and catalytic role by proactively partnering with our functional counterparts to identify new opportunities where technology can drive not only improved operational performance but also enable the Utility as a whole to embrace new technologies and serve and engage the customers in new and innovative ways.

We are committed to the idea that business process improvements that are carefully designed and implemented can be a source of tremendous value to our functional organizations. We will partner with our internal customers and support them streamline and automate the day-to-day business processes to ensure that there is sustained value in all that we do.

Operational Technology also envisions itself as a collaborative partner in the City's plan to streamline, rationalize, and develop effective governance structures for various information technology programs and assets (Geographic Information System, Dark fiber network, etc.).

It should not surprise anyone that Operational Technology (OT) has become the *soft* infrastructure in Riverside Public Utilities (RPU), providing the connectivity and harnessing the data-derived intelligence to benefit its customers and citizens. It is therefore useful to approach OT investments in a similar manner as we approach investments in physical infrastructure – essential and continuous.

It is also important to recognize that Operational Technology also has the potential to become the soft underbelly of our utility considering the myriad of IT security challenges that critical infrastructure organizations face. Vigorous defense strategies against cyber-attacks, thoughtful contingency planning, and constant, aggressive, and relentless monitoring of our systems will have to be one of the top priorities of our new OT organization.

### Resources

The electric industry is undergoing transformative change more rapidly than any other time in its 100+ year history. The transformation is largely driven by:

- Technological Advances Climate
- Change & Environmental Concerns
- Increased Customer Expectations

In the future, RPU services will be more customer centric, with RPU maintaining its obligation to serve—although the services provided will be vastly different than today. Applications will allow customers to monitor energy usage and power prices, and when prices are high, discharge (e.g., sell) energy from their electric vehicles or storage devices or remotely reduce power consumption (thereby costs) through their home energy management devices, or when prices are low—charge their devices (e.g., buy energy), or adjust power usage at their home remotely through their phone or other devices. Introduction of more applications will escalate for connected customers to choose what technologies to employ. The convenience offered through smart devices—gather information, purchase products, contact customer service, pay bills, book travel, price compare, control thermostats, sprinklers, video monitoring, etc., is unprecedented. RPU must facilitate the “convenience” wave that is coming.

Riverside’s power resource mix will be more sustainable, predominantly renewable using a variety of technologies, with more locally-sourced distributed energy resources (DERs)—some behind the customer meter for those customers that choose to self-provide and more demand response resources to help facilitate the effects of the proliferation of distributed energy resources on the distribution grid. The balance of resources will include some nuclear and large hydro, along with the flexibility of natural gas to balance the integration of the intermittency of renewables as well as insuring local reliability to backstop high voltage grid issues. The shift away from large station, fossil-fueled generation is necessary to reduce greenhouse gases as mandated at both the state and federal levels. This shift will simultaneously have a profound impact on our rate structures and (if not properly managed) our ability to ensure equitable rate recovery across our customer base.

The changes in the industry are already occurring, with much work still to be done—during a time of retirements of our most experienced personnel. The change necessary to move RPU toward Utility 2.0 are not without impacts. At times, these changes/mandates result in new risks that arise requiring mitigation through new/additional rules and/or new equipment or products

RPU must position itself to be flexible, adaptable, and resilient. This industry is very complex and becoming more so. City (City Manager, other departments, Public Utilities Board and City Council), and as importantly--community support, is critical to determining a successful RPU business continuity model. This is no easy task for a 100+ year old department, with a significant amount of static, institutional policies and procedures in place and legacy infrastructure built for yesterday’s technology, but not robust enough for a customer-centric Utility/Riverside 2.0 experience. The amount of change necessary that is known today is immense, with more unknown changes likely required for Utility 2.0 and Riverside 2.0.

### Water

The Riverside Public Utilities Water Division (Water Division) is a steward over a water system with an estimated value of \$2 Billion which provides domestic and non-potable water to its customers. Inheriting water supplies that were secured by early leaders and benefitting from the forward thinking of the “Safe WATER plan” in 2006, the Water Division will continue to protect and enhance water supplies, operate efficiently, and manage infrastructure to provide high quality water and the lowest reasonable cost while enhancing the long-term value of the water utility. Moreover, the Water Division will learn from and emulate organizations that provide a high level of customer service in order to improve its customers’ experiences and improve their pride in the water utility. The end result will be water customers who use water to enhance their quality of life in an efficient and cost effective manner.

The Water Division will embrace technology to provide a greater level of service at a lower cost to the customer. Field personnel will use mobile solutions to work smartly and operate the system more efficiently. Professional staff will use database and analytic tools to stretch capital expenditures as far as possible. Everyone will use data to help the customers use water to enhance their quality of life at the lowest possible cost.

The Water Division relies on groundwater and will protect and enhance this resource by capturing storm water, recharging groundwater supplies, and expanding recycled water service. Projects such as the Riverside North Aquifer Storage and Recovery (Rubber Dam) project will slow down storm flows and redirect it to nearby recharge basins. Additional recharge basins in Grand Terrace and North Riverside will help maintain groundwater levels and store excess water.

Recycled water is a drought proof supply and is very inexpensive relative to imported water. Currently available only around the treatment plant, recycled water service will expand to several parks, schools and other businesses with the construction of the Jackson Street project. Moreover, Riverside’s recycled water will create habitat for endangered fish as part of the Upper Santa Ana River Habitat Conservation Plan (HCP). This HCP will also provide opportunities to expand recycled water use along the City’s northwestern edge.

Along with enhancing water supplies, the Water Division will work to preserve and enhance the Gage Canal, which is one of Riverside’s greatest treasures. Gage’s well fields and delivery system will be modernized to improve reliability and expand service to all Gage territory customers, including micro-farmers.

In the end, the Water Division will provide high quality water at an exceptional cost along with world class customer service.



## Appendix C – Biennial KPI Targets

Key Performance Indicator	FY17 Target	FY 18 Target
<b>Call Center</b>		
Customer Service Center answered call rate, monthly	95%	95%
311 answered call rate, monthly	95%	95%
Customer Service Center call resolution - first call, monthly	80%	90%
311 call resolution - first call, monthly	80%	90%
<b>Counter/Develop Center</b>		
Plan checks completed in City specified timeframe	100%	100%
Customer design projects completed within timeframe	100%	100%
Solar PV meter installations completed within 3 days	100%	100%
Happy or Not customer rating, monthly	80%	80%
<b>Billing &amp; Rebates</b>		
Customer billing accuracy	98%	98%
Rebates completed within timeframe	100%	100%
<b>Satisfaction Ratings</b>		
Key Customer Visitations satisfaction rating	90%	95%
RKS Customer Satisfaction rating, annual	90%	90%

Key Performance Indicator	FY17 Target	FY 18 Target
<b>System Reliability</b>		
SAIDI – System Average Interruption Duration Index	50	50
SAIFI – System Average Interruption Frequency Index	1.15	1.15
CAIDI – Circuit Average Interruption Duration Index	43.5	43.5
MAIFI – Momentary Average Interruption Frequency Index	1.0	1.0
<b>Asset Replacement and Renewal</b>		
Miles of Pipeline Replaced Annually	5.5	5.5
Number of Poles Replaced Annually	200	200
Substation Relay replacements annually	19	40
<b>Cyber and Physical Security</b>		
Cyber Security Projects completed annually	77	33
Physical Security Projects completed annually	38	14
<b>Generation Resiliency</b>		
RERC Black Start Availability	100%	100%
Springs Black Start Availability	100%	100%

Key Performance Indicator	FY17 Target	FY 18 Target
<b>Financial Strength</b>		
Debt Service Coverage – Electric Fund	Not less than 1.75	Not less than 1.75
Debt Service Coverage – Water Fund	Not less than 1.75	Not less than 1.75
Undesignated Cash Reserve – Electric Fund	\$125M - \$198M	\$130M - \$206M
Undesignated Cash Reserve – Water	\$28M - \$43M	\$32M - \$50M
Bond Rating – Electric Obligations	S&P AA-	S&P AA-
Bond Rating – Water Obligations	S&P AAA	S&P AAA
<b>Affordability &amp; Competitiveness</b>		
Weighted Average Rates - Electric	Less than SCE	Less than SCE
Weighted Average Rates – Water	Less than neighboring utilities	Less than neighboring utilities
<b>Additional Revenue</b>		
Collection Rate	\$147,000	\$146,000
New Revenue – Water Fund	\$3,000,000	\$3,200,000
New Revenue – Electric Fund	\$6,700,000	\$5,100,000

Key Performance Indicator	FY17 Target	FY 18 Target
<b>Supply Portfolio</b>		
Greenhouse Gas Emission level	<1,200,000 allowances	<1,200,000 allowances
Percent Renewables in portfolio	27% (CY 2017)	29% (CY 2018)
Recycled Water Deliveries	200	500
<b>Conservation and Efficiency</b>		
Water Conservation – SBx7-7 Target Compliance (gpcd)	229	223
Rooftop Solar Photovoltaic – SB1 Target Compliance	\$2,500,000	\$2,500,000
Energy Efficiency Annual kWh savings	19,000,000	20,000,000
<b>Utility Operations</b>		
E-bill adoption rate	15%	15%

Key Performance Indicator	FY17 Target	FY 18 Target
<b>Capital Projects</b>		
Energy Delivery CIP complete on budget on time	80%	90%
Water CIP complete on budget on time	80%	90%
Operational Technology projects completed on budget on time	80%	90%
<b>Forecasting</b>		
Annual Power Forecast accuracy	85%	85%
Annual Water Forecast accuracy	85%	85%
<b>Regulatory Compliance</b>		
Water Quality compliance	100%	100%
NERC/WECC report compliance	100%	100%
<b>Supply</b>		
Generation availability	95%	100%
Water Supply Independence (local resources)	100%	100%
<b>Operations</b>		
Street light repair cycle-time (days)	3	3
Water leak repair cycle time – Medium criticality and higher (days)	10	10

Key Performance Indicator	FY17 Target	FY 18 Target
<b>Safety</b>		
OSHA Reportable Incident Rate	11.25	10.00
Vehicle Incident Rate	21	19
Claims Cost Paid (Workers Comp)	\$140,000	\$135,000
<b>Training</b>		
Training \$'s per employee	\$650	\$700
% of employees with formal development plan	40%	60%
% of employees with U2.0 competency assessment	10%	20%
<b>Recruitment &amp; Retention</b>		
Vacancy Rate	15%	10%
Turn Over Rate within 1 <sup>st</sup> 12 months	3%	2%
Recruitment Cycle Time (days)	150	120
Internal Promotion Frequency (% positions filled internally)	50%	50%

## Appendix D – Supporting Documents

This Strategic Plan is built upon and summarizes input from the Utility 2.0 Roadmaps that were approved by the Board of Public Utilities and City Council. A copy of the final Utility 2.0 Roadmap presentation is located [here](http://www.riversideca.gov/utilities/about-rpu/utility2.0.asp). (<http://www.riversideca.gov/utilities/about-rpu/utility2.0.asp>)

RPU's Finance 101 document and presentation to the City Council is located [here](http://aquarius.riversideca.gov/clerkdb/DocView.aspx?id=203238&dbid=0). (<http://aquarius.riversideca.gov/clerkdb/DocView.aspx?id=203238&dbid=0>)

## Appendix E – Riverside 2.0 Update

RPU's updates to the City Council Strategic Plan is located [here](http://www.riversideca.gov/pdf/2015/StrategicPlan.pdf).  
<http://www.riversideca.gov/pdf/2015/StrategicPlan.pdf>