

Application of San Diego Gas & Electric Company  
(U-902-E) for Adoption of an Advanced Metering  
Infrastructure Deployment Scenario and Associated Cost  
Recovery and Rate Design.

Application 05-03-015

**CHAPTER 25**  
**Prepared Rebuttal Testimony**  
**Of**  
**PATRICK LEE**  
**SAN DIEGO GAS & ELECTRIC COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

**SEPTEMBER 7, 2006**

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**I. Introduction and Summary**

The purpose of my rebuttal testimony is to address several assertions made by the Utility Consumers’ Action Network (UCAN) in August 16, 2006 testimony. In summary, SDG&E’s AMI solution is sound, well thought out and will benefit the Electric Transmission and Distribution (T&D) system.

**II. UCAN has drawn inaccurate conclusions regarding the T&D benefits derived from SDG&E’s AMI solution**

It is clear from his testimony that UCAN witness William Marcus is unaware that SDG&E’s AMI proposal already includes outage detection, and considers both demand response impacts and future Smart Grid development and deployment. Specific examples of his basic lack of understanding follow. The page references are to Mr. Marcus prepared direct testimony.

**A. UCAN witness William Marcus states (on page 16) that “One of the reasons that PG&E showed higher benefits than SDG&E is that almost 9% of PG&E’s benefits came from improvements in electric outage detection and restoration.....SDG&E does not plan to build these capabilities into its AMI system.”**

Mr. Marcus is incorrect. SDG&E does plan to include outage detection in the AMI solution (as thoroughly discussed in Chapter 4 of SDG&E’s AMI testimony at PTL-3, Section 2 “Outage Management Benefits”). AMI will provide critical end point data which will allow SDG&E to verify which customers are out of service, and which customers have been restored, plus

1 other valuable data. SDG&E’s outage analysis and follow-up benefits are  
2 outlined in the AMI T&D work papers.

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4 **B. UCAN witness William Marcus states (on page 25) that**  
5 **“SDG&E should be required to analyze ‘smart grid’**  
6 **communication to improve outage restoration and provide**  
7 **more information on transmission and distribution**  
8 **operations.”**  
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10 SDG&E’s AMI proposal supports Smart Grid implementation by  
11 providing critical end point data. Although “Smart Grid” communications can  
12 provide other benefits, such benefits are not necessary for the deployment of  
13 AMI. SDG&E’s current proposal of AMI technologies does not preclude  
14 SDG&E from leveraging smart grid communications when such  
15 communication channels or systems become available. SDG&E will  
16 prudently and diligently conduct a business case analysis to determine  
17 whether portions of the AMI communications can use smart grid  
18 communications. Regardless of the communications delivery systems, AMI  
19 will provide end-point customer data to integrated electric transmission and  
20 distribution control centers.

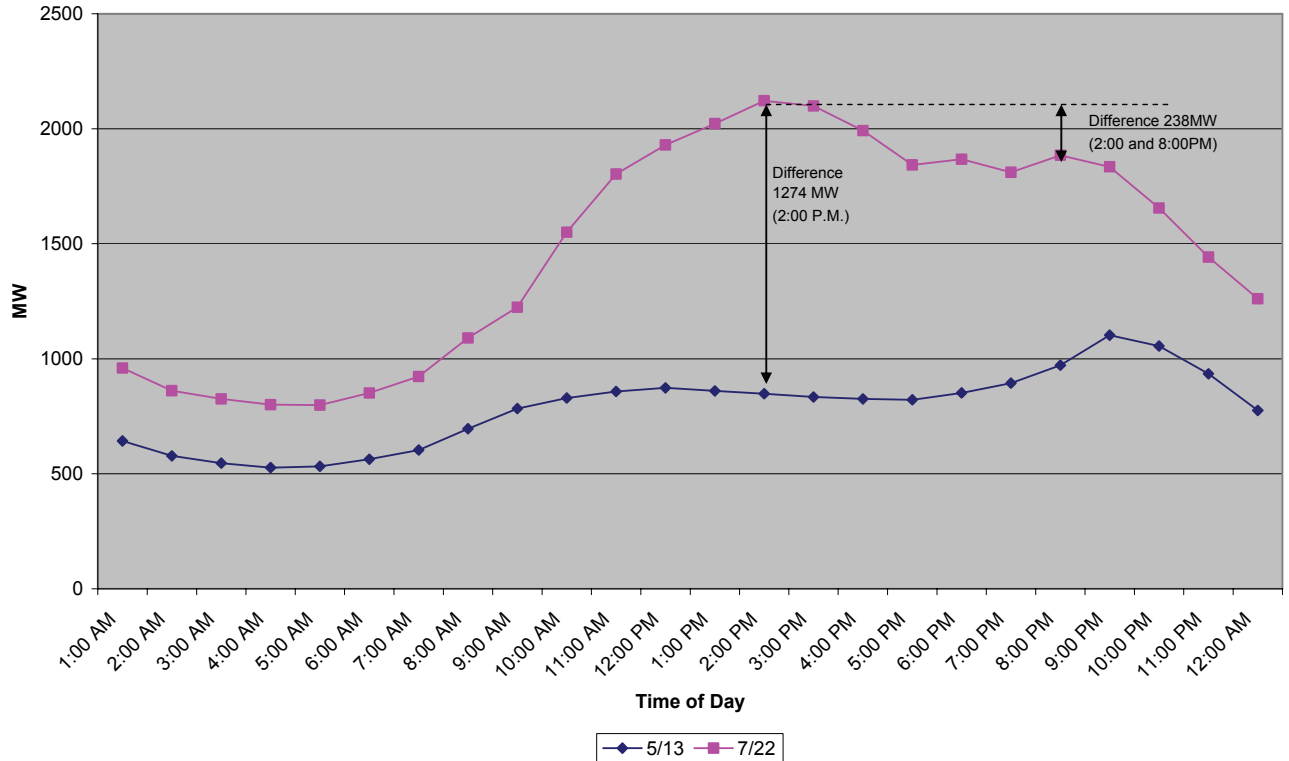
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22 **C. UCAN’s Witness William Marcus states (on page 104) that**  
23 **“residential requirements do not exhibit a peak in the middle**  
24 **of the day, as does the nonresidential class”.**  
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26 Although this statement is generally correct for mild weather days,  
27 SDG&E’s most recent system peak was primarily driven by residential AC  
28 load and occurred during the middle of the day. The high heat and humidity  
29 on Saturday, July 22<sup>nd</sup> drove the recent SDG&E system record peak demand  
30 to 4,502 MW at about 2:30 PM. This peak was 400+ MW greater than our  
31 previous week day peak and was primarily driven by residential air  
32 conditioning load. In comparing this July peak day with a typical day in May,  
33 SDG&E’s Dynamic Load Profiles for its residential class below showed that

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an increase in residential load of 1,274 MW at 2:30 PM can occur on peak day conditions.

**Residential Weather Sensitive Load  
Saturday: 5/13/2006 vs. 7/22/2006**



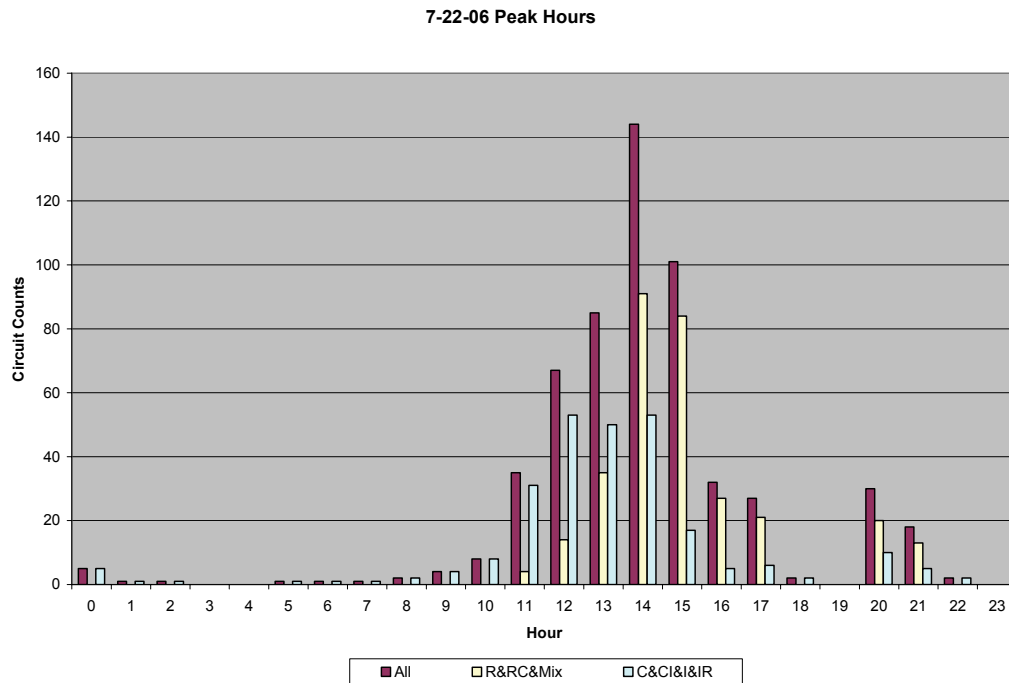
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**D. UCAN’s Witness William Marcus states (on page 107) that any peak load shifting as a result of CPP or PTR program could exaggerate the residential peak and aggravate loading on the distribution system**

SDG&E’s circuits and substations have a combination of both residential and non-residential customers spread across a mix of climate zones. As indicated in the chart below, most of SDG&E’s circuits, including a majority of residential circuits, peaked during the middle of the day under the severe weather conditions experienced on July 22<sup>nd</sup>, 2006 discussed above. SDG&E plans its distribution circuit capacity based on the projected peak demand from historical records and estimated load addition. The low number of

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circuits that peak before 11 am and after 7 pm are already factored into SDG&E's circuit capacity planning process. In addition, the magnitude of projected peak shifting outside of the system peak window is very small when spread across many distribution circuits. Therefore, peak load shifting will not require T&D additions.



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This concludes my prepared rebuttal testimony.