

IDSM Activity Workshop (R. 14-10-003)



January 22, 2015

SDG&E's IDSM Customer Vision

- SDG&E leverages its unique position as a participant in all aspects of gas and electric operations and its partnerships with local governments and NGOs to identify its customer energy needs and work with customers to create customized solutions for them to actualize its IDSM Customer Vision.

“SDG&E will continue to integrate all rate, service, and program offerings to truly empower customers by providing a one-stop shop that includes pricing options, energy solutions, and services. SDG&E will enable customer access to market players who will provide these various services.”

IDS*M* Vision in Action

Trusted
Energy
Advisor

Customer First

Customer contacts SDG&E customer service regarding their bill or upcoming projects/needs; AEs and programs offer audit services; or through segmentation or AMI data, SDG&E proactively reaches out to customers.

Discover the customer needs through segmentation

Understand the customer's unique perspective

Treat the customer as you would want to be treated

Eliminate utility jargon; be plain spoken

Treat the customer with respect and empathy

Create an easy to do business with environment

Deliver right the first time

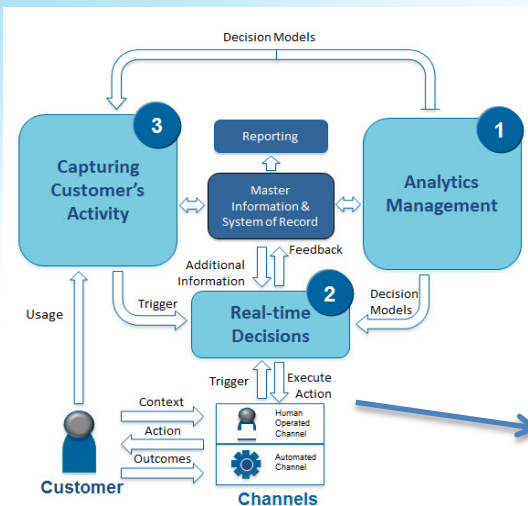
SDG&E works with the customer to understand their specific needs in a holistic/IDS*M* manner, identify programs, alternative rates (if applicable) and develop projects to address their needs. SDG&E brings to the table other market partners to provide all services needed by customers.

Easy to do business with

Right Solutions for Right Customers: Using Data Analytics to Identify IDSM Opportunities



116 million data points



Customer Analytics System

Solution & Services

NAME	TYPE	RECENTLY OFFERED
My Account (MyAccount)	Not Offered	Residential Commercial
Paperless Billing (EBill)	Accepted/Referred	Residential Commercial Accepted/Referred: 8/18
AutoDebit (ATDBT)	Not Offered	Residential Commercial
Appliance Rebates PLA HEER (PLAHEER)	Not Offered	Not Offered
Appliance Recycling Program ARP PLA (PLAARP)	Not Offered	Accepted/Referred
CARE (CARE)	Not Offered	Declined
Direct Install (DIP)	Not Offered	Not Interested Now
Electric Vehicles EV Rate (EVRate)	Not Offered	Information Provided
Electric and Gas Safety (EGS)	Not Offered	Ineligible Customer
Emergency Preparedness Checklist (EPC)	Not Offered	Residential Commercial
Energy Savings Assistance Program (ESAP)	Not Offered	Residential
Energy Use Alerts (EUALERTS)	Not Offered	Residential Commercial
FERA (FERA)	Not Offered	Residential
Group Billing (GRPBILL)	Not Offered	Residential
Home Energy Advisor Survey (HEAS)	Not Offered	Residential
Level Pay Plan (LPP)	Not Offered	Residential
Middle Income Direct Install	Not Offered	Residential

SDG&E's Leading Successful IDSM Efforts

- SDG&E has been implementing IDSM since 2006-2008 before the Commission formalized "IDSM" in the EE Strategic Plan.
- **Sustainable Communities Program:** First IOU "IDSM" program implemented in 2006 for new construction with a Strong focus on supporting customer building LEED certification through integrated design
 - X-Nth (formerly TKG), engineering services consultants, awarded first Gold LEED certification, only the second LEED project in our service territory
 - Solara Apartment Complex, first CEC designated "Zero Energy Net Home" project in 2007
 - Today LEED certified buildings are prevalent in San Diego
- **Integrated Audit and Behavior Programs:** identify energy efficiency, demand response, distributed generation (e.g., solar initiatives) and water savings opportunities; create customer action plans (Sustainability Circles) that lead to projects
- **Partnerships** with industry, local governments, trade associations, educational institutions and water agencies that maximize energy efficiency, demand response, distributed generation and water conservation in the region.
- **Integrated Education and Outreach:** engages customers directly in real-time through SDG&E's optimized website, mobile application, and presence at local events and on social media providing immediate responses on rate options, EE and DR programs, electric vehicles, distributed generation, water conservation, bill payment options, safety, and emergency preparedness, etc.

Continuing IDSM: 2015 IDSM (EE/DR) Program & Budgets

Continuing SDG&E's IDSM successes through its 2015 IDSM Programs:

- Enhancing IDSM audits to include EE, DR and water conservation
- Offering customer behavior program to small commercial customers
- Continuing successful local IDSM ME&O efforts such as partnerships with local CBOs to engage hard-to-reach customers

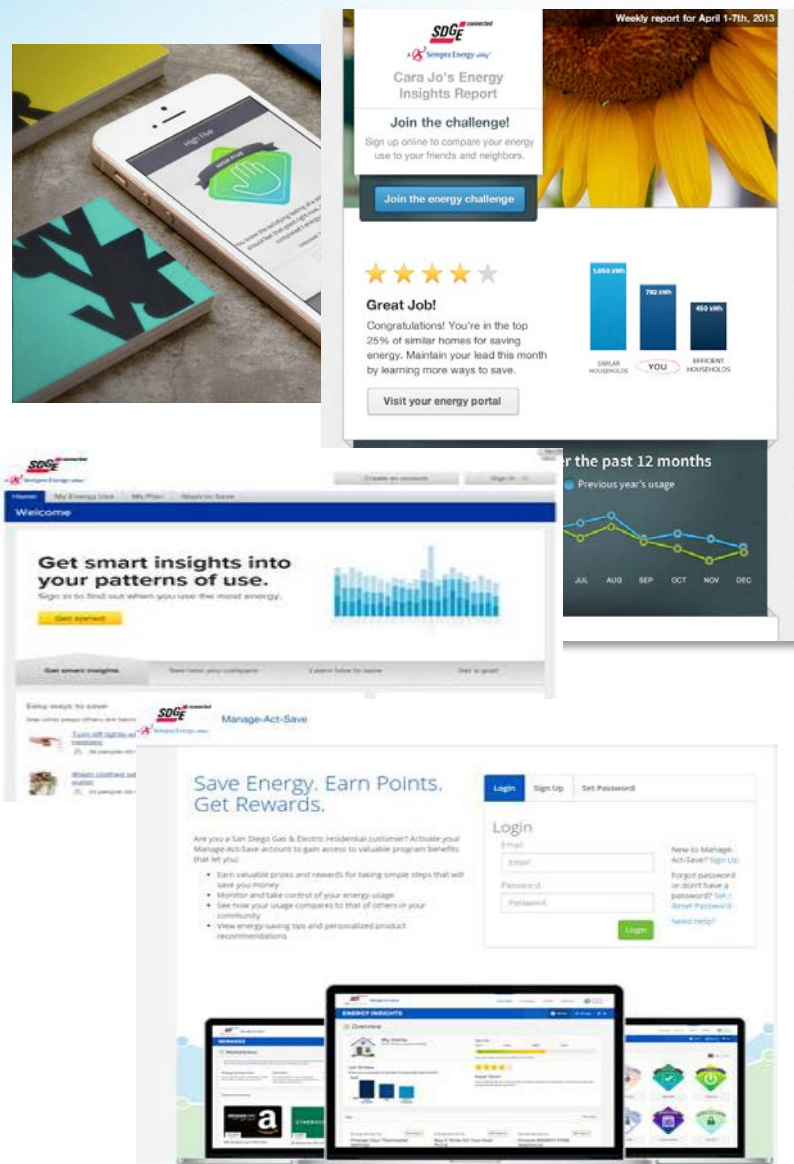
IDSM Program Name	DRP Budget	EE Budget	Total IDSM Budget
SW-COM-Customer Services- Audits NonRes (TA)	\$ 1,676,435	\$ 1,898,261	\$ 3,574,697
SW-IND-Customer Services- Audits NonRes (TA)	\$ 250,083	\$ 240,589	\$ 490,672
SW-AG-Customer Services- Audits (TA)	\$ 217,172	\$ 106,599	\$ 323,771
Local-IDSM-ME&O-Local Marketing (DR)	\$ 905,793	\$ 957,255	\$ 1,863,048
Local-IDSM-ME&O-Behavioral Programs (DR)	\$ 401,502	\$ 1,343,280	\$ 1,744,782
SW-CALS-Energy Advisor-HEES (DR)	\$ -	\$ 470,967	\$ 470,967
Local IDSM Small Commercial Behavior Pilot DRP	\$ 1,189,263	\$ -	\$ 1,189,263
SW-IDSM-IDSM	\$ -	\$ 209,805	\$ 209,805
2015 Total	\$ 4,640,247	\$ 5,226,757	\$ 9,867,004

Exemplary IDSM Programs and Customer Projects



Engaging Customers with Data Analytics: Customer IDSM Behavior Programs:

- Through partnering with several data analytics & energy management companies, SDG&E makes Smart Meter Data accessible to its residential customers that would enable them to use energy more efficiently:
 - ✓ Customized easy-to-understand information on their energy use
 - ✓ Personalized on how to save energy and earn rewards
 - ✓ Recommendations for EE products, DR programs, rate options and services that may be of value to them to encourage them to take action,
- Current participation:
 - ✓ ~500,000 customers currently enrolled
 - ✓ ~60,000 engaged with the online tools

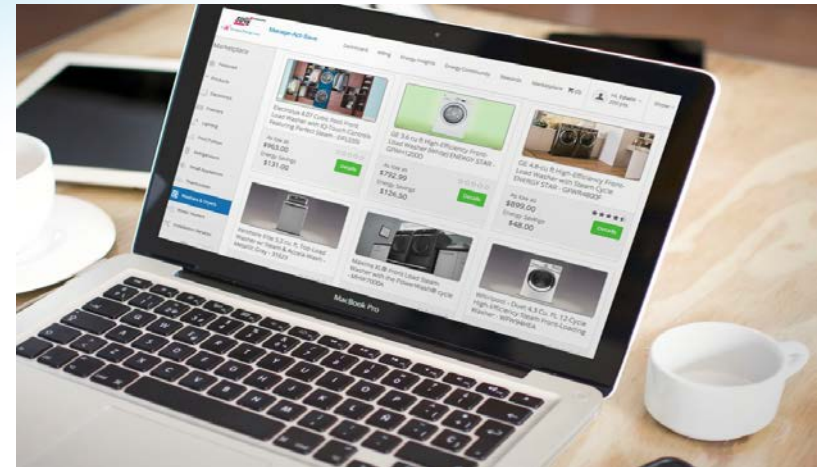


Bringing our Customers and Service Providers Together: Energy Marketplace

An integrated virtual market that connects customers with products and services offered by EE, DR and other DSM service providers.

Benefits

- Meets customer specific needs:
 - ✓ Increases customer energy awareness, education and empowerment to take action
 - ✓ Helps customers save money;
 - ✓ Connects customers directly with EE and DR products and other energy service suppliers;
 - ✓ Enhances customer engagement
- Enables IDSM Market Participation
 - ✓ Lowers market entry/customer acquisition costs,
 - ✓ Encourages innovation for providers
 - ✓ Encourages competition and potential downward competitive pressure on prices
 - ✓ Enhances customer engagement
- Meets Commission Objective of Market Transformation
 - ✓ Facilitates adoption of EE and DR leading to faster market transformation

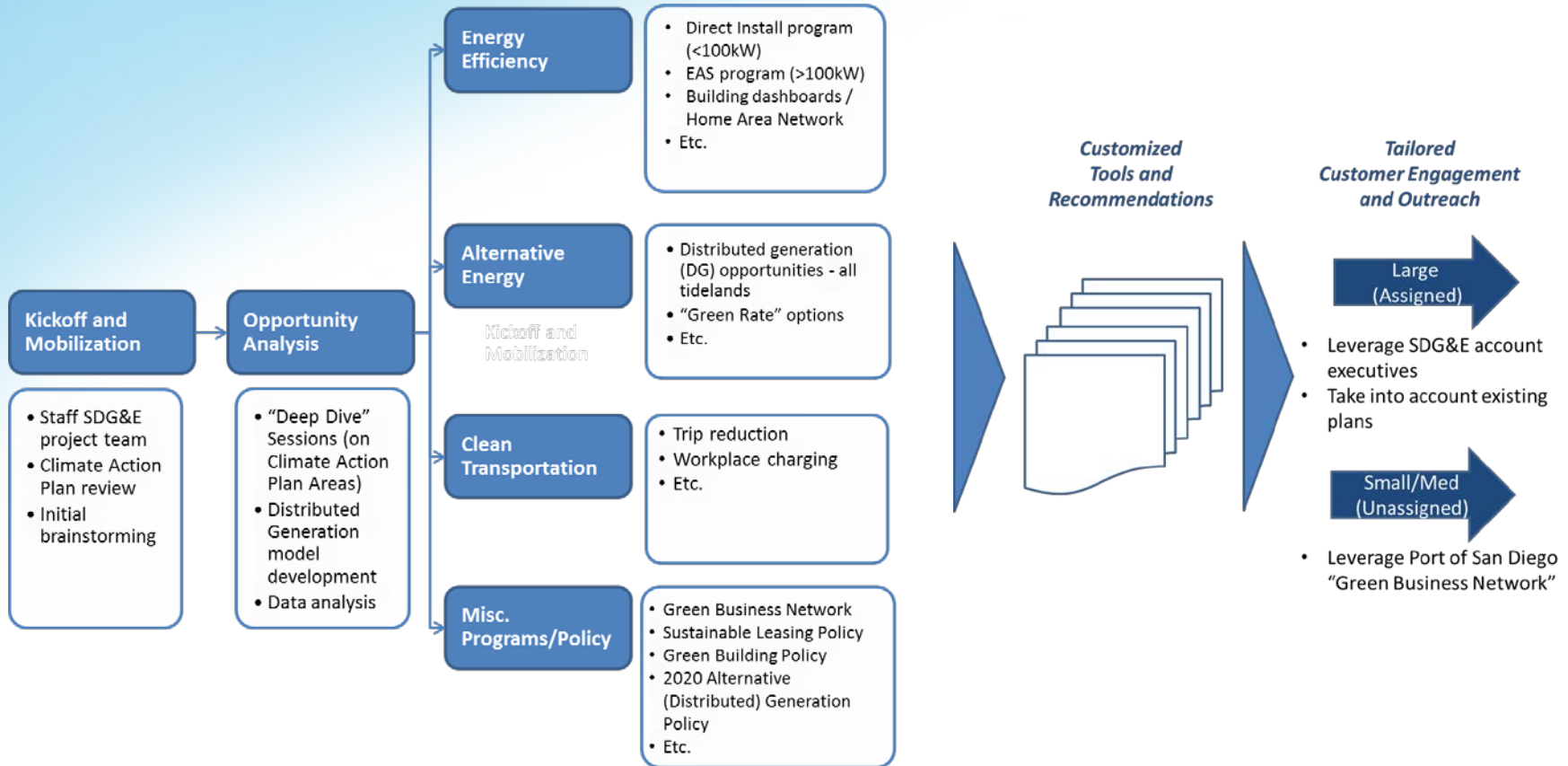


Planned Functionality

- Customized recommendations and savings tips
- Comparison shopping for best product price and energy savings potential
- Direct transactions between customer and service provider
- Access to rebates

Enabling IDSM for Local Government Agencies: Port of San Diego Partnership

- SDG&E is engaged from the beginning of the project with the Port of San Diego to help achieve their Climate Action Plan GHG reduction targets, through a comprehensive analysis of their needs and DSM opportunities resulting in an IDSM solution.



Providing Customer Sustainability and Reliability: SDG&E's "Community Microgrid Project"

- Leveraging SDG&E's unique understanding of its electric system needs together with understanding the customer needs and future needs resulted in a community microgrid development.
 - A 230 acre, master planned, sustainable community in Mission Valley that includes apartments, townhomes, detached homes, public parks, a school, retail, office space
- Project Goals: To demonstrate a campus-level microgrid at a customer's site through the integration of DER, load control, and other smart grid elements in a system that functions in parallel to and independent of the utility grid, enhancing reliability at this particular site.
- Microgrid Description/Overview:
 - SDG&E will use local DER to create a microgrid, providing energy to a portion of the apartment building in the event of a grid outage.
 - During normal grid operation, the local energy sources will provide benefits to SDG&E by producing electricity for the grid and, eventually, increased power quality
 - 88 kW solar PV
 - 100kW/200kWh battery energy storage
 - Educational display



Achieving Net Zero Building—Architects Hanna Gabriel

- Bringing its understanding of its system needs, customer's needs and contributing to CA's ZNE goals, SDG&E worked with Architects Hanna Gabriel to develop the First Net Zero Office Building In San Diego.
 - LEED Gold Certified
 - Energy Efficiency Incentives: 48.1% better than 2005 T-24
 - Building reuse – 1955 auto repair shop
 - SDG&E Owned 16 KW PV system offsetting 104% of building requirement; Solar thermal water heating



Leveraging Prop 39 with IDSM: High Tech High Chula Vista

- SDG&E worked with High Tech High through its integrated audit to identify EE opportunities & available rebates, and other DG potential to leverage their Prop 39 funding
 - LEED for Schools – Gold Certified
 - Energy Efficiency: 37% better than 2005 T-24;
 - Energy management system monitors optimal operating levels for mechanical and electrical systems opportunity to participate in DR
 - SDG&E-owned 101 kW rooftop PV system offsets ~64% building's electricity usage



SDG&E Leads By Example

- Retro fit at SDG&E Headquarters, Century Park
 - PV systems
 - Installation of electric vehicle charging stations
 - Food composting out of the cafeteria
 - Shareholder investment in incentives for employees to purchase electric vehicles
- Energy Innovation Center—LEED Double Platinum Certified
 - Installation of solar trees
 - Installation of electric vehicle charging stations
 - Sample of a variety of sustainability techniques and materials.; and landscaping
- Water Sustainability Efforts
 - 4 million gallons of water a year
 - Demonstrate to the community variety of drought tolerant landscaping

Successful Expansion of IDSM Requires Addressing These Barriers:

- Lack of a common objective with common metric, e.g., AB 32 measured by GHG metric while allowing for specific program metrics as necessary
 - Lack of an IDSM Cost Effectiveness and EM&V methodology, e.g., impacts of Net Zero Energy for IDSM
- Lack of coordination for DSM proceedings: timing, program funding availability, policy rules need to be compatible, leveraging of various program financial incentives,
- Lack of comprehensive Financing (currently financing pilots focused on EE with secondary focus on non-EE measures)
- Lack of rate design options that enable all customers to make economically efficient decisions to use energy and/or invest in energy efficient upgrades, alternative fueled vehicles and distributed generation based on accurate price signals.

Appendix

future expansions, other energy services



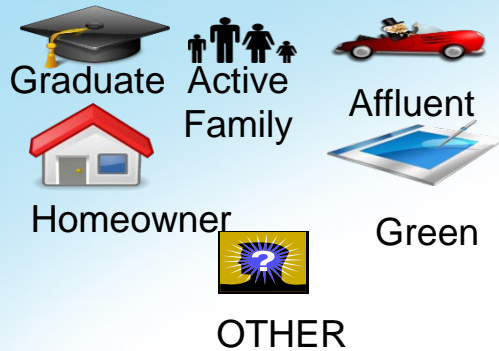
Right Information for the Right Customer

Which customer segment?

What is driving the offer?

What type of offer?

Residential



Commercial



- Importance of lowering energy costs
- Importance of the environment
- Interest in energy management tools
- Communication preferences

Residential

Energy Management

- EE/DR programs
- Income-qualified upgrades

Rates

- EVs
- Smart Pricing

Bill

- Assistance/Options
- Discount programs
 - Payment options

Online Tools

- My Account
- Green Button
- Goals and Alerts

Services

- In-Home Service
- Safety information
- Interconnection

Commercial

Energy Management

- EE/DR programs
- IDSM audits

Online Tools

- My Account
- Business Energy survey
- Green Button
- Energy waves

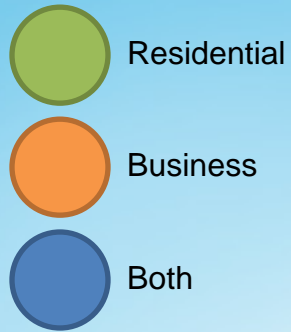
Rates

- Smart Pricing
- Critical Peak Pricing

Billing Options

- Level Pay
- Payment₁₇ arrangements

The Right Channel for the Right Customer



Other IDSM Customer Solution Projects

- More details of other IDSM Customer Solution projects are available at
 - <http://www.sdge.com/business/energy-showcase-2013-winners>
 - <http://www.sdge.com/business/energy-showcase-2014-winners>