



**SOUTHWEST GAS CORPORATION**

# **Southern Arizona Update**

*March 2, 2011*

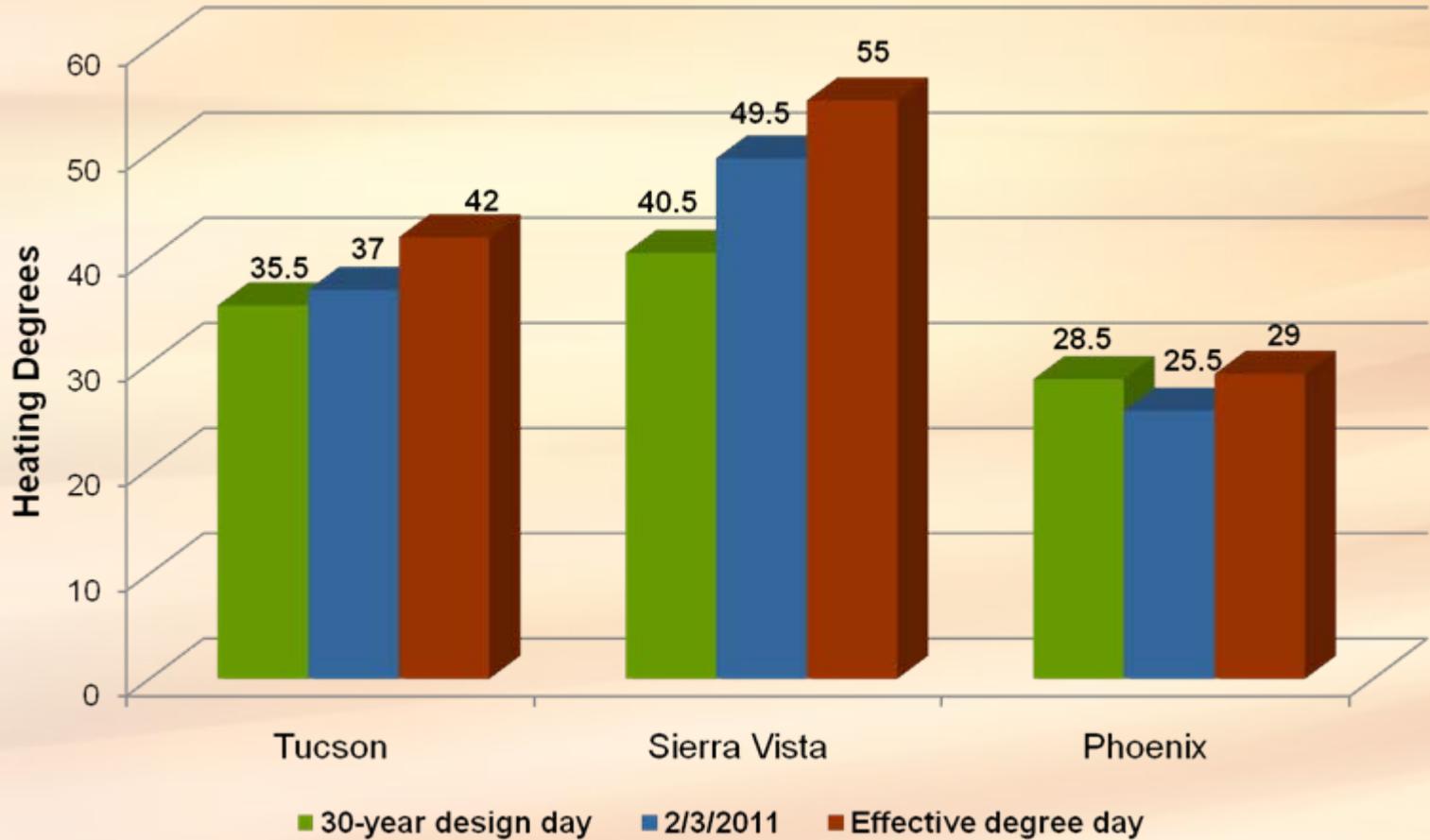
# Causes of the Outages

- Extreme cold weather from Arizona thru Texas
- Well freeze-offs, gas processing plant shutdowns, and supply basin underperformance
- Peak gas demand by customers in Texas, New Mexico, and Arizona
- Pipeline demands exceeded available supplies
- Impaired pipeline operating pressures

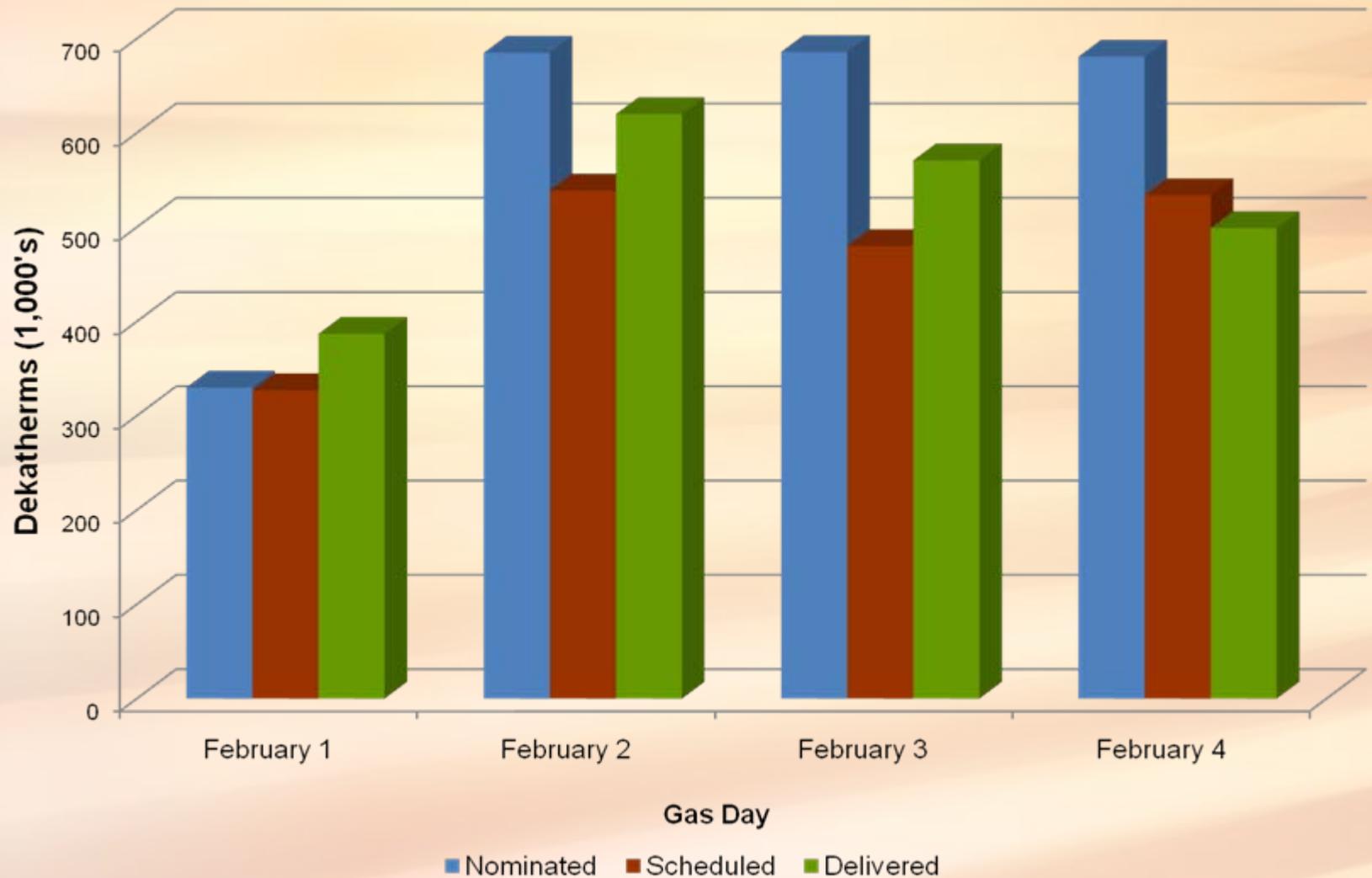
# Gas and Electricity Losses

- Production lost (compared to 10 day average)
  - 5.6 bcf nationally (approximately 10% of total)
  - 1.0 bcf in the three basins pertinent to Arizona
- Rockies and basins across Texas and into Louisiana lost remainder
- More than 50 Texas power plants offline
- Gas burn for electric generation 4% above prior year peak in Texas

# Arizona Heating Degree Days



# Southwest Gas Pipeline Supplies



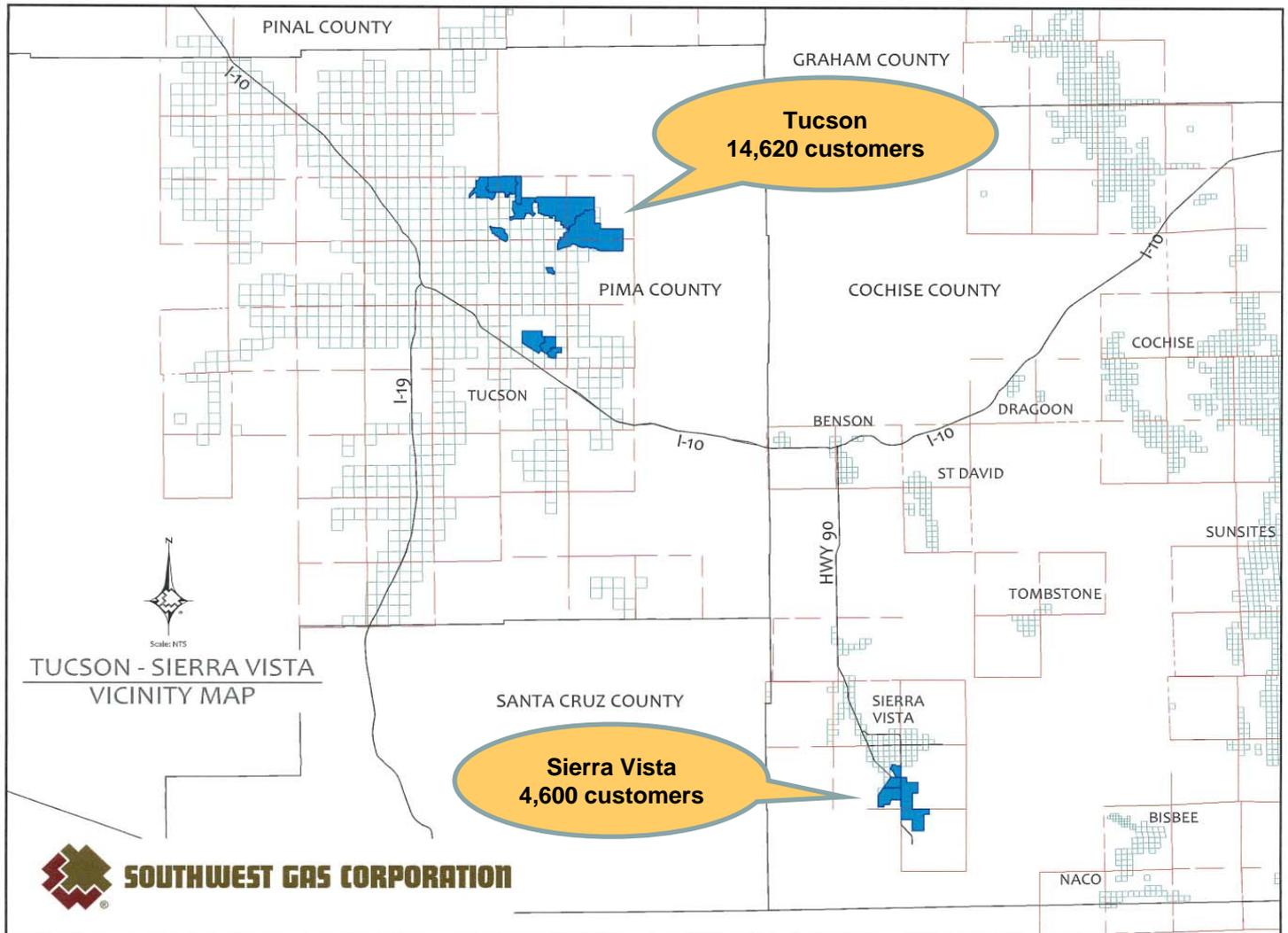
# Advanced Warning

- Weather forecast for Arizona cities
- 24 hour monitoring of gas system
  - Interstate pipeline
  - Local distribution system
- Routine pipeline communications 2/2/2011
  - SOC warning 7:24 am MST
  - COC emergency 11:52 am MST
- None of these meant outages were certain

# Emergency Plan

- SWG Emergency Plan Manual
  - Actions for low pressure situation
  - Curtailment plan
  - Isolation plans
  - Service restoration
- So. AZ Division Winter Operations Guide
  - Dictates Division preparation

# February 3 Customer Outages



# Customer Service Restoration

- 2/3/2011 outage reports to ACC
  - 6:57 am Sierra Vista
  - 7:47 am Tucson
- Service crews from Central Arizona, Southern Nevada, and Southern California
- Restoration effort began as supply operating pressures increased
- Once restoration efforts began, first service restoration attempt completed within 2.5 days

# Customer Communication

- Issued news releases on February 3<sup>rd</sup>
- Initiated or responded to 376 media contacts
- Multiple daily website updates throughout the course of the outage
- Expanded call center hours including weekend operation
- Pima County Office of Emergency Management
  - Supported three news conferences
  - Supported Emergency Operation Center
- Need to expand traditional efforts to meet customer expectations

# Moving Forward

- Debrief and collect data with El Paso
- Put record Feb 3<sup>rd</sup> weather event through ongoing physical gas and capacity planning process
  - Long-range forecast
  - Capacity commitments
  - Infrastructure improvements

# Storage in Arizona

- Arizona Storage Coalition formed in 2007
  - Evaluating storage offerings
- Generally in the Picacho Basin
- Political issues
  - Brine injection and the ADEQ
  - Municipalities object to above ground mined salt storage
- In general, will improve reliability
- Specific configuration and location matter

