New Product Development & Launch
Product Development Process
NPD&L Key Functions and Responsibilities

Effectively and efficiently deliver new customer products, programs and services, and assess existing solutions that achieve Demand Side Management (DSM) energy savings, improves customer satisfaction, and enhances SCE operational excellence.

Key Functions:

Product Management
Solutions Management & Governance
Applied Innovations
Solutions Development & Launch

Key Responsibilities:

Portfolio Governance
Solution Analysis and Quality Assurance
Rates & Programs
R&D Program Management
Codes and Standards
Project Management
Regulatory Compliance and Support
3rd Party Solicitation and Evaluation
Scope of Products and Services We Review

SCE reviews and tests new and existing programs, products and services in the following areas:

**Energy Efficiency and Demand Response**
- HVAC and Controls
- Lighting and Controls
- Plug Loads and Electronics
- Agricultural and Process Loads
- Whole Building Systems/ZNE
- Energy Storage

**Pricing and Rates**
- Enhancement to Existing Rates
- New Rate or Rate Closure
- Regulatory Compliance Basic Rates (CARE, FERA)
- Variable Pricing (PTR, CPP, TOU, RTP)
- “Clean” Rates (NEM, Green, PEV)
- Energy Services (OOR, Non-Energy billing)

**Customer Engagement and Energy Management Tools**
- Tools/Analytics
- Billing & Payment
- Bundles (includes pricing, DR, EE)
- Business
- Data Privacy
Programs & Services Lifecycle and Governance
Establishing a Standard Process

Portfolio Governance Benefits:

- Enables **alignment** to strategic goals and objectives
- Creates **uniform method** and transparency of intake and evaluation
- Informs **other departments** of upcoming launches and their impacts and **prepare** appropriately
- Enables **gate management** through the product development life-cycle
- Allows **tracking to goal** based launches

Standard Product Development Life-Cycle:

- Strategy
- Planning
- Idea Review
- Initiation & Evaluation
- Build & Test
- Launch & Stabilize
- Operations

- The **standard product development life-cycle** provides classic stage gate process driven by statistical data and clear strategic value.
- Functional Integration - Strategically focused product development **lifecycle requires broad view and integration** with a large number of internal and enterprise functions including Product Management, Technology Management, Policy Management, Project Management, Change Management, Marketing & Communications, etc. This **ensures alignment** moving away from silo’d initiatives.

Product = an offering to customers that may include tools, technologies, programs & services
Governance Includes All Levels of SCE Management

Note: Alignment with CS Business Planning, Program Management & Planning, in progress
NPD&L 2014 Intake Process Summary

2014 Total Intake:
292
Existing Projects (2013 & Prior): 39
New Submissions (2014): 253
Pending Gate Assignment & Review: 50

Gate 0 Reviews: 207
Accepted: 73% (151) Rejected: 27% (56)
- Idea/Intake Form
- Prelim. Cost/Benefit
- Estimated Budget & Funding

Gate 1 Reviews: 157
Accepted: 84% (132) Rejected: 16% (25)
- Test Results
- Charter
- Business Case
- IT approval (SCE)
- Revised Budget & Resources
- ScoreCard (SCE)

Gate 2 Reviews: 80
Accepted: 94% (75) Rejected: 6% (5)
- Pilot/Test Results
- Solution Codes
- Workpaper
- Policy/Procedure Documentation
- Project/Launch Plan

Gate 3 Reviews: 49
Accepted: 98% (48) Rejected: 2% (1)
- Launch Report (SCE)
- Stabilization Criteria (SCE)

Gate 4 Reviews: 18
Accepted: 100% (16) Rejected: (0)
- Operation Report (SCE)
- Handoff Criteria (SCE)

Total Projects Approved: 52%
Total Projects Rejected: 30%

2014 Totals: 52% Approved, 30% Rejected 17% Pending, 1% Completed/Closed
Intake Process overview for new customer programs, products, and services.
Working with Industry Partners

Have an idea to help us save energy, reduce demand, or improve operations?

Let us know!

visit on.sce.com/ideas to share your idea
NPD&L Demand Response (DR) Activities
Reaching the Customer

- SCE must be able to create plans and programs utilizing both the “utility” and “3rd Party” pathways to reach customers. This will ensure **customers have the ability to choose** the tool or solution that meets their needs.

- Leveraging both pathways provides SCE with additional functionality that can **enhance energy reliability, reduce the time** required for **DR events**, and can help **improve power quality** for the consumer.
Mass Market: Third Party Load Control

• Objective
  ▪ 2014: Evaluate residential load reduction, leveraging cloud service connection with Smart Thermostats
  ▪ Increase cost effectiveness of existing programs such as SCE’s Save Power Day
  ▪ Reduce load per SONGS Demand Response (DR) mitigation (CPUC A.12-12-017)
  ▪ Enable 3rd parties to evaluate potential of residential DR aggregation market

• Business Drivers
  ▪ Utilize existing customer base to eliminate equipment & installation costs
  ▪ 3rd party performs all marketing for a nominal $20 acquisition fee per customer
  ▪ SCE leverages its existing commercial OpenADR event notification process
  ▪ Leverage SmartConnect meters to enable pay-for-performance incentive

• Costs
  ▪ Customer: $100-$249 for Smart Thermostat with connected cloud service
  ▪ Estimated SCE cost < $80/kW and a Total Resource Cost ratio of over 1.5*

• Benefits
  ▪ Provide up to 0.75kW peak shaving per customer using current rate structure
  ▪ Each dollar invested could return 2-3 times kWh reduced vs. similar driven programs
  ▪ Over 10% take rate after a single touch point
  ▪ Supports SCE’s stated goal to promote open standards (i.e. OpenADR)
  ▪ Additional cost effectiveness identified through modification of current tariff

* 0.9 TRC or greater is typically required – this anticipated rating is the highest of all SCE’s residential DR programs
Opportunities: Large / Commercial Customers

Looking at New Ways to Provide Savings (C&I). Energy efficiency and savings potential is expanding beyond the traditional areas of opportunity.

Energy Management
- EMS & HVAC
- Retrofits
- Lighting
- Zero-net Energy
- Building Efficiency

Transportation Electrification
- Work Place Charging
- Vehicle to Grid – Demand Response & Energy Storage

Data & Analytics
- First Fuel
- Enhanced Energy Advisory and Audit Tools

Quality & Reliability
- Renewable Energy
- Energy Storage
- Power Quality

New technologies have created new opportunities
Small Commercial Study

Why Small Commercial?

• Historically underserved market
  ▪ No assigned account managers
  ▪ Programs focused on large C&I and Residential

• Defaulted to Time of Use (TOU) rates last year

• Moving to Critical Peak Pricing (CPP) in 2017

• More than 400,000 small business customers in SCE territory

• Large concentration in SONGS mitigation area
  ▪ Over 16,000 Commercial GS-1 in Johanna/Santiago
Small Commercial Study

Objectives:
• Identify low cost, easy to understand solutions
• Demonstrate viability of cloud based solutions
• Determine existing technology that may be leveraged
• Test DR parameters (response time, event duration, locational dispatch, etc.) to define a future cost effective program that balances grid needs with customer impact
• Utilize OpenADR 2.0b
Questions?
New Program Development & Launch
Appendix
Connecting with customers in an evolving energy landscape

Leveraging cloud services for the home, health and security will be key for utilities to better engage customers, enable DR and energy efficiency programs and services, and help keep costs low.

Consumer Electronics Food Chain

New products and technologies are capitalizing on cloud-based services & capabilities at variety of levels (from design to aftermarket).
Utilities have options...

- **Partnership** will allow utilities to achieve efficiency and grid reliability goals
- Attain utility **goals** while preserving affordability
- Enables **innovative** customer **solutions**
- Enhances **customer engagement** and preserves the **customer relationship**

### 3rd Party Control
- No agreement with utility
- No benefits for utility
- Missed opportunities

### Shared Partnership
- Agreement with utility
- Both utility, 3rd Parties and customers benefit
- Utility partnered control

### Utility Silo
- No leveraging of opportunities with 3rd parties
- Utility goes it alone, risking higher costs, lower customer engagement
Executing the partnership – important considerations

• Balancing information sharing and customer privacy
  ▪ Data governance, strategy, ownership
  ▪ Compliance

• Open communication standards enables the marketplace
  ▪ OpenADR
  ▪ ESPI / Green Button Connect My Data

• Embrace partnership
  ▪ Co-branding and co-marketing
  ▪ Improve business development
  ▪ Measured risk taking