Statewide Energy Efficiency Forum

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- Largest natural gas distribution utility in US
- Service territory of 20,000 square miles
- Serving 20.9 million consumers through 5.8 million meters in more than 500 communities
- Workforce of 8,500 employees
Aging/Centralized electric grid transforming – Becoming modern and distributed “energy” grid while we are de-carbonizing energy supply

Figure “Building the Plug & Play Grid”, More Than Smart, March 2016
Grid Complexity Requires....

- Modern technology to adapt to consumer preferences
- Flexible and dynamic infrastructure
- Adjusted customer behaviors
- Market incentives balanced with environmental policy
- Predictable and balanced public policy
Federal/State Policy Strongly Support CHP

-- CARB CHP Target from AB 32 - 4,000 MW new CHP by 2020

-- 2008 Scoping Plan and Draft 2014 Scoping Plan Update
   6.7 MMT CO$_2$e CARB AB 32 Scoping Plan CHP Target

-- Governor Brown’s Jobs Plan - 6,500 MW of new CHP by 2030

-- Southern California Reliability – CHP preferred resource for SONGS and once thru cooling


-- Obama’s Executive Order 13624 – 40 GW new CHP by 2020

-- CPUC Settlement Agreements (2010) – SCE, PG&E, SDG&E must procure a min. of 3,000 MW until 2015
Combined Heat and Power

- Distributed Technology / Customer Site
- Create electricity with waste for thermal application (cooling)
- Different than Waste Heat and Power
- Currently used in US for Industrial/Commercial customers
- Micro CHP market growing fast – 75% of market in Asia
- Important part of balancing energy grid
CHP Benefits – Part of the overall solution

• Environmental:
  – Reduced GHG and polluting emissions
  – Reduced environmental footprint
  – Reduced peak demand

• Customer
  – Reduced customer energy costs
  – Local control of resource
  – Need rate structure to accommodate and protect “departing load” for electric utilities

• Efficiency:
  – High overall utilization efficiencies
  – Reduced operating costs
  – Local use – Limited transmission/distribution costs

• Proven technologies commercially available that cover full range of sizes and applications
Distributed Energy Resources (DER) Proposed Tariff

» DER Tariff - filed with the California Public Utilities Commission on 08/08/14

» Utility design, install, own, operate, and maintain distributed energy assets on or adjacent to customer premises. **Optional tariff.**
  - Flexible financing
  - Customer responsible for natural gas and electricity commodities
  - Primary CHP targeted customer segment = base load of 1 to 20 MW

» Applications:
  - Combined Heat and Power (CHP)
  - Waste Heat to Power
  - Mechanical Drives
  - Fuel Cells

» Pricing: Customer pays a monthly market-based service fee
  - SoCalGas ratepayers bear no risk under the tariff

» Term: The DER contract term is negotiable and is expected to range from 10 to 20 years
Biogas

- Renewable Natural Gas/Biogas will help lower the greenhouse gas profile of all natural gas uses
  - Agricultural waste
  - Wastewater treatment facilities
  - Landfills

- Offering Biogas Conditioning Services Tariff to facilitate development of renewable natural gas market by providing a means to clean biogas so it can be injected into our pipelines
SoCalGas Biogas Conditioning/Upgrading Services (BCS) Tariff

- BCS Tariff - allows SoCalGas to design, install, own, operate & maintain biogas conditioning/upgrading equipment on or adjacent to the customers premises
  - SoCalGas will not own the biogas – Just the equipment
  - Customer must pay for all costs associated with the interconnection facilities
  - Optional tariff – Competitively neutral

- Pricing - BCS Tariff rate charged to customer covers both CapEx and O&M
  - Ratepayers bear no risk under the BCS Tariff

- Term: BCS contract term is negotiable and is expected to range from 10 to 15 years
Review / Utility Role
Distributed Resources

- Complicated energy grid of the future
- Necessary to have “all of the above” strategy
  - Technology and fuel
- Reliability and affordability as important as Environmental
- NG technologies like CHP and Tariffs can help
- Municipal application must use all tools available
QUESTIONS/COMMENTS