Southern California Gas Company

A Sempra Energy utility®

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# PROJECT OVERVIEW

**City of Glendale**

10/1/12

# What is the Advanced Meter Project?

- California Public Utilities Commission (CPUC) decision received in April 2010 authorizing $1.05 billion to upgrade approximately 6 million existing natural gas meters with a communication device by 2017
- Automatically reads and securely transmits hourly gas usage information on a “next day” basis
- Provides more frequent and detailed information to help customers better control energy use and costs
- SoCalGas employees will perform installations

*PHOTOS FOR DISCUSSION PURPOSES ONLY*

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# What are the Benefits?

**Get Information**

**Save Money**

**Help the Environment**

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# How Does it Work?

***Gas usage is still recorded in the traditional way, it's a communication device that transmits the information electronically***


- Does not change the functionality of the gas meter; No remote connect / disconnect capabilities
- Device is **off** most of the time
- Securely transmits 12 hours of data 4 times per day to a Data Collector Unit (total "on" time is less than 2 minutes per year)
- **Battery-powered**
- Does not communicate with other meters
- Does not communicate with appliances in the home

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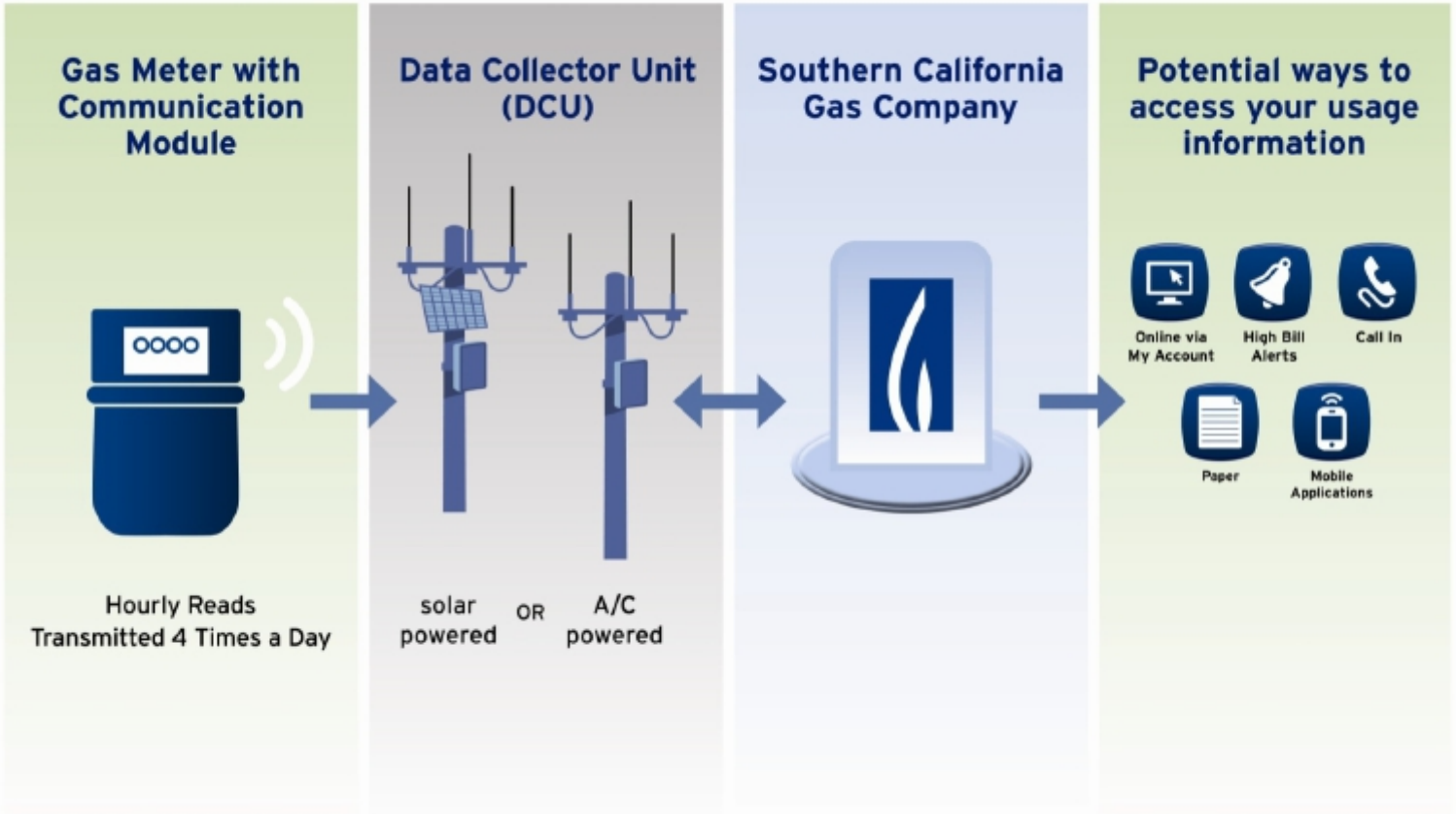
# How is the information transmitted?



# High Level Timeline

Milestone  Planning  Implementation

## Network Installation

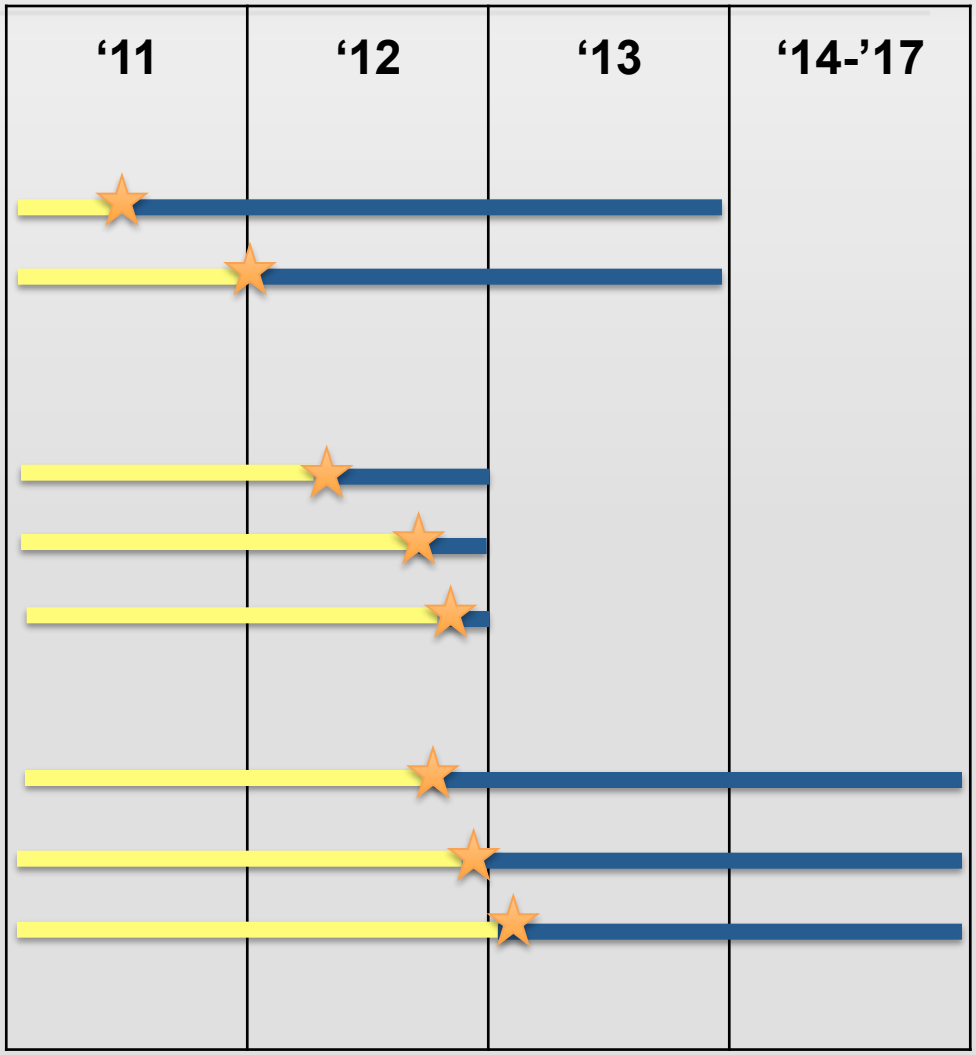
- Outreach and Briefings (Begin May ‘11)
- Install Communication Network (Begin Q1 ‘12)

## End-to-End Test (Early Module Installation)

- Community Outreach (Begin Q2 ‘12)
- Customer Notification (Begin Q3 ‘12)
- Early Installation (Begin Q4‘12)

## Mass Installation

- Community Outreach (Begins Q4 ‘13)
- Customer Notification (Begins Q1 ‘13)
- Mass Installation (Begins Q1 ’13)

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# About the Communication Network – Data Collection Units (DCUs)

***Sample installation***

- Installing approximately 4,000 DCUs throughout SoCalGas' service territory beginning early 2012
- Mostly pole mounted; pole height varies (30'-45')
- A/C or Solar Powered
- 25" H x 15.5" W x 9" D
- Total weight is 80 lbs
- Built-in Redundancy: advanced meters will communicate with two to three DCUs

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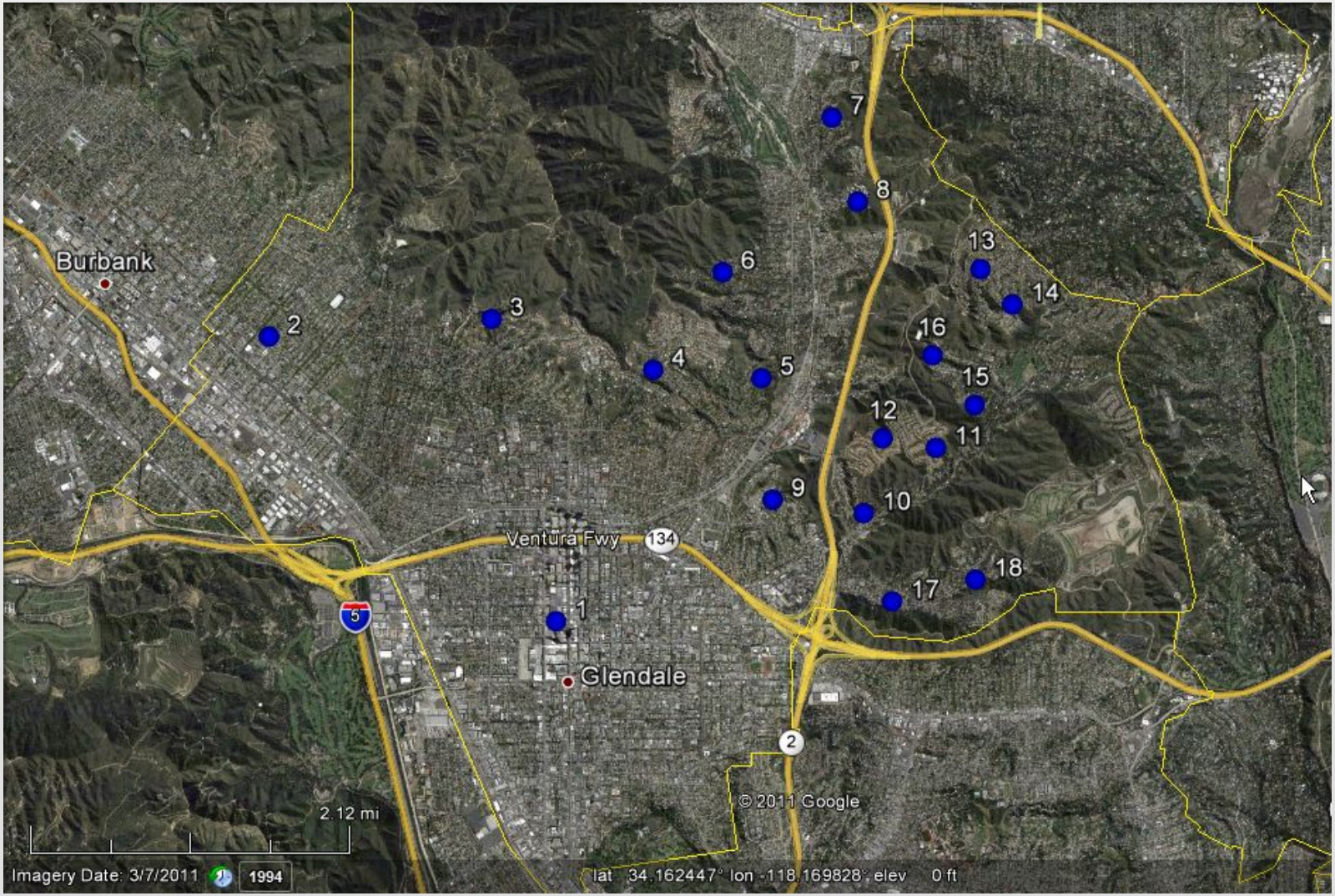
# Proposed 18 DCUs in Glendale



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# Proposed 18 DCU Locations in Glendale

**Location 1**

**Address: 213 N. Orange Street**

- **Lat:** 34° 8' 54.275" N
  34.14841000
  **Long:** 118° 15' 23.076" W
  -118.25641000

- **Cross Street**: Between Wilson & California




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# Proposed 18 DCU Locations in Glendale

**Location 2**

**Address: Between 1218 & 1220 Irving St.**

- **Lat:** 34° 10' 34.01" N **Long:** 118° 17' 22.00" W

Frontal View


Street View



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# Proposed 18 DCU Locations in Glendale

**Location 3**

**Address: Across 2050 Maginn Dr**

- **Lat:** 34.17735000 **Long:** -118.26273000



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# Proposed 18 DCU Locations in Glendale

**Location 4**

**Address: 1901 Greenbriar Rd.**

- **Lat:** 34.17272000 **Long:** -118.24729000




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# Proposed 18 DCU Locations in Glendale

**Location 5**

**Address: Across 1940 Las Flores Dr.**

- **Lat:** 34.17239722 **Long:** -118.23336388




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# Proposed 18 DCU Locations in Glendale

**Location 6**

**Address: 1361 Selvas Pl.**

- **Lat:** 34.18244722 **Long:** -118.23909166



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# Proposed 18 DCU Locations in Glendale

**Location 7**

**Address: Menlo Drive & El Tovar Drive**

- **Lat:** 34.19647000 **Long:** -118.22494000




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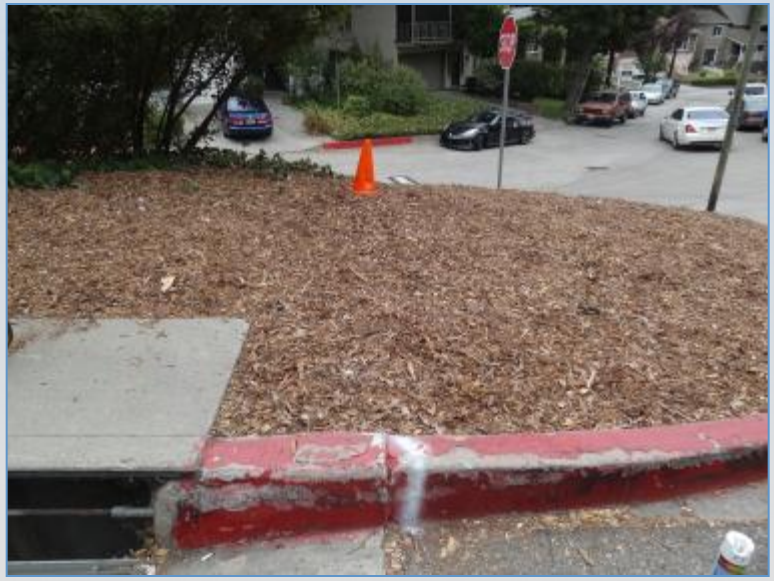
# Proposed 18 DCU Locations in Glendale

**Location 8**

**Address: 1908 Los Encinos**

- **Lat:** 34.18882000 **Long:** -118.22131000
- **Cross Street: Alpha Road**





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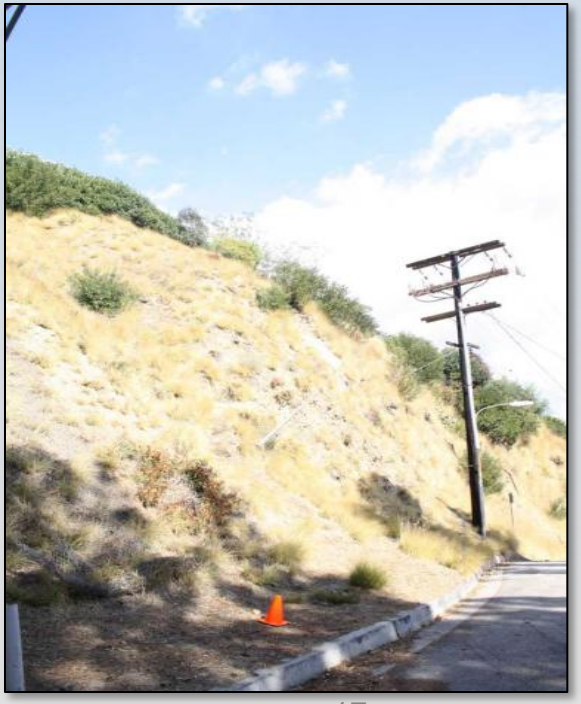
# Proposed 18 DCU Locations in Glendale

**Location 9**

**Address: 1727 Gladys Drive**

- **Lat:** 34° 9' 36.503" N — **Long:** 118° 13' 52.176" W
  34.16014000 -118.08261100
- **Cross Street**: Furman Place



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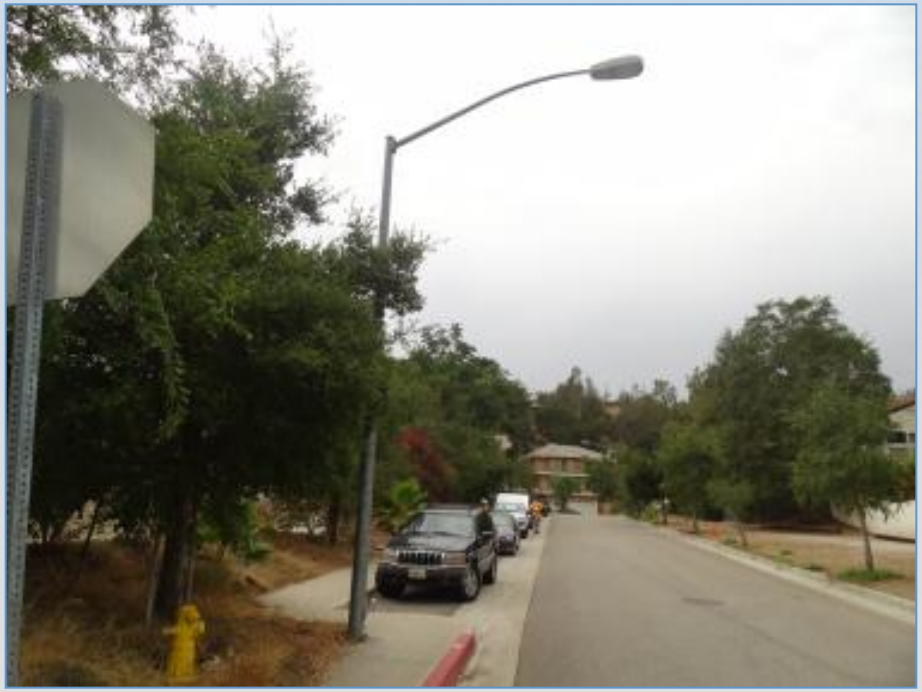
# Proposed 18DCU Locations in Glendale

**Location 10**

**Address:** 2169 Chevy Chase Dr. (on Acorn Pl.)

- **Lat:** 34.15808000 **Long:** -118.22028000





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# Proposed 18 DCU Locations in Glendale

**Location 11**

**Address:** 1951 Camino San Rafael (near Calle La Costa)

- **Lat:** 34.16745000 **Long:** -118.21334000



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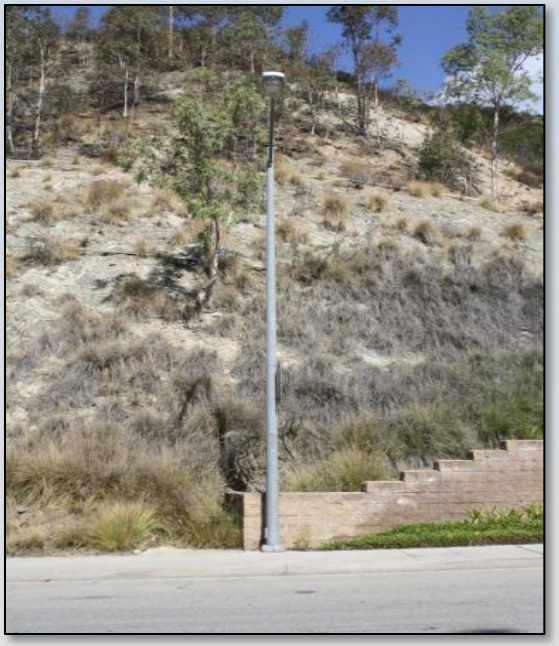
# Proposed 18 DCU Locations in Glendale

**Location 12**

**Address: 1883 Camino San Rafael**

- **Lat:** 34° 9' 57.527" N — **Long:** 118° 13' 6.203" W
  34.16598000 -118.21839000
- **Cross Street**: Btwn Calle Sonrisa & Calle Bella



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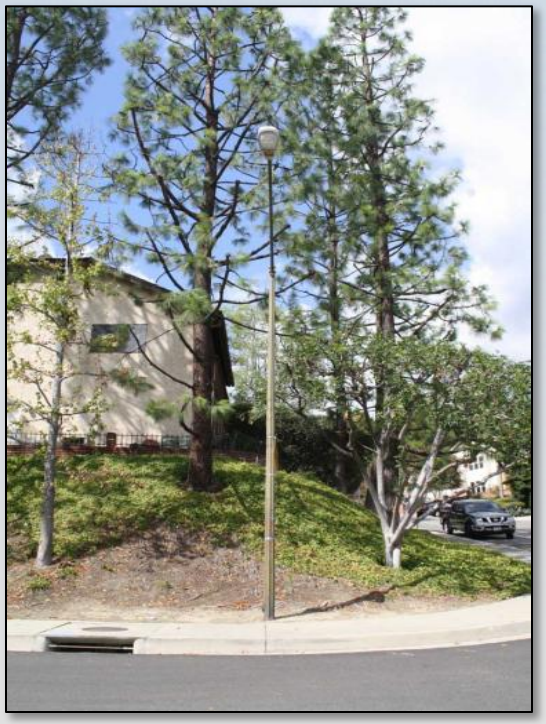
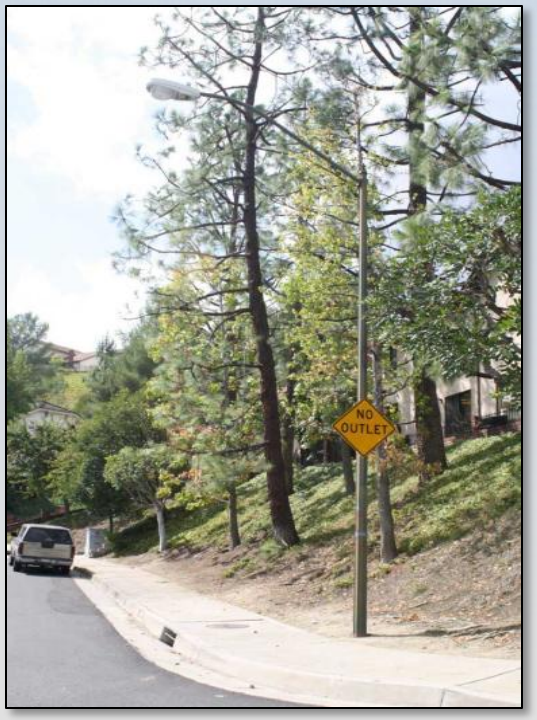
# Proposed 18 DCU Locations in Glendale

**Location 13**

**Address: Erin Way & Emerarld Isle Drive**

- **Lat:** 34° 10' 56.244" N
  34.18229000
  **Long:** 118° 12' 25.308" W
  -118.20703000





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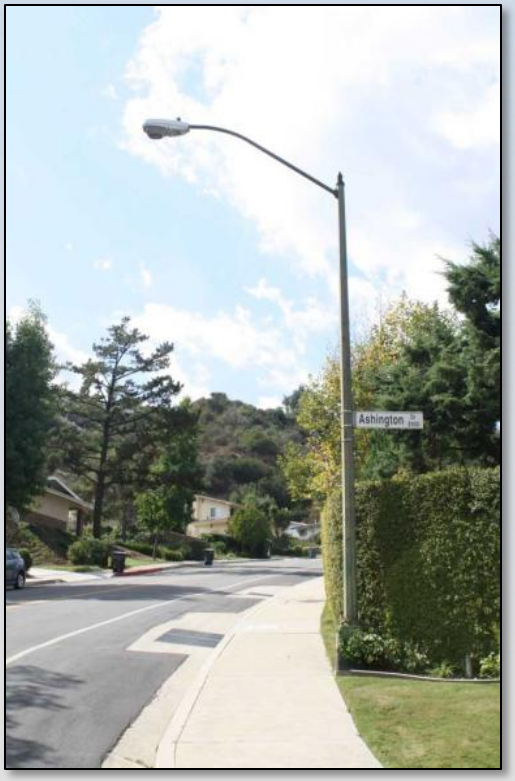
# Proposed 18 DCU Locations in Glendale

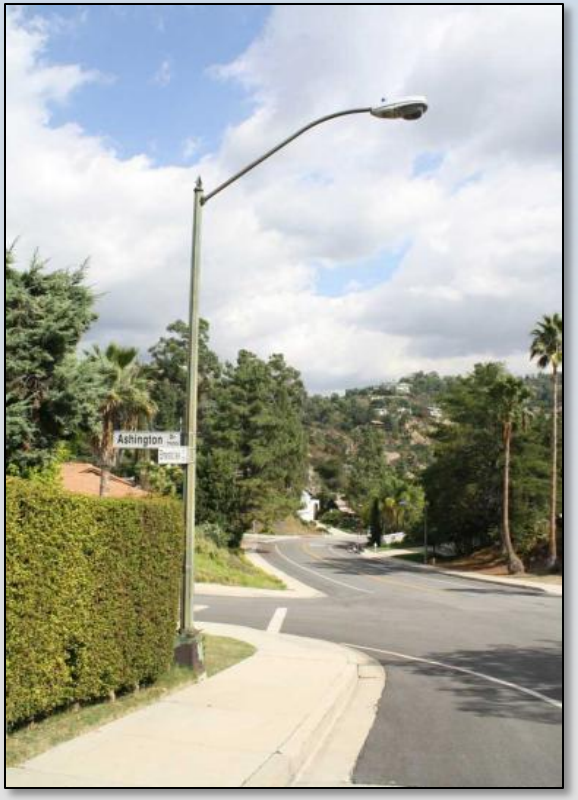
**Location 14**

**Address: Ashington Dr. & Emerald Isle Dr.**

- **Lat:** 34° 10' 44.112" N — **Long:** 118° 12' 11.915" W

  34.17892000 — -118.20331000







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# Proposed 18 DCU Locations in Glendale

**Location 15**

**Address: Across from 2957 Edgewick Dr.**

- **Lat:** 34° 10' 8.975" N
  34.16916000
  **Long:** 118° 12' 27.791" W
  -118.20772000



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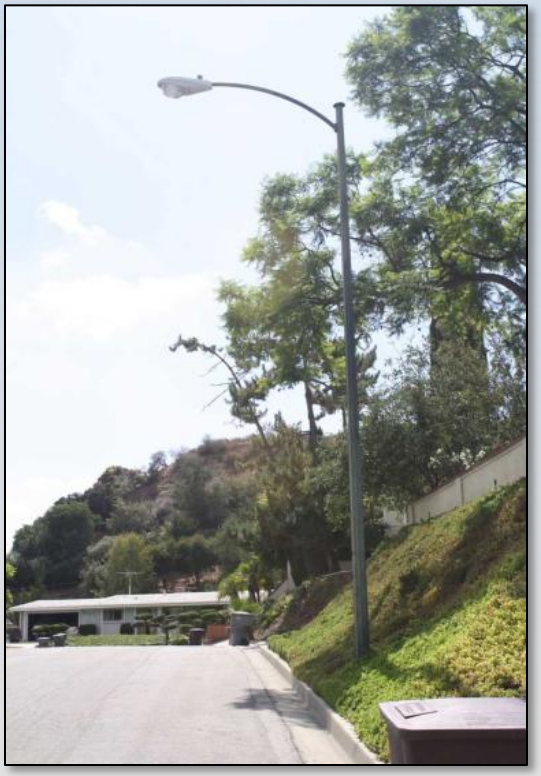
# Proposed 18 DCU Locations in Glendale

**Location 16**

**Address: 1495 Belleau Rd.**

- **Lat:** 34° 10' 24.564" N
  34.17349000
  **Long:** 118° 12' 45.468" W
  -118.21263000





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# Proposed 18 DCU Locations in Glendale

**Location 17**

**Address: 2226 E. GLENOAKS BLVD.**

- **Lat:** 34° 9' 1.08" N — **Long:** 118° 13' 2.243" W
  34.15030000 -118.21729000
- **Cross Street**: Between Scholl Dr. & Blackmore Dr.



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# Proposed 18 DCU Locations in Glendale

**Location 18**

**Address: 2629 E. Glenoaks Blvd.**

- **Lat:** 34° 9' 8.496" N — **Long:** 118° 12' 27.539" W
  34.15236000 — -118.20765000
- **Cross Street**: Between Gardner Pl. & Ashburton Pl.



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# Community Outreach Efforts

- **Phase 1: Network Construction Customer Notification**

  *SoCalGas will notify impacted customers of network construction activity*

- **Phase 2: Advanced Meter Installation Outreach**

  *SoCalGas will implement local community outreach and customer communication to prepare customers for advanced meter installation*



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# Phase 2: Local Communication & Community Outreach

**90 to 60 Days Prior to Installation:**

Briefings with Local Elected Officials, Community Leaders, Chambers, etc.

**60 to 30 Days Prior to Installation:**

Local Community Involvement & Events

**30 Days Prior to Installation:**

Customer receives notification letter

*(geographically distributed)*

**Installation Day:**

Customer receives door hanger confirming installation has occurred

**Post Installation:**

Obtain feedback on installation experience

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# Advanced Meter Radio Frequency

- Communication device is **battery-powered** and transmits a signal for **less than 2 minutes per year**
- RF energy emitted is considerably less than common, everyday-living items such as laptops, cell phones wireless routers and handheld radios
- Advanced meters will be located in the same place as the existing meter
- When transmitting, the exposure level is thousands of times lower than the general population exposure limits set by the Federal Communications Commission

**Radio Frequency Emission Comparison Chart**

| Natural gas advanced meter | Using a laptop computer with a wireless internet connection | Maximum exposure level operating a microwave oven (8 inches from the door) | Talking on a cellular phone* |
|---|---|---|---|
|  |  |  |  |
| Reference level | up to 5,000 times more | up to 500,000 times more | up to 1,000,000 times more |



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# Advanced Meter Radio Frequency
## Comparisons to Similar Wireless Technologies

| Source | Radio Frequency Output Compared to Maximum Output from an Advanced Meter |
|---|---|
| Bluetooth Headset | Up to 400 times more |
| Most Electric Smart Meters | Up to 500 times more |
| Cordless Phones | Up to 700 times more |
| Baby Monitors | Up to 2,400 times more |
| Laptop computer with a wireless internet connection | Up to 5,000 times more |
| Car or plane remote controllers | Up to 7,500 times more |
| Maximum exposure level operating a microwave oven (8 inches from the door) | Up to 500,000 times more |
| Talking on a cellular phone | Up to 1,000,000 times more |

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# Contact Information

- To learn more about the project, visit:

  socalgas.com/advanced

- For questions, please contact:
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