

Southwest Gas Corporation

**Proposed Demand Side Management
Programs for Arizona
2006**

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Who is Southwest Gas?

- One of the fastest growing natural gas distribution companies in the country
- Headquartered in Las Vegas
- Service territory includes parts of Arizona, California, and Nevada
- Serve over 1.7 million customers
- **Nearly 940,000 customers in Arizona**

Definition

Demand-side management (DSM) programs consist of the planning, implementing, and monitoring activities of utilities that are designed to encourage consumers to modify their level and pattern of energy usage.

Source: Energy Information Administration

Proposed DSM Programs

- Arizona Corporation Commission (ACC) approved Southwest's request to spend **\$4.385 million** annually for DSM programs
- SWG hosted a series of collaborative workshops to discuss and review proposed DSM programs
- Program plans filed June 26, 2006
- Awaiting approval from ACC

Proposed DSM Budget

- **\$4.385 million** represents approximately:
 - **1.2%** of margin
 - **0.5%** of total revenue
- **Based on rate case test year:**
 - **Bills and volumes**
 - **Currently effective gas cost**

Proposed Residential Programs

- **Low-Income Energy Conservation (LIEC)**
- **ENERGY STAR® Home**
- **Multi-Family New Construction**
- **Consumer Products**

Proposed Non-Residential Programs

- **Commercial Equipment**
- **Distributed Generation**
- **Technology Information Center**

Low-Income Energy Conservation (LIEC)

Proposed Budget: \$500,000/year

Estimated Participants: 300 households/year

- **Goal:** Improve the energy efficiency of low-income dwellings
- Ongoing for qualified low-income customers
- Money-saving home improvements that reduce energy use
 - Caulking, insulation, weatherstripping, ductwork repairs, set-back thermostats, windows, shade screens, HVAC replacements, etc.

LIEC

Continued

- **Budget includes \$50,000 for bill assistance**
 - **Reverts to weatherization if unused**
- **Administered by Arizona Energy Office**
 - **Local community agencies perform services**

ENERGY STAR® Home Certification

Proposed Budget: \$450,000/year

Estimated Participants: 4,000-5,000 homes/year

- **Goal:** Increase the number of newly constructed energy efficient homes
- **Services to homebuilders**
 - **Plan review**
 - **Inspections and testing**
 - **Training and educational seminars**
- **No direct incentives proposed**
- **Available throughout Southwest's Arizona service areas**

Multifamily New Construction

Proposed Budget: \$1.2 million/year

Estimated Participants: 2,000 units/year

- **Goal:** Increase the energy efficiency of multifamily dwellings
- **Apartment & condominium renters & owners**
 - **An underserved population; often lower-income**
- **ENERGY STAR guidelines**
 - **Exceed existing codes**
 - **Duct sealing**
 - **Programmable thermostats**
 - **Compact fluorescent lighting**
 - **High efficiency water heaters**

Multifamily New Construction

Continued

- **Partner with low-income housing agencies**
- **Education**
 - **Consumers, builders, designers**

Consumer Products

Proposed Budget: \$800,000/year

Estimated Participants: 5,950 measures/year

- **Goal:** Increase awareness and purchase of more efficient appliances and equipment
- Partner with home improvement stores, appliance manufacturers, and retailers
 - **Education, instruction**
 - **Point-of-purchase displays**
 - **Rebates**
 - On purchases of selected energy-efficient products and materials
 - Clothes washers and dryers, water heaters, thermostats

Proposed Non-Residential Programs

- **Commercial Equipment**
- **Distributed Generation**
- **Technology Information Center**

Commercial Equipment

Proposed Budget: \$1 million/year

Estimated Participants: Varies depending on measure

- **Goal:** Increase utilization of high efficiency equipment in commercial applications
- **Equipment**
 - **Spray rinse valves – 5,000 (Year 1)**
 - Partnership with Arizona Dept. of Water Resources and Bureau of Reclamation
 - Higher efficiency becomes mandatory in 2008
 - Continuation may be considered beyond 2008

Commercial Equipment

Continued

- **Equipment – continued**
 - **Water heaters – 111 to 140 units/year**
 - **Griddles – 65 to 79 units/year**
 - **Steamers – 101 to 121 units/year**
 - **Fryers – 101 to 121 units/year**
- **Rebates**
- **Education**
 - **SWG Food Service Center**
 - **Trade shows**
 - **Workshops**

Distributed Generation

Proposed Budget: \$400,000/year

Estimated Participants: One to four installations/year

- **Goal:** Increase the number of major distributed generation projects
- Small to large industrial customers and medium to large commercial customers
 - **Higher efficiency**
 - Reduced emissions
 - Water savings
 - **Cost savings**
 - **Peak shaving**
 - **Power reliability**
 - **Risk management**

Distributed Generation

Continued

- **Education**

- **Technology Information Center**
- **Mailings**
- **Seminars and workshops**

- **Incentives**

- **Partnerships where feasible**

Technology Information Center

Proposed Budget: \$35,000/year

Estimated Participants: 200-300/year

- **Goal:** Increase commercial and industrial customers' awareness and understanding of energy issues and high efficiency technologies
- **Technical information**
 - **Energy-efficient technologies**
 - **Reducing energy usage**
 - **Lowering utility bills**
 - **Increasing awareness of environmental issues**
 - **Distributed generation**

Technology Information Center

Continued

- **Media formats**
 - **Electronic or faxed newsletter**
 - **Internet resource Website**
 - **“Ask an Expert” hotline**
 - **Electronic research library**
- **Track customer interest**
 - **Future topics and programs**

Estimated Program Energy Savings

2007-2009

Program	KWH kilowatt-hours	KW kilowatts	Therms
LIEC	18,451,048	450	600,210
E* Home	1,119,125,040	9,768	27,165,600
Multi-family	334,839,966	5,940	(3,859,200)
Cons. Prods	265,199,006	21,960	569,250
CommEquip	121,160,230	4,015	15,735,690
Dist. Gen.	336,186,900	2,100	22,063,200
TechInfoCtr	n/a	n/a	n/a
TOTAL	2,194,962,190	44,233	62,274,750

Summary of Estimated Savings and Environmental Benefits

kilowatt-hours	= 2.2 billion
kilowatts	= 42,200
Therms	= 62.2 million
Carbon dioxide	= 2.1 billion pounds
Nitrous oxides	= 400,000 pounds
Sulfur dioxide	= 10,000 pounds
Water	= 2.7 billion gallons

Note: Figures are approximate

Costs/Benefits

- **DSM costs recovered via a demand side management adjuster mechanism**
 - **Applies to all full-margin customers**
- **Weighted program cost-benefit ratio is 4.52**
 - **For every dollar invested in DSM, Arizona customers will realize \$4.52 in total benefits**
 - **Environmental and societal benefits add even more value**

Questions?