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CPUC Customer Information Systems Workshop

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Objective

Provide information about SCE's current systems challenges, the timing and approach for the CS Re-Platform (CSRP) project, and integration with the TOU and CCA initiatives.

✓ Current State of SCE's Customer Systems

✓ Drivers for Replacement

✓ Timing and Scope

✓ Customer Impacts

✓ CCA/DA and TOU

CSRP is pending approval in SCE's GRC Phase 1 (A.16-09-001)

Current State of Legacy Customer Service System (CSS)

Age of Legacy System

- SCE's mainframe-based CSS system was designed in the 1980s and has been continuously modified over the last 28 years

- CSS has not undergone a major replacement since its initial implementation, which preceded mass use of email, Internet, graphical user and standard data interfaces

Ownership of Legacy System

- SCE owns all of the hardware for its CSS system and maintains licensing and software agreements to operate the software

- SCE owns approximately 90% of the 220+ applications in CSS, which requires specialized knowledge to operate and maintain

Labor Mix to Maintain Legacy System

- 20% of the maintenance is performed by SCE labor
- 80% of the maintenance is performed by contract labor
- Maintenance is becoming increasingly difficult due to system stability issues

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Technology Obsolescence and Risk

System obsolescence hampers SCE's ability to meet current and future business needs
Obsolescence is impacting our business today and will only get worse

Aging Technology	+	High Operating Costs	+	Limited Agility for Future

Aging Technology
- Complex and highly customized architecture
- 220+ applications
- Unsupported or obsolete applications
- Increasing complexity and failure risk due to on-going changes
- Decreasing availability of skills and expertise to support applications

High Operating Costs
- High legacy architecture, support and license costs
- Slow and costly to make system changes
- Future efficiencies require more modern and agile technology platform
- System failures and resource-heavy manual workarounds

Limited Agility for Future
- Costly to meet regulatory and customer needs
- Limited analytics and proactive customer engagement capabilities

> ~ 500 incidents per month requiring intervention by service personnel
> April 2015 significant mainframe failure (36 hours unavailable)

Testimony Reference: Exhibit SCE-04, Vol. 3, pages 5-17, 50-56

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Two primary drivers for the Customer Service Re-Platform project

1. Address technology obsolescence and risk
   - Aging technology
   - High operating costs
   - Limited agility for future

Replace Mainframe and Related Systems

2. Improve core Customer Service functions
   - Customer Care
   - Billing and Payment
   - Credit and Collections

Upgrade Customer Relationship and Billing Systems

SCE cannot delay implementing CSRP; obsolescence is impacting our business now and will only get worse

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Customers will experience improved service from SCE

Improved

> Quality, reliability, and availability of usage, rate and billing information

> Information to support customer questions, inquiries, and overall support

> Integration and access to data to support customer analysis and service decisions

> Ability to support new rates and programs and address increasing service complexity

> Customer experience that will be simpler and more efficient

Decreased

> System maintenance costs and overall cost to serve

> System incidents

Avoided

> Risk of customer service system failures

> Risk of providing an insufficient customer experience in core utility transactions

CS Re-Platform is estimated to be a 31 month project

Launch in 2017 and implementation in 2020

Plan 2 months	Analyze 4 months	Design 5 months	Build 8 months	Test 6 months	Deploy 6 months	Stabilize 6-12 months

2017	2018	2019	2020

Ownership

- CSRP will be implemented using SAP software and SCE will pay annual license and maintenance fees

- SCE will receive regular software upgrades from SAP, allowing SCE to stay current on technology developments to meet future customer and business needs

- Data will be stored centrally and fully integrate with SCE's back office systems

System Life

- CSRP is estimated to have a useful life through 2035, or 15 years after go-live in 2020

- SAP's product maintenance and system enhancements will ensure the system remains contemporary

- Industry standard software is less costly to maintain, easier to configure and enhance

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Transition from Legacy CSS System to CS Re-Platform System

Potential Customer Challenges

As with all large scale software implementations, there are inherent risks associated with the implementation that may affect customers:
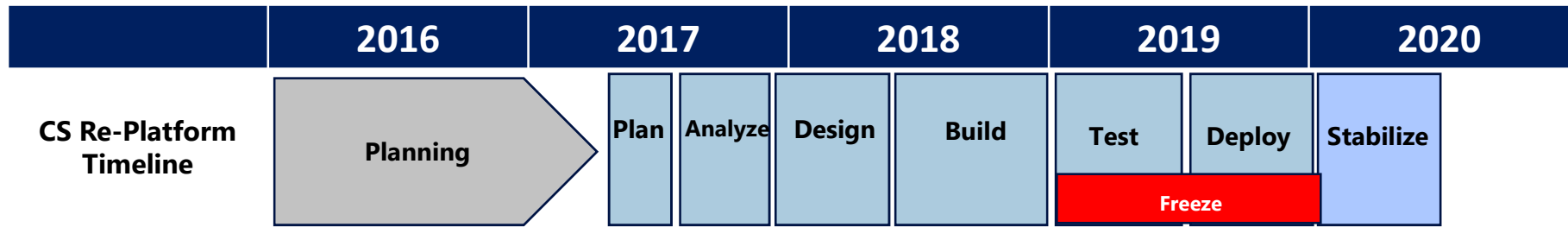
> Data migration errors
> Billing errors
> Delays in bill issuance
> Delays in pursuing collections
> Increased handle times

Efforts to Minimize Customer Impacts

> **Peer Assessments** – Apply best practices from other large utilities with similar projects.

> **System Integrator** – Partnership with experienced System Integrator vendors to oversee the implementation.

> **Data Cleansing and Testing** - Extensive data cleansing and testing efforts to ensure integrity of the solution.

> **Quality Assurance** – Third party reviews to ensure high quality deliverables and risk mitigation.

> **Staff Augmentation During Stabilization** – Increased staffing levels to minimize customer impacts while staff is becoming proficient with the new system

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CSRP involves a "system freeze" in 2019 before going live in 2020

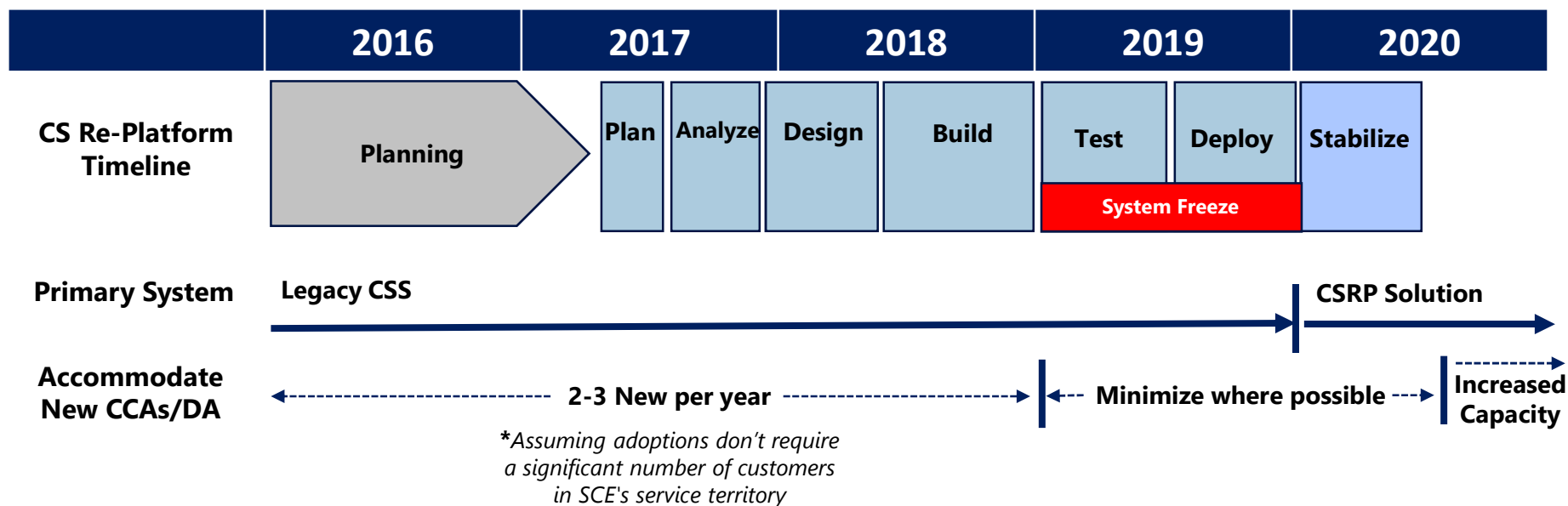| CS Re-Platform Timeline	2016	2017		2018		2019		2020
	Planning	Plan	Analyze	Design	Build	Test	Deploy	Stabilize
						Freeze		

- Implementing new scope or code changes during the CSRP system freeze introduces **significant risk**

- SCE carefully considered regulatory mandates and CSRP project schedules and associated risks, including alternative implementation options

  - Alternate TOU transition timeframes

  - CSRP schedule changes

  - GRC Phase 2 and Rate Design Window changes

- Our objective is to **reduce risks of potential billing system issues** and help **ensure a timely and successful implementation of default TOU**
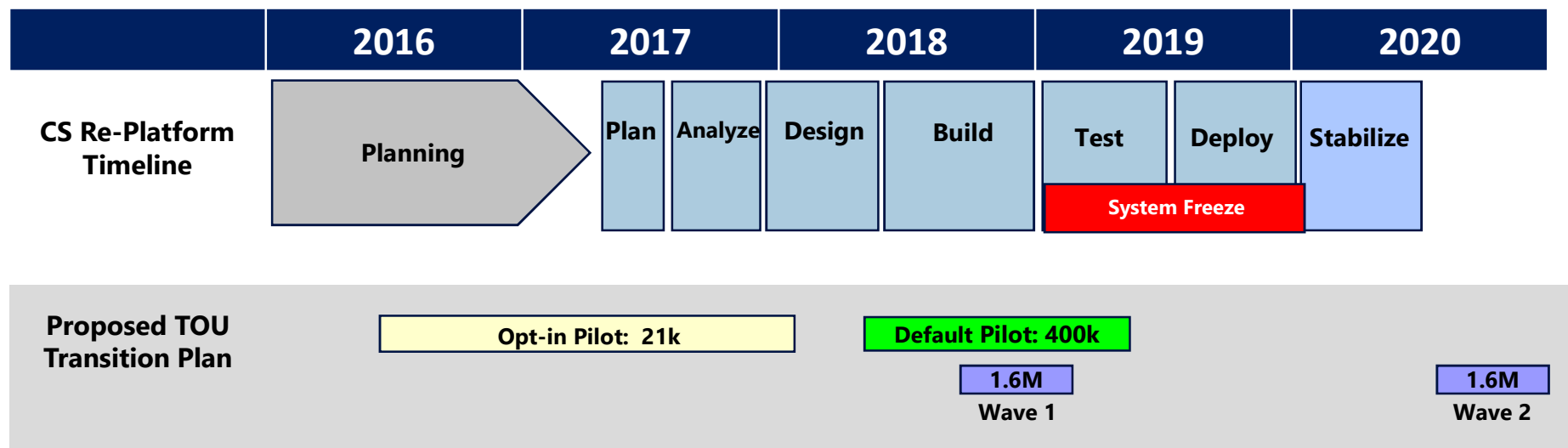
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Impacts of CSRP on CCAs and Direct Access Customers

The CSRP billing system replacement does not impact SCE's ability to accommodate new CCA or Direct Access customers prior to 2019

– SCE would prefer to minimize (where possible) new CCAs and Direct Access customers during the CSRP system freeze and stabilization period from January 2019 through June of 2020.

	2016	2017		2018	2019		2020
CS Re-Platform Timeline	Planning	Plan / Analyze	Design	Build	Test	Deploy	Stabilize
					System Freeze		

Primary System Legacy CSS — CSRP Solution →

Accommodate New CCAs/DA ←-- 2-3 New per year --→ ←-- Minimize where possible --→ Increased Capacity

*Assuming adoptions don't require a significant number of customers in SCE's service territory

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Timing of CSRP and TOU Transition

	2016	2017	2018	2019	2020

CS Re-Platform Timeline

Planning | Plan | Analyze | Design | Build | Test | Deploy | Stabilize

System Freeze

Proposed TOU Transition Plan

Opt-in Pilot: 21k

Default Pilot: 400k

1.6M
Wave 1

1.6M
Wave 2

To minimize risk during the CSRP system freeze, SCE proposes to implement residential TOU rates in two waves :

– **Wave 1 (Q4 2018 -Q1 2019):** TOU transition for non-CARE residential customer segments in cool/moderate climate zones (~1.6M "non-Section 745" customers).

  • Application was filed April 2017, to explain proposed default approach and estimated costs

– **Wave 2 (Q3/Q4 2020):** TOU transition of all remaining customer groups (as to-be-defined by the Commission following Section 745 analysis)

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Impacts of CSRP on TOU Transition

- The modified TOU transition involves defaults on both legacy CSS and the new CSRP solution

  – **The Pilot and Wave 1** will be conducted on the existing CSS system

  – **Wave 2** will be conducted on the new CSRP solution

Impact of any CSRP delays on TOU transitions

Pilot and Wave 1 are not expected to be impacted if a delay in CSRP occurs

Wave 2 should not begin until after CSRP is stabilized and thus could be delayed if a delay in CSRP occurs