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MEMORANDUM

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Arizona Corporation Commission
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TO: THE COMMISSION

FROM: Utilities Division

DATE: November 12, 2008

RE: ARIZONA PUBLIC SERVICE COMPANY APPLICATION FOR APPROVAL OF MODIFICATIONS AND FINAL APPROVAL OF ITS NON-RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS (DOCKET NO. E-01345A-05-0477)

INTRODUCTION

On March 26, 2007, Arizona Public Service Company ("APS" or "the Company") made two similar but separate filings ("13-month filing") to fulfill obligations arising from earlier Commission Decisions relating to the Company's portfolio of Non-Residential and Residential demand-side management ("DSM") programs and activities. The Company was required to provide the Commission with specific information reflecting 12 months of actual experience with its DSM programs and to make its filing(s) within 13 months of Decision No. 68488 issued on February 23, 2006.

The non-residential component of the DSM 13-month filing was made in this docket to provide the Commission with additional information about the Company's Non-Residential DSM programs and to request final Commission approval for those programs as required by Decision No. 68488. In this filing, the Company also requested modifications to some of its Non-Residential DSM programs. This non-residential component of APS' 13-month filing is the subject of this item and is the final remaining component of the Company's 13-month filing requiring Commission action.

Earlier, the Commission acted on the other components of APS' 13-month filing. On August 28, 2007, the Commission rendered Decision No. 69879 in response to an APS application received on June 18, 2007, for expedited approval of certain time-sensitive initiatives contained in its 13-month filings. On December 4, 2007, the Commission rendered Decision No. 70033 in response to the residential components of the Company's 13-month filing.

DISCUSSION

Staff had recommended interim approval of the non-residential portion of APS' Portfolio Plan programs because of a lack of certainty and specificity in some areas of APS' Portfolio Plan application. In response to Staff discovery on many issues, APS indicated that it had provided all available detail to Staff. However, because the programs were new, there were still details that had not yet been established. APS' plan was to hire implementation contractors to establish remaining details regarding the Non-Residential DSM programs and to then have the same contractors implement the programs.

Staff believed that the benefits of moving forward with the Non-Residential programs at that time with a recommendation for interim approval outweighed the benefits of waiting until more information became available. In this manner, Staff believed actual savings from these programs would be realized earlier. In Decision No. 68488, February 23, 2006, the Commission ordered interim approval of the Non-Residential programs and further established APS' 13-month filing obligations to provide needed program details and to request final approval for the programs.

Staff believes the 13-month filing has provided an opportunity to make needed adjustments and changes to the Non-Residential programs based on actual experience with the programs. Staff's analysis of APS' Non-Residential DSM 13-month filing includes: 1) determination of APS compliance with its 13-month filing requirements, 2) Non-Residential DSM program budget considerations, 3) Non-Residential DSM program changes and improvements based on actual experience with the programs, 4) evaluation of proposed new Non-Residential DSM program measures, 5) Societal Cost Test analysis of all existing and new Non-Residential DSM measures, 6) examination and evaluation of actual Non-Residential DSM program results including kW and kWh savings, and 7) recommendations for final approval or non-approval of APS' six Non-Residential DSM programs.

A description of Staff's analysis and findings is contained in the attached Staff Report. In addition, Staff has made 41 recommendations regarding APS' Non-Residential DSM programs in its Staff Report.

STAFF RECOMMENDATION

Staff recommends that the Commission adopt the Staff recommendations contained in its attached Staff Report (see page 63).

for Ernest G. Johnson
Director
Utilities Division

EGJ:JDA:lhm\JFW

ORIGINATOR: Jerry D. Anderson

STAFF REPORT

UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

ARIZONA PUBLIC SERVICE COMPANY
DEMAND-SIDE MANAGEMENT PROGRAM PORTFOLIO PLAN
DOCKET NO. E-01345A-05-0477

13-MONTH FILING FOR
APPROVAL OF MODIFICATIONS AND FINAL APPROVAL OF ITS NON-RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS

NOVEMBER 12, 2008

STAFF ACKNOWLEDGMENT

The Staff Report on the Arizona Public Service Company's 13-Month Filing for Approval of Modifications and Final Approval of its Non-Residential Demand-Side Management Programs, Docket No. E-01345A-05-0477, was the responsibility of the Staff member listed below.

Jerry D. Anderson
Public Utility Analyst V

EXECUTIVE SUMMARY

13-MONTH FILING FOR APPROVAL OF MODIFICATIONS AND FINAL APPROVAL OF APS' NON-RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS DOCKET NO. E-01345A-05-0477

In Decision No. 68488, February 23, 2006, the Commission granted *interim* approval for the Non-Residential portion of Arizona Public Service Company's ("APS" or "the Company") Portfolio Plan of Demand-Side Management ("DSM") programs. Interim approval was granted because APS indicated that it had provided all available detail to Staff at that time, however, because the Non-Residential programs were new programs, there were still details that had not yet been established resulting in a lack of certainty and specificity in some areas of APS' Application.

The Commission further ordered in Decision No. 68488 that, within 13 months, APS re-file the Non-Residential portion of its DSM Portfolio Plan with 12 months of actual data for final Commission approval. On March 26, 2007, APS made multiple filings ("13-month filing") to fulfill its 13-month filing and reporting obligations.

The Non-Residential component of APS' DSM 13-month filing was made in this docket to provide the Commission with requested information about the Company's Non-Residential DSM programs and to request final Commission approval for those programs as required by Decision No. 68488. In this filing, the Company also provided additional information ordered by the Commission and requested modifications to some of its Non-Residential DSM programs.

Staff believes APS fulfilled its 13-month filing requirements. Staff recommends many program changes proposed by APS and several others Staff believes will improve the Non-Residential DSM programs. Staff performed the Societal Cost Test analysis on all of APS' existing and proposed Non-Residential DSM measures and recommends continuation of all existing measures and adoption of many new measures that performed favorably on those tests. Based on analysis of actual spending and energy saving performance of the programs, analysis of changes and improvements proposed for the programs, and its Societal Cost Test measure analysis, Staff recommends final approval of five of APS' six Non-Residential DSM programs:

1. Schools
2. Non-Residential Existing Facilities ("NR Existing")
3. Non-Residential New Construction and Major Renovation ("NR New")
4. Small Non-Residential ("NR Small")
5. Non-Residential Energy Information Services ("NR EIS")

Staff recommends denial of the Non-Residential Building Operator Training ("NR BOT") program.

TABLE OF CONTENTS

PAGE

INTRODUCTION **1**

Background and Historical Perspective 1
Report Organization and Format 2

SUMMARY OF APS' NON-RESIDENTIAL DSM 13-MONTH FILING **3**

APS Response to Specific Commission Requirements 3
APS Requests for Non-Residential Program Changes 4
APS Request for Approval of New Prescriptive Measures 5
APS Request for Non-Residential DSM Program Approval 5

COMPLIANCE TO DECISION NO. 68488 13-MONTH FILING REQUIREMENTS **5**

Provision of 12 Months of Actual Program Data 5
Status of Programs and Changes Made to Programs 6
Reporting on School Participation and Efforts to Reach Schools 6
Details Regarding Procedures to Override Program Caps 8
Incentives Paid for Studies on Uncompleted Projects 10

DSM PROGRAM BUDGET AND SPENDING SUMMARY **10**

Original Estimated Non-Residential DSM Program Budget 10
Non-Residential DSM Program First Year Spending 11
Non-Residential DSM Program Budget Modifications 12
Estimated Non-Residential DSM Program Budget After Modifications 12
Non-Residential DSM Program Spending 2005 Through 2007 13
Non-Residential DSM Program Remaining Budget Dollars 14

BUDGET AND INCENTIVE CHANGES AND ENHANCEMENTS **15**

Non-Residential Existing Program Budget Ceiling 15
Rebate and Incentive Limitation to 52 Percent of Overall Spending 16
$1,000,000 Cap on Planning and Administration Expense Recovery 17
Payment of Non-Residential DSM incentives to Building Owners 18
Technical Assistance and Study Incentive Changes 19
Shifting of Budget Dollars within a DSM Program 21
Inclusion of Prescriptive Incentives within a Custom-Efficiency Measure 22
Energy Information Services Incentive/Budget Enhancement 23
Custom-Efficiency Measure Incentive Level 25
Incentive Coordination with Other Entities 25

OTHER OPERATIONAL CHANGES AND ENHANCEMENTS **27**

Marketing Materials Submission 27
Other Marketing Considerations 27
DSM Semi-Annual Progress Report Content Additions 30

SMALL NON-RESIDENTIAL PROGRAM CHANGES AND ENHANCEMENTS **30**

Direct Install for Small Business 31
Proposed New Direct Install Measures 33
Direct Install Implementation on a Premise-Size Basis 35
Custom-Efficiency Measures and Studies for Small Business 36
Redefinition of Small Non-Residential from 200 kW or Less to 100 kW or Less 36

ADDITIONAL DSM PROGRAM SIZE AND MEASURE INITIATIVES **37**

Redefinition of NR New Program to Include Customers of All Sizes 37
Measure Availability by Program and Size 38

DIRECT INSTALL FOR SCHOOLS **39**

NEW PRESCRIPTIVE MEASURES **40**

Proposed New Lighting Measures 40
Proposed New HVAC Measures 42
Proposed New Envelope Measures 43
Staff Recommendations Regarding New Prescriptive Measures 45

STAFF COST-EFFECTIVENESS ANALYSIS **45**

STAFF RECOMMENDATIONS FOR NON-RESIDENTIAL PROGRAM APPROVAL **47**

Schools Program 50
Non-Residential Existing Facilities Program 52
Non-Residential New Construction and Major Renovation Program 54
Small Non-Residential Program 55
Non-Residential Building Operator Training Program 58
Non-Residential Energy Information Services Program 61

SUMMARY OF STAFF RECOMMENDATIONS **63**

EXHIBITS

EXHIBIT 1. *Incentive Summary*
EXHIBIT 2. *Measure to Program Matrix*

INTRODUCTION

Background and Historical Perspective

On March 26, 2007, Arizona Public Service Company ("APS" or "the Company") made two similar but separate filings ("13-month filing") to fulfill obligations arising from earlier Arizona Corporation Commission ("Commission") Decisions relating to the Company's portfolio of non-residential and residential demand-side management ("DSM") programs and activities. The Company was required to provide the Commission with specific information reflecting 12 months of actual experience with its DSM programs and to make its filing(s) within 13 months of Decision No. 68488 issued on February 23, 2006.

The non-residential component of the DSM 13-month filing was made in this docket to provide the Commission with additional information about the Company's Non-Residential DSM programs and to request final Commission approval for those programs as required by Decision No. 68488. In this filing, the Company also requested modifications to some of its Non-Residential DSM programs. This non-residential component of APS' 13-month filing is the subject of this report and is the final remaining component of the Company's 13-month filing requiring Commission action.

Earlier, the Commission acted on the other components of APS' 13-month filing. On August 28, 2007, the Commission rendered Decision No. 69879 in response to an APS application received on June 18, 2007, for expedited approval of certain time-sensitive initiatives contained in its 13-month filings. On December 4, 2007, the Commission rendered Decision No. 70033 in response to the residential components of the Company's 13-month filing.

On July 1, 2005, APS filed an application for approval of its DSM Portfolio Plan and related programs ("Portfolio Plan"). The Portfolio Plan includes various DSM programs that provide energy-efficiency opportunities for both residential and non-residential participants. The Portfolio Plan was filed in response to APS' DSM obligations provided for in Commission Decision No. 67744, April 7, 2005. APS filed revisions to its Portfolio Plan filing on November 14, 2005, and November 21, 2005.

The Commission acted upon APS' proposed Portfolio Plan programs and activities in a series of decisions in 2005 and 2006. On August 17, 2005, the Commission approved the lighting portion of APS' Residential Consumer Products program in Decision No. 68064. On February 23, 2006, in Decision No. 68488, the Commission granted interim approval for six APS Non-Residential DSM programs and further ordered APS to re-file the non-residential portion of its Portfolio Plan within 13 months, for final Commission approval. On April 12, 2006, the Commission approved two additional APS' Residential programs in Decision No. 68648 and its Low Income Weatherization program in Decision No. 68647. The Residential DSM Order included requirements for certain residential DSM program information to be included in APS' 13-month filing.

Staff recommended interim approval of the Non-Residential portion of APS' Portfolio Plan programs because of a lack of certainty and specificity in some areas of APS' Portfolio Plan Application. In response to Staff discovery on many issues, APS indicated that it had provided all available detail to Staff. However, because the programs were new, there were still details that had not yet been established. APS' plan was to hire implementation contractors to establish remaining details regarding the Non-Residential DSM programs and to then have the same contractors implement the programs.

Staff believed that the benefits of moving forward with the Non-Residential programs at that time with a recommendation for interim approval outweighed the benefits of waiting until more information became available. In this manner, Staff believed actual savings from these programs would be realized earlier. In Decision No. 68488, February 23, 2006, the Commission ordered interim approval of the Non-Residential programs and further ordered that, within 13 months, APS should re-file the Non-Residential portion of its DSM Portfolio Plan with 12 months of actual data for final Commission approval. The March 26, 2007, filings described above constitute APS' response to the 13-month filing requirement.

Report Organization and Format

Following a discussion of introductory information, this report outlines the content of APS' 13-month filing focusing on Company requests for program modifications, program enhancements, and program approval. It then discusses Staff's evaluation of APS' compliance to each specific Decision No. 68488 13-month filing requirement. Overall DSM budget information and Company-proposed budget changes are then discussed along with related Staff recommendations. Company-proposed and Staff-proposed program enhancements and Staff recommendations regarding those enhancements are then discussed followed by new Company-proposed DSM measures and related Staff recommendations. The six Non-Residential programs are then discussed individually in light of historical performance as well as proposed changes, and Staff offers its recommendations regarding final approval for each.

In its 13-month filing, APS reported various program spending, savings, participation, and other statistics based upon the 12-month period it was required to report. This was the 12-month period following the date of Decision No. 68488, February 23, 2006. For reasons of data availability, this 12-month period has been considered to be March 2006 through February 2007. Staff has focused on the 12 months of data APS reported and discusses Company experience with its Non-Residential programs during that 12-month period in this document.

Staff recognizes, however, that a year and a half has elapsed since the date of APS' 13-month filing on March 26, 2007, and that rapid program expansion has occurred in some Non-Residential programs during that period. Staff is in possession of data for the entire 2005 through 2007 period from the Semi-Annual DSM Reports APS has filed. These data include critical indicators such as spending, kWh and kW savings, participation numbers, and units of DSM installed. At relevant locations in the document, Staff has provided these updated figures to offer the reader the benefit of more current information. When these more current supplemental data are reported, Staff has identified the data as outside APS' required 12-month reporting requirement and clearly stated the time period represented by those data.

SUMMARY OF APS' NON-RESIDENTIAL DSM 13-MONTH FILING

APS states that it has incorporated its experience of the first 12 months since the Company was granted interim approval for its Non-Residential programs into its 13-month filing to support its request for final approval. The filing incorporates experience from the initial ramp-up and implementation of the programs; the results of its Energy-Efficiency Baseline Study ("Baseline Study"); the results of its Energy-Efficiency Market Potential Study ("Market Potential Study"); and initial Measurement, Evaluation and Research ("MER") findings. Based on these 12 months of experience, the Company has also recommended modifications to some of the Non-Residential programs, including revisions to some programs and the addition of new DSM measures. The Company believes these program enhancements will encourage more customers to participate in energy-efficiency projects, particularly in difficult to reach segments such as small business.

APS Response to Specific Commission Requirements

APS' 13-month filing reports on or responds to the following specific requirements ordered in Decision No. 68488:

1. To re-file the Non-Residential portion of the Company's Portfolio Plan with 12 months of actual data, for final Commission Approval.

2. To provide the status of the Non-Residential programs and changes that were made to budgets, incentive levels, and program implementation including Societal Cost Test analyses of each measure utilizing APS' Energy-Efficiency Baseline Study data.

3. To furnish information on the level of school participation in all DSM programs.

4. To report on the use of School program funds by size of school entity.

5. To outline its efforts to increase DSM funding to schools.

6. To provide details if APS would like to provide for an override of the Schools program incentive cap.

7. To provide details if APS would like to override the Non-Residential Existing incentive cap.

8. To provide details if APS would like to override the Non-Residential New incentive cap.

9. To provide details if APS would like to override the Small Non-Residential incentive cap.

10. To report instances of incentives being paid for studies for which associated projects were not completed.

11. To request approval of recovery for allowed Planning and Administration expenses beyond the $1,000,000 provided for in Decision No. 68488.

APS Requests for Non-Residential Program Changes

APS' 13-month filing also requests the following Non-Residential program changes based upon 12 months of experience with the programs:

1. Eliminate the budget ceiling for the Non-Residential Existing program.

2. Remove the 52 percent cap on incentives as a percent of total program costs.

3. Open program participation to property owners of facilities within APS' service territory.

4. Change $10,000 cap on studies (not retro-commissioning) from $10,000 per customer to $10,000 per facility.

5. Change $10,000 cap on retro-commissioning studies from $10,000 per customer to $20,000 per facility and include associated energy savings.

6. For customers participating in both custom and prescriptive measures, give customer the choice to include the prescriptive energy savings in the custom measure.

7. Implement multiple changes to the Small Non-Residential program to effectively reach this market segment as follows:

    a) Change the size category from 200 kW and smaller to 100 kW and smaller.

    b) Reallocate the budget to reflect the size of the smaller customer grouping.

    c) Provide a "Direct Install" program through which APS would provide trade allies a direct incentive to implement lighting and refrigeration measures at customers' facilities. Direct Install program incentives would be based on kWh savings achieved.

    d) Include all small business new construction under the Non-Residential New program.

8. Increase the incentive cap in the Non-Residential EIS program from $900 per customer to $12,000 per customer for multi-site customers, and maintain the cap at 75 percent of cost.

APS Request for Approval of New Prescriptive Measures

APS' 13-month filing also requests the addition of several new prescriptive DSM energy-efficiency measures:

1. Hard-wired compact fluorescent lamps ("CFL's")
2. Induction Lighting
3. Cold Cathode Lighting
4. Reduced Lighting Power Density (Non-Residential New only)
5. Package Terminal Air-Conditioners/Heat Pumps
6. Water-Source Heat Pumps
7. Economizers
8. Cool Roof Applications
9. High-Performance Glazing

APS Request for Non-Residential DSM Program Approval

APS' 13-month filing requests final approval for its six Non-Residential DSM programs in compliance with Decision No. 68488:

1. Schools
2. Non-Residential Existing Facilities ("NR Existing")
3. Non-Residential New Construction and Major Renovation ("NR New")
4. Small Non-Residential ("NR Small")
5. Non-Residential Building Operator Training ("NR BOT")
6. Non-Residential Energy Information Services ("NR EIS")

COMPLIANCE WITH DECISION NO. 68488 13-MONTH FILING REQUIREMENTS

Provision of 12 Months of Actual Program Data

APS is required by Decision No. 68488 to Re-file the Non-Residential portion of its DSM Portfolio Plan with 12 months of actual data, for final Commission approval. APS made its 13-month filing on March 26, 2007, in response to this requirement. The filing is generally consistent with Staff expectations in that most of the information Staff lacked at the time it reviewed the Non-Residential programs is included in the 13-month filing. Specific items of information that Staff believes were omitted from the 13-month filing have been requested and received by Staff through data requests. The 13-month filing also includes 12 months of actual expenses for each budget category and energy savings for each program, as required. In addition, the 13-month filing contains Company recommendations for adjustments and changes to the programs, as required, including some APS-proposed new measures. Staff has confirmed that results of APS' Baseline Study, April 12, 2007, and its Market Potential Study, September 12, 2007, were used in the 13-month filing, as required. APS has requested final Commission approval for its six Non-Residential programs, as required.

Staff believes that APS is in compliance with the 13-month filing requirement imposed by Decision No. 68488 to request final approval for its Non-Residential DSM programs. Staff recommendations concerning final approval for each program are contained in the section "Staff Recommendations for Non-Residential Program Approval."

Status of Programs and Changes Made to Programs

APS is required by Decision No. 68488 to report on the status of the Non-Residential programs and changes that were made to budgets, incentive levels, and program implementation including Societal Cost Test analyses of each measure utilizing APS' Energy-Efficiency Baseline Study data. In its 13-Month Filing, APS has included a section on the status and participation of each Non-Residential program. Program budget information included in APS' filing was supplemented with Staff data requests to provide a complete overview of program budgets and budget shifting summarized elsewhere in this document under "DSM Program Budget and Spending Summary." APS reported that the energy-efficiency savings and cost-effectiveness analyses of the various measures for the 13-month filing used the following data sources: 1) the Baseline Study; 2) the Market Potential Study; 3) experience and research findings from Summit Blue, APS' MER contractor; 4) APS Solutions for Business program experience during the first 12 months of program implementation; and 5) KEMA's* program experience in other similar market places. Staff was provided complete electronic copies of APS' measure analysis spreadsheets.

Staff believes that APS is in compliance with this requirement imposed by Decision No. 68488.

Reporting on School Participation and Efforts to Reach Schools

APS is required by Decision No. 68488 to report on the level of school participation in all DSM programs. For the 12-month period, APS paid incentives on 13 applications from five separate school districts representing 10 schools. APS reported the following levels of school participation in the Non-Residential DSM programs:

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* KEMA is APS' implementation contractor.

Table 1

School Participation in APS Non-Residential DSM Programs (March 2006 through February 2007)				
Program	**Incentives Paid**	**kW Savings**	**Annual MWh Savings**	**Lifetime MWh Savings**
Schools	$76,666	131.3	813	14,686
NR Existing	$189,455	511.9	2,354	38,023
NR New Construction	$0	0.0	0	0
NR Small	$496	0.4	20	227
Total	$266,617	643.6	3,187	52,936

Incentives to Schools from the Schools program alone have grown from the $76,666 level reported above to $272,199 through December 2007.

Staff believes that APS has adequately reported on school participation in the various APS Non-Residential programs in its DSM 13-month filing and is in compliance with this requirement imposed by Decision No. 68488.

APS is required by Decision No. 68488 to report on the use of School program funds by size of school entity. A school entity could be an individual school or school district. APS did include such data in its 13-month report. The size of each school entity is measured by number of students as reported by the school. APS appropriately reported on DSM expenditures paid on behalf of school entities from all Non-Residential DSM programs, not just the Schools program. Following is Table 2 containing data extracted from APS' 13-month filing responsive to this requirement:

Table 2

DSM Expenditures for Schools by Size of School Entity (March 2006 through February 2007)		
School Location	**Students in School Entity**	**Total Incentives Paid**
Metro School District	35,743	$131,598
Metro School District	34,226	$107,857
Metro School District	28,000	$19,512
Non-Metro School District	1,400	$3,869
Non-Metro School District	186	$3,286
Total	99,555	$266,122

Staff believes that APS has adequately reported on the use of DSM funds to benefit schools by size of school entity and is in compliance with this requirement imposed by Decision No. 68488.

APS is required by Decision No. 68488 to continually assess opportunities to increase DSM funding levels for schools and to report on its efforts to do so. The Company reported its outreach efforts to both rural and metro school districts in its service territory. These efforts included direct marketing and one-on-one meetings with the school districts. APS also reported its staff held multiple meetings with the Arizona School Facilities Board ("SFB") and presented the DSM opportunities available for schools to the SFB. APS provided further training and assistance to SFB staff regarding incorporation of the available DSM programs into SFB's new construction and renovation plans for Arizona schools. SFB has subsequently tightened its energy-efficiency requirements for new schools.

APS reported its program announcements were targeted to all charter schools in May 2006 and again in September 2006, and the Energy Office presented the APS DSM programs at the "call to the public" at the November 2006 monthly meeting of the State Board for Charter Schools. During the 12-month period, the Company has also targeted the Arizona Association of School Business officials, the Arizona School Administrator's Association, the Arizona Department of Education, the Greater Phoenix Purchasing Consortium of Schools, and all ten of the County School Superintendent's Offices that have school districts served by APS.

APS efforts to reach out to schools are also reflected in the budget numbers. Program Implementation for the Schools program was budgeted at $125,000 for the three-year period 2005 through 2007. Spending in this budget category for the 12 months reported in the 13-month filing is $141,877, exceeding the budget by 13.5 percent. Through December 2007, APS reported spending in this budget category to be $300,210, exceeding the budget by 140 percent. Staff is not excessively concerned with APS' overspending in this budget category and feels the Company is responding to Commission guidance in stepping up efforts to reach out to the schools beyond what was contemplated at the time the budget was originally estimated. Overall spending in the Schools program still remains significantly below the budget.

Staff believes that APS has assessed and pursued opportunities to increase DSM participation to benefit schools and is in compliance with this requirement imposed by Decision No. 68488.

Details Regarding Procedures to Override Program Caps

APS is required by Decision No. 68488 to provide details if it would like to override the Schools program incentive cap. APS has not requested to override the Schools program incentive cap. The Schools program cap is set at $15 per student per year or $25,000 per school entity per year, whichever is less. Because the Commission adopted a Staff initiative to allow schools to participate in any other Non-Residential DSM program at any time, either before or after reaching the budget cap, Staff believes an override of the Schools program cap became irrelevant. If a school desires to participate in DSM measures that would pay them in excess of the Schools program incentive cap, the school can simply apply to participate in the DSM measures as part of another program, such as the NR Existing program. Indeed, APS has paid incentives to at least two metro school districts in excess of the Schools program cap by paying up to the cap in the Schools program and paying further incentives to the same school district in the same year through another Non-Residential DSM program.

Staff believes that APS was not required to respond to the Schools program incentive cap override requirement unless it applied to override the cap. APS did not apply to override the Schools program incentive cap and is, therefore, in compliance with this requirement imposed by Decision No. 68488.

APS is required by Decision No. 68488 to provide details if it would like to override the NR Existing program or the NR New program incentive cap. APS has not requested to override the NR Existing program or the NR New program incentive cap. The incentive cap referred to in this requirement is the per-customer per program annual incentive limitation imposed by Decision No. 68488. This restriction limits incentive payments for all measures paid to any customer under the NR Existing and the NR New program to $300,000 per year for each program. APS did not request to override this restriction in spite of the fact that five customers requested incentives close to or over the $300,000 annual per customer cap.

This customer cap is not to be confused with the APS request in its 13-month filing to remove the cap on overall rebate and incentive spending in the NR Existing program. APS requested authority to spend over the total of $3,422,287 allocated in the 2005 through 2007 DSM budget for rebate and incentive payments in the NR Existing program. This issue was dealt with in Decision No. 69879, August 28, 2007, in response to APS' request for expedited approval of certain aspects of its 13-month filing. The Commission authorized an additional $3.5 million annually for rebates and incentives in the NR Existing program. Also, $1,454,000 was shifted to the NR Existing budget for rebates and incentives by APS from the NR Small and NR New programs under its authority to shift a maximum of 25 percent of budgeted funds from one program to another in the same sector.

Staff believes that APS was not required to respond to the NR Existing program and NR New program incentive cap override requirement unless it applied to override the cap. APS did not apply to override the NR Existing program or NR New program incentive cap and is, therefore, in compliance with this requirement imposed by Decision No. 68488.

APS is required by Decision No. 68488 to provide details if it would like to override the NR Small program incentive cap. APS has not requested to override the NR Small program incentive cap. The NR Small program cap is set at $150,000 per customer per budget year. APS is experiencing difficulty in stimulating customer interest in this program and has paid 13 customers a total of only $51,552 in rebates and incentives. Through December 2007, payments for rebates and incentives have grown to $1,669,175 in total, however, there has been no need for APS to request an override of the NR Small program $150,000 per customer per program incentive cap.

Staff believes that APS was not required to respond to the NR Small program incentive cap override requirement unless it applied to override the cap. APS did not apply to override the NR Small program incentive cap and is, therefore, in compliance with this requirement imposed by Decision No. 68488.

Incentives Paid for Studies on Uncompleted Projects

APS is required by Decision No. 68488 to identify the number of instances that incentives were paid for studies for which associated projects were not subsequently completed. In the 12 months following Decision No. 68488, one study was reported by APS as having been completed under the program. An incentive of $2,325 was paid for the study, but at the time of the 13-month filing, APS reported no applications had been submitted for incentives as a result of this study.

Through the end of 2007, APS has still not received an application for energy-efficiency measures from this customer resulting from this study. However, after the 13-month filing was made, APS received nine applications for technical studies and design assistance studies and has paid a total of $54,543 in study incentives. Of the nine paid study applications, one was for a building that is currently under construction and seven more resulted in full implementation of the study recommendations or activities leading to full implementation of the study results. Five of the seven were paid a total of $140,649 in additional prescriptive and custom-efficiency incentives resulting in savings of 84 kW; 1,661,000 annual kWh; and 23,998,000 lifetime kWh. Two of the seven have custom incentives reserved for $15,849 in additional incentives with potential additional savings of 19 kW, 162,000 annual kWh, and 2,910,000 lifetime kWh.

Staff's intent in recommending this requirement was to identify if a tendency exists toward APS customers being paid for studies for which no DSM energy-efficiency measures resulted. Staff believes that the experience to date is insufficient to draw any conclusion regarding such a tendency. For this reason, Staff recommends that APS continue to track DSM applications resulting from studies for which incentives have been paid, and report the semi-annual and cumulative results of its program-to-date tracking efforts in its DSM Semi-Annual Progress Reports.

Although the information provided is inconclusive, Staff believes that APS has met its obligation to report the number of instances that incentives were paid for studies for which associated projects were not completed, and is in compliance with this requirement imposed by Decision No. 68488.

DSM PROGRAM BUDGET AND SPENDING SUMMARY

Original Estimated Non-Residential DSM Program Budget

Table 3 is a compilation of the estimated budget for APS' Non-Residential DSM programs as included in Attachment 'A' of Decision No. 68488, February 23, 2006.

Table 3

Original Estimated Budget for Non-Residential DSM Programs as Included on Attachment 'A' of Decision No. 68488 (2005 – 2007)

Programs	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Training & Tech. Asst.	Consumer Education	Total	Pct of NR Budget
Schools	$164,000	$25,000	$125,000	$1,158,000	$183,000	$25,000	$1,680,000	8.1%
NR Existing	$676,007	$615,448	$1,674,527	$3,422,287	$236,603	$135,203	$6,760,075	32.7%
NR New	$736,007	$670,074	$1,823,152	$3,726,037	$257,603	$147,202	$7,360,075	35.6%
NR Small	$435,984	$396,928	$1,079,972	$2,207,175	$152,596	$87,196	$4,359,851	21.1%
BOT	$12,000	$9,000	$21,000	$0	$192,000	$6,000	$240,000	1.2%
EIS	$12,000	$7,500	$24,000	$240,000	$10,500	$6,000	$300,000	1.4%
Total NR	$2,035,998	$1,723,950	$4,747,651	$10,753,499	$1,032,302	$406,601	$20,700,001	100.0%
Percent of NR Budget	9.8%	8.3%	22.9%	51.9%	5.0%	2.0%	100.0%	

Non-Residential DSM Program First Year Spending

Table 4 is a compilation of APS-reported spending on the Company's Non-Residential DSM programs for the 12 months following Decision No. 68488 (March 2006 through February 2007). These spending numbers are not directly comparable with the three-year budget figures above in Table 3, as they represent program spending for less than 12 months, except for a total of $425,473 spent from January 2005 through February 2006 for Planning and Administration activities during the program planning and development stage. The six Non-Residential programs were implemented on various dates, all after Decision No. 68488, February 23, 2006, meaning that the figures in Table 4 below represent less than 12 months of actual program operations.

Table 4

Actual Spending for Non-Residential DSM Programs as Reported by APS in its 13-Month Filing (March 2006 – February 2007)

Programs	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Training & Tech. Asst.	Consumer Education	Total	Pct of NR Spending
Schools	$19,832	$475	$141,877	$76,666	$0	$241	$239,092	5.6%
NR Existing	$123,320	$8,903	$977,812	$850,093	$2,641	$4,691	$1,967,460	46.3%
NR New	$117,673	$8,765	$1,053,422	$62,480	$4,312	$2,117	$1,248,769	29.4%
NR Small	$60,913	$7,932	$589,091	$51,552	$390	$1,590	$711,469	16.8%
BOT	$1,578	$4,360	$10,931	$0	$24,183	$0	$41,051	1.0%
EIS	$12,813	$0	$24,521	$0	$0	$583	$37,917	0.9%
Total NR	$336,129	$30,435	$2,797,653	$1,040,792	$31,526	$9,223	$4,245,758	100.0%
Percent of Spending	7.9%	0.7%	65.9%	24.5%	0.7%	0.2%	100.0%	

Non-Residential DSM Program Budget Modifications

Certain modifications have been made to APS' DSM budget since the time it was established. APS exercised its budget flexibility authority granted by Decision No. 68488 to shift up to 25 percent of budgeted DSM program funding from one program to another program in the same sector (Residential sector or Non-Residential sector) per calendar year. In January 2007, the Company shifted $890,000 from the NR Small program (20.4 percent) and $1,490,000 from the NR New program (20.2 percent) to the NR Existing program. All of the programs involved are Non-Residential programs. In addition to these shifted funds totaling $2,380,000 transferred to the NR Existing program, Decision No. 69879, August 28, 2007, added an additional $3.5 million to the Rebates and Incentives category of the same program. Decision No. 69879 was rendered by the Commission in response to APS' application to expedite certain requests made in its 13-month filing because of their time sensitivity.

Table 5 summarizes all modifications made to the Non-Residential programs budget by budget category. Budget shifting of funds out of a program are shown as negative numbers represented in parentheses.

Table 5

Budget Shifting and Modifications
Made to Budget for Non-Residential DSM Programs
(2005 – 2007)

Programs	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Training & Tech. Asst.	Consumer Education	Total	Percent Change
Schools	0	0	0	0	0	0	0	0.0%
NR Existing	$190,000	$262,000	$315,000	$1,454,000 $3,500,000	$102,000	$57,000	$2,380,000 † $3,500,000 ‡	+35.2% +51.8%
NR New	($116,000)	($165,000)	($193,000)	($916,000)	($64,000)	($36,000)	($1,490,000) [1]	(20.2%)
NR Small	($74,000)	($97,000)	($122,000)	($538,000)	($38,000)	($21,000)	($890,000) [1]	(20.4%)
BOT	0	0	0	0	0	0	0	0.0%
EIS	0	0	0	0	0	0	0	0.0%
Total NR	0	0	0	$3,500,000	0	0	$3,500,000	+16.9%
Percent Change	0.0%	0.0%	0.0%	+32.5%	0.0%	0.0%	+16.9%	

Estimated Non-Residential DSM Program Budget After Modifications

Table 6 reflects the APS Non-Residential DSM program budget by budget category after modifications were made. This represents the current 2005 through 2007 budget in effect now.

† $2,380,000 was shifted to the NR Existing Program from the NR Small Program ($890,000) and the NR New Program ($1,490,000) under authority granted by Decision No. 68488 to shift a maximum of 25 percent of budgeted funds from one program to another in the same sector (all Non-Residential programs).

‡ $3,500,000 was added to the NR Existing Program budget for Rebates & Incentives by Decision No. 69879 in the matter of APS' application for expedited approval of modifications to certain demand-side management programs requested in the Company's 13-Month filing.

Table 6

Estimated Budget for Non-Residential DSM Programs After Budget Shifting and Modifications (2005 – 2007)

Programs	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Training & Tech. Asst.	Consumer Education	Total	Pct of NR Budget
Schools	$164,000	$25,000	$125,000	$1,158,000	$183,000	$25,000	$1,680,000	6.9%
NR Existing	$866,007	$877,448	$1,989,527	$8,376,287	$338,603	$192,203	$12,640,075	52.2%
NR New	$620,007	$505,074	$1,630,152	$2,810,037	$193,603	$111,202	$5,870,075	24.3%
NR Small	$361,984	$299,928	$957,972	$1,669,175	$114,596	$66,196	$3,469,851	14.3%
BOT	$12,000	$9,000	$21,000	$0	$192,000	$6,000	$240,000	1.0%
EIS	$12,000	$7,500	$24,000	$240,000	$10,500	$6,000	$300,000	1.2%
Total NR	$2,035,998	$1,723,950	$4,747,651	$14,253,499	$1,032,302	$406,601	$24,200,001	100.0%
Percent of NR Budget	8.4%	7.1%	19.6%	58.9%	4.3%	1.7%	100.0%	

Non-Residential DSM Program Spending 2005 Through 2007

Table 7 reflects actual APS Non-Residential DSM program spending through December 31, 2007. These spending numbers can be compared to the Table 6 budget as they represent the actual spending during the entire budgeting period, 2005 through 2007. It is recognized, however, that the six NR Programs were not approved or in operation for the entire three-year period (see Table 9).

Table 7

APS Actual Spending for Non-Residential DSM Programs Reported by APS in Semi-Annual DSM Progress Reports (2005 – 2007)

Programs	Planning & Admin	Program Marketing	Program Implement	Rebates & Incentives	Training & Tech. Asst.	Consumer Education	Total	Pct of Budget Spent
Schools	$78,307	$31,135	$300,210	$272,199	$2,193	$2,999	$687,043	40.9%
NR Existing	$433,668	$378,369	$2,172,576	$4,307,512	$66,176	$26,585	$7,384,886	58.4%
NR New	$329,907	$100,114	$1,675,451	$719,470	$19,138	$8,656	$2,852,736	48.6%
NR Small	$173,136	$65,773	$989,554	$193,710	$390	$11,473	$1,434,036	41.3%
BOT	$7,455	$15,783	$22,043	$0	$42,874	$0	$88,155	36.7%
EIS	$21,880	$0	$44,469	$3,447	$0	$583	$70,379	23.3%
Total NR	$1,044,353	$591,174	$5,204,303	$5,496,338	$130,771	$50,296	$12,517,235	51.7%
Pct of Budget Category Spent	51.3%	34.3%	109.6%	38.6%	12.7%	12.4%	51.7%	
Category Pct of Actual Spending	8.3%	4.7%	41.6%	43.9%	1.0%	0.4%	100%	

Non-Residential DSM Program Remaining Budget Dollars

Table 8 reflects the remaining budget dollars as of December 31, 2007. It is the APS Non-Residential DSM program budget after budget shifting and modifications less actual APS Non-Residential DSM program spending 2005 through 2007 (Table 6 minus Table 7).

Table 8

Remaining Budget Dollars for Non-Residential DSM Programs December 31, 2007

Programs	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Training & Tech. Asst.	Consumer Education	Total	Pct of Budget Remaining
Schools	$85,693	($6,135)	($175,210)	$885,801	$180,807	$22,001	$992,957	59.1%
NR Existing	$432,339	$499,079	($183,049)	$4,068,775	$272,427	$165,618	$5,255,189	41.3%
NR New	$290,100	$404,960	($45,299)	$2,090,567	$174,465	$102,546	$3,017,339	51.4%
NR Small	$188,848	$234,155	($31,582)	$1,475,465	$114,206	$54,723	$2,035,815	58.7%
BOT	$4,545	($6,783)	($1,043)	$0	$149,126	$6,000	$151,845	63.3%
EIS	($9,880)	$7,500	($20,469)	$236,553	$10,500	$5,417	$229,621	76.5%
Total NR	$991,645	$1,132,776	($456,652)	$8,757,161	$901,531	$356,305	$11,682,766	48.3%
Pct of Budget Category Remaining	48.7%	65.7%	(9.6%)	61.4%	87.3%	87.6%	48.3%	

Table 8 shows that the Company overspent its budget in nine sub-categories including the Program Implementation category for all six programs. None of the Non-residential programs taken as a whole overspent its program budget. Only the Program Implementation budget category taken as a whole has overspent its budget category total. Staff believes APS needs to make efforts to contain budget category spending within budget allocations.

In the 2005 through 2007 initial budget period, only 51.7 percent of the budget (after modifications) has been spent. It follows that 48.3 percent of the budget remains unspent. The budget was estimated for the 2005 through 2007 three-year period, but the programs did not come before the Commission for approval until February 14, 2006, and the Order approving them (Decision No. 68488) was issued on February 23, 2006. The implementation of five of the six programs followed within the month of the Order. In summary, 1) the programs were not operational during any month in 2005; 2) most of the Non-Residential programs were operational for about nine months of 2006; 3) all six programs were operational during all of 2007. We are, therefore, comparing actual Non-Residential program operations and spending that occurred over a 21-month period[§] to a budget estimated for a full three-year 36-month period. Staff believes the disparity between the 36-month budget period and the actual 21-month operations period of the programs is particularly significant during this phase of program roll-out

[§] With the exception of $425,473 Planning and Administration dollars APS spent for planning and development of the NR Programs prior to their actual approval and implementation.

as the acceleration in program activity and spending is rapid at this time as evidenced by recent program performance.

Implementation dates for the six Non-Residential programs are shown in Table 9 below:

Table 9

APS Non-Residential DSM Programs Implementation Dates	
Non-Residential DSM Program	**Date Implemented**
Building Operator Training	March 15, 2006
Existing Facilities	March 30, 2006
Small Non-Residential	March 30, 2006
New Construction and Major Renovation	March 30, 2006
Schools	March 30, 2006
Energy Information Services	November 16, 2006

BUDGET AND INCENTIVE CHANGES AND ENHANCEMENTS

Non-Residential Existing Program Budget Ceiling

In its 13-month filing, APS proposed that all NR Existing program applications received for approved DSM measures be paid an incentive, with no annual budget ceiling on spending for this program. As shown in Table 3, APS' budget ceiling for the program was set at $6,760,075 for the three-year period 2005 through 2007. In the 12-month period following Decision No. 68488, APS spent $1,967,460 on the program. APS' proposal to remove the $6,760,075 spending limit resulted from a rapidly accelerating level of customer interest and activity in the NR Existing program as reflected by actual incentives paid, applications received, and incentives reserved. In response to this activity, in January 2007, the Company shifted a total of $2,380,000 to the NR Existing program from the NR New program and the NR Small program as described above. In addition, Decision No. 69879 rendered August 28, 2007, in response to APS' request for expedited approval of modifications of certain DSM programs, added an additional $3.5 million annually to the Rebates and Incentives budget category of the NR Existing program.

Staff believes that APS' concerns about exceeding the original 2005 through 2007 budget for the NR Existing program have been dealt with. The infusion of an additional $3.5 million to the 2007 budget for Rebates and Incentives for the NR Existing program doubled the amount originally budgeted for this NR Existing program budget category for the three-year budget period 2005 through 2007. Budget shifting provided for in Decision No. 68488 added an additional $1,454,000 for this category. For these reasons, Staff believes APS' request to remove the budget ceiling on spending for this program is no longer relevant. Furthermore, Staff would be reluctant to recommend removal of an annual budget ceiling on spending for this or any other DSM program. Therefore, Staff recommends that APS' proposal, that all Non-

Residential Existing program applications received for approved DSM measures be paid an incentive with no annual budget ceiling enforced on spending for this program, be denied.

Rebate and Incentive Limitation to 52 Percent of Overall Spending

In Decision No. 68488, the Commission adopted a Staff recommendation that the combined expenditure for Rebates and Incentives for the Non-Residential programs from 2005 to 2007 be capped at 52 percent of the overall budget. APS has proposed that the 52 percent restriction on incentives be removed.

At the time interim approval was given for the Non-Residential programs, Staff had recommended the 52 percent cap during the initial three-year period to ensure that the nature of the programs would not vary significantly from the plan as the new programs were implemented. APS' original budget for the Non-Residential programs provided for a 51.9 percent allocation of the total Non-Residential budget to the Rebates and Incentives budget category. The 52 percent goal was applied to the overall Non-Residential collection of DSM programs in recognition that individual measure or program incentives may need to be modified up or down by APS, but the proportion of all Rebate and Incentive payments to overall Non-Residential program costs should remain relatively constant to ensure the nature of the programs remained as originally conceived. This recommendation reflects some concern on the part of Staff with a "spending goal" and was intended to ensure that the Company would not exercise its authority to increase rebates generally beyond what is needed to motivate customers to install energy-efficient devices, simply to meet a spending goal.

Staff believes that the 52 percent incentive restriction was intended to remain in effect only for the initial 2005 through 2007 time period during which the programs were being developed and implemented as new programs. The Company held expenditures for Rebates and Incentives to 24.5 percent during the required 12-month reporting period and to 43.0 percent through December 2007.

APS states that all of its Non-Residential program measures are cost-effective and that most of the programs are beyond the initial start-up phase. The Company believes that providing as much of the funding as possible to directly motivate customers to install energy-efficient devices further facilitates the overall goals of energy efficiency. The Company quotes its Energy-Efficiency Market Potential Study, on page 24, which states "it may be reasonable to expect that a particular program will have non-incentive costs of 50 percent (or higher) during its initial development and early years of implementation, but that as development costs decline and economies of scale are obtained, the non-incentive share may fall significantly."

Staff agrees that to maximize the energy efficiency obtained per dollar spent, a higher percentage of program funding should be expended as Rebates and Incentives and Program Marketing as programs mature and development and implementation costs decline. Staff believes that expenditures in the Planning and Administration and Program Implementation budget categories, in particular, should decline as programs mature. As a safeguard, the

Commission, in Decision No. 68488, imposed individual measure incentive caps and program incentive caps as well as an overall maximum incentive cap of 75 percent of incremental costs to restrict incentives. These safeguards remain in place.

Staff believes that the current 52 percent cap on rebates and incentives for the Non-Residential DSM programs could be counterproductive both at this point in their development and looking toward the future. In response to APS' request for expedited approval of modifications to certain DSM programs, Decision No. 69879, August 28, 2007; the Commission removed the 52 percent incentive cap on the NR Existing program beginning in the 2007 budget year. For the reasons outlined above, Staff recommends that the existing 52 percent limitation on combined Rebates and Incentives as a percentage of overall Non-Residential DSM spending in all existing Non-Residential programs be removed beginning in the 2008 budget year.

$1,000,000 Cap on Planning and Administration Expense Recovery

In Decision No. 68488, the Commission set a cap on APS recovery of Planning and Administration expenses for any Non-Residential DSM program at 10 percent of that program's total budget. This limitation was to be applied on a program-by-program basis. The Commission allowed a maximum of $1,000,000 of Planning and Administration expenses relating to the Non-Residential programs to be recovered within this limitation. APS has requested removal of the $1,000,000 limitation on recovery of actual incurred Planning and Administration expenses. APS has not proposed any change to the cap limiting recovery of Planning and Administration expenses for any Non-Residential DSM program to 10 percent of that program's total budget.

Recovery of APS' Planning and Administration expenses was limited because of concerns that APS was not able to identify all the components that would be included in this budget category. In its original application, APS identified certain information regarding employee salaries; however, other components were not known to APS at that time because the programs were new and the Company did not yet have actual experience with the programs. Staff recommended that APS request recovery in the 13-month filing because, at that time, APS would have 12 months of actual historical expense data for the Planning and Administration category that Staff could analyze. The Commission allowed recovery of qualifying Planning and Administration expenses actually incurred, but limited such recovery to a maximum of $1,000,000. Although not clearly specified in the Order, Staff believes that the $1,000,000 in Planning and Administrative expenses allowed by the Commission was intended to be for the 12 months covered in the 13-month filing at which time further action could be taken.

APS provided itemized historical details of Planning and Administration expenses for the first 12 months of the Non-Residential programs in this 13-month filing. Staff believes that the detail provided is adequate, and that the expenses included are appropriate Planning and Administration expenses. Staff furthermore believes the expenses are reasonable. Most of the items are APS employee salaries and employee expenses related to APS' development and supervision of the programs and oversight of contractors. APS spent a total of $336,129 on

Planning and Administration of the six programs from March 1, 2006, through February 28, 2007. Planning and Administration expenses were therefore kept under the allotted $1,000,000 cap.

Staff now has knowledge of the types of expenses that APS is including in the Planning and Administration budget classification and believes that they are appropriate. Therefore, Staff recommends the $1,000,000 limitation on APS recovery of Administration and Planning expenses related to the Non-Residential DSM programs be removed. Recovery of such program expenses is still 1) limited to actual incurred expenses, 2) subject to verification that they are legitimate expenses, 3) subject to verification they are appropriate for the Planning and Administration budget category, and 4) limited to 10 percent of the total program budget for each non-residential program.

APS reported in its 13-month filing that *overall* Administration and Planning expenses were kept under 10 percent of *overall* non-residential spending "as required by Decision No. 68488." Decision No. 68488, however, requires that Planning and Administration costs for any given program not exceed 10 percent of that program's total budget. APS is reminded that this limitation will be enforced on a program-by-program basis, and that cost recovery will be disallowed for those expenses that do not conform to the specific requirements of recommendation "u" in Decision No. 68444 as clarified below.

Staff believes that recommendation "u" was clear in that it was to be applied on a program-by-program basis, but that there could be some confusion about the time period to which this restriction applies. For clarification, Staff recommends that Planning and Administration costs for any given Non-Residential program, such as NR New, not exceed 10 percent of the total program budget for the budgeting period, such as 2005 through 2007 or 2008 through 2010.

Payment of Non-Residential DSM Incentives to Building Owners

APS currently has authorization to pay Non-Residential DSM program incentives only to APS customers. In the Residential sector, incentives are paid to builders for the Residential New Construction program and compact fluorescent lamps are "bought down" through payments to the lamp manufacturers in the Consumer Products program.

The Company has proposed to open Non-Residential DSM program participation to property owners of facilities within APS' service territory that lease space to APS customers. The reason for APS' request is to influence both APS customers and property owners to install energy-efficient technologies. Currently, property owners that lease facilities to non-residential customers are not eligible to participate in any APS Non-Residential DSM program. These property owners are responsible for selecting and installing major equipment that serves their facilities and their APS customer tenants. Because their tenants pay for the electric service, this group of property owners has little incentive to install energy-efficient equipment. Staff believes that this group of decision makers requires incentives to become motivated to make energy-saving decisions even more so than do APS customers who are motivated by lower electric bills.

The behavior that the APS DSM programs are attempting to encourage is the installation of energy-efficient equipment and the exploitation of energy-savings opportunities. Staff believes that barring building owners from participation in its DSM programs is a lost opportunity and is currently resulting in potential energy savings remaining untapped. For these reasons, Staff recommends that if building owners install DSM energy-efficiency measures that would qualify for APS incentives if made by the APS customer/tenant, the building owner be eligible to qualify for the incentive, and APS be authorized to pay such incentives to the building owner.

Such a change in procedures would be relatively easy to implement. The only additional safeguard would be that APS or its implementation contractor would need to verify that no additional incentive be paid to an APS customer (tenant) for the same energy-efficient measure installation for which an incentive was paid to the property owner. This would simply require verification of which party paid for the measure by requiring a copy of the invoice and paying an incentive only to the party that paid for the measure.

Availability of various measures now depends on the size of the customer and subsequent classification of that customer as eligible for specific Non-Residential program(s). Staff believes that APS could qualify building owners' eligibility for various measures based on which programs the tenant would be eligible for, if the customer/tenant had made the investment.

Technical Assistance and Study Incentive Changes

Cap of $10,000 on Technical Assistance Study Incentives - Decision No. 68488 provided for incentives to be paid to larger APS customers for various technical assistance activities including specific types of studies. The qualifying studies include Energy Feasibility Studies, Design Assistance Studies, Retro-commissioning Studies, and Commissioning Studies. These measures are available to customers through the NR Existing program, the NR New program, and the Schools program. Incentives are limited to 50 percent of the cost of the study up to a maximum of $10,000 per study. Further prescriptive or custom-efficiency incentives are available for the implementation of study recommendations to increase energy efficiency. The custom-efficiency incentives are paid one time at $0.11 per annual kWh saved, but are limited to 50 percent of the measure's incremental cost. The study incentives and the incentives paid to implement study recommendations are subject to the annual per-customer per-program cap of $300,000 in the case of the NR Existing and the NR New programs, and the lesser of $15 per student or $25,000 per school district per year in the case of the Schools program.

APS is proposing a modification to all technical assistance and study incentives to change the criteria for the "$10,000 limit per *customer*" to a $10,000 limit per *facility*. As stated above, study incentives are limited to 50 percent of the cost of the *study* up to a maximum of $10,000. Staff is not aware of a limitation that would restrict APS to administering this cap on a per-customer or a per-facility basis. Incentives for studies and measures identified by such studies are subject to the annual per-customer cap of the Non-Residential program through which the measures are installed. For purposes of administering the program cap, a customer is defined by APS as one or more sites, locations, or accounts controlled by a single decision maker. Normally, one "customer" will be comprised of those sites, locations, or accounts for which the electric bills are paid by a single entity.

Because study incentives are limited by individual study caps and by program caps for the program through which such studies are undertaken; and because Staff believes the individual study caps are to be applied on a per-study basis and has found no reason to believe that there was ever an intention to apply the study cap on a per-customer or per-facility basis; and to provide clarity and remove uncertainty; Staff, therefore, recommends that the cap on incentive payments for all technical assistance study incentives be applied to all customers on a per-study basis; and that no per-customer, per-facility, or annual limit apply to these incentives other than the customer's overall annual program cap for the program through which the study is undertaken. This recommendation applies to Energy Feasibility Studies, Design Assistance Studies, Retro-commissioning Studies, Commissioning Studies, and any other similarly designed studies that may be approved by the Commission for APS' Non-Residential DSM programs unless otherwise designated.

Cap of $10,000 on Retro-Commissioning Studies - Retro-commissioning Studies were included as one type of study approved by Decision No. 68488. Incentives for Retro-commissioning Studies, like the other approved studies, are limited to 50 percent of the cost of the study up to a maximum of $10,000 per study.

Retro-commissioning is a process to review the energy use of a building to determine if the building is performing the way it was designed to perform. Over many years of use, buildings often undergo modifications, equipment malfunction or degradation, and building operational changes. Retro-commissioning goes beyond being only a study, in that some issues identified can be immediately rectified as part of the retro-commissioning procedure. These issues may include operational savings such as changing Heating Ventilation and Air-conditioning ("HVAC") setbacks, repairing economizers, or sealing leaking ductwork. Many of these changes can result in immediate and sometimes substantial energy savings and are accomplished without further investment or incentives. Other issues identified by Retro-commissioning Studies may involve capital expenditures to replace or reconfigure building systems. These require additional energy-efficiency measures to capture the energy savings and normally result in applications to APS for further incentives.

APS is proposing to increase the cap on Retro-commissioning Studies from $10,000 to $20,000. The Company's proposal is based on the fact that retro-commissioning is more labor intensive compared to the other studies, and that energy-efficiency improvements are actually included as part of the retro-commissioning process. Retro-commissioning Studies require more effort. APS believes the higher incentive cap for Retro-commissioning Studies would be consistent with the costs and benefits associated with this type of study.

In response to discovery from Staff, APS provided information discussing the cost of retro-commissioning in other states. One study, conducted by the Lawrence Berkley National Laboratory, Portland Energy Conservation, Inc. ("PECI"), and Texas A&M University in 2004, demonstrated that an average of $35,000 per building was spent on retro-commissioning 150 buildings in 15 states. An earlier study conducted by PECI in 2001 reported retro-commissioning costs as high as $52,000 per building. These retro-commissioning costs would likely be higher today and provide contrast to the cost for other types of studies, for which APS has paid incentives, which averaged $12,283 per study.

Since the roll-out of the Non-Residential DSM programs in March 2006, APS has received no applications for Retro-commissioning Studies either in the 12-month reporting period required by the 13-month filing or to date. APS believes the lack of participation in this measure is in part because the maximum $10,000 incentive covers a relatively small portion of the total cost to retro-commission a building. The Company also believes the restriction of multi-facility customers to a $10,000 maximum retro-commissioning incentive per customer is a contributing factor. However, Staff reiterates its belief that APS misinterpreted Decision No. 68488, and that no $10,000 maximum incentive per customer restriction exists or was intended. Like the other studies, the Retro-commissioning Study cap is 50 percent of the cost of the study up to a maximum of $10,000 and is to be applied on a per-study basis. One Retro-commissioning Study is normally associated with one or more buildings or facilities heated and/or cooled by a single central HVAC plant. Also, like the other studies, the Retro-commissioning Study incentive is included in and limited by the customer's annual program cap.

Staff believes that Retro-commissioning Studies may identify and implement significant energy savings at relatively low cost. Staff also believes that one reason they have not been adopted by APS customers is that the incentive could be too low. Staff believes that sufficient justification has been presented to raise the Retro-commissioning Study cap. Staff recommends that the incentive maximum for a Retro-commissioning Study be increased from 50 percent of the cost of the study up to a maximum of $10,000, to 50 percent of the cost of the study up to a maximum of $20,000, and that the $20,000 cap be applied on a per-study basis.

Shifting of Budget Dollars within a DSM Program

APS has expressed uncertainty regarding its authority to shift budgeted funds from one budget category (e.g. Rebates and Incentives, Program Marketing, etc.) to another budget category within the same DSM program or from one sub-program or group of measures to another sub-program or group of measures within the same DSM program.

In the "program flexibility" provisions discussed in various decisions, including Decision No. 68488 granting interim approval for the Non-Residential DSM programs, the Commission granted authority for APS to shift a maximum of 25 percent of budgeted funds from one program to another program in the same sector (Residential sector or Non-Residential sector) per calendar year. However, the Order remained silent on APS' authority to shift funds within a DSM program.

Staff is guided by the principle that the Company requires a certain degree of flexibility to effectively administer its DSM programs. In response to Staff recommendations, the Commission has allowed APS budget flexibility but placed several parameters around such flexibility in order to retain a reasonable amount of control and oversight.

Staff believes that funding shifts within a program are less of a concern than funding shifts between programs. Staff previously stated in its memorandum underlying Decision No. 70033 concerning shifting funds within a DSM program, "It is not clear that funds could be shifted between components (or sub-programs or measure groups) of the same residential program, but Staff does not believe there is any language, cap, or restriction in place to prevent it."

Staff believes that shifting budgeted DSM funds between budget categories within a program and shifting funds between sub-programs, measures, or measure groups within a program have in common that both are shifting within an approved DSM program. Staff further believes that there is no reason why APS should not have the authority to make such budget shifts within an approved DSM program, without Commission approval, so long as such a shift does not violate another budget restriction placed on the Company by the Commission. For example, APS is limited to holding DSM program Administrative and Planning costs to a maximum of 10 percent of the total program budget, and should not be allowed to make budget shifts within a DSM program that would violate that restriction placed on the Company by Decision No. 68488.

Because of the reasons stated above and to provide clarity and certainty to APS; Staff recommends that APS be granted the authority to shift budgeted funds within a Commission-approved DSM program, without obtaining Commission approval, either between budget categories within a DSM program or between sub-programs, measures, or measure groups within a DSM program; unless such funding shifts would violate another budget-shifting parameter or limitation on budget flexibility ordered by the Commission. All budget shifts must be reported to the Commission in APS' DSM Semi-Annual Progress Report.

Inclusion of Prescriptive Incentives within a Custom-Efficiency Measure

APS is proposing, in instances where an integrated building energy simulation is performed as a custom-efficiency measure that identifies energy savings from both prescriptive and custom measures, that the prescriptive measure savings be combined into the overall custom application, and both be treated as a single custom-efficiency measure. This suggests that the incentives paid would be only for the custom-efficiency measure (a one-time payment of $0.11 per kWh saved) and that there would be no prescriptive measure incentives paid.

APS sites a number of potential advantages of its proposed treatment of these combined prescriptive and custom-efficiency applications. The Company states that the proposed treatment alleviates the possibility of double counting, a problem that Staff was concerned enough about to address specifically when interim approval was granted. APS also states that the proposed treatment will do a better job of measuring interactive effects, all of which are captured by an energy simulation, but are difficult or impossible to capture when prescriptive savings are accounted for separately. The Company sites the example in which a lighting load is reduced that saves energy for lighting but also reduces air-conditioning energy requirements. APS further states that eliminating procedures to separate energy savings attributable to prescriptive measures from savings attributable to custom-efficiency measures reduces administration costs.

Staff believes that this is an excellent example of why the Commission ordered the 13-month filing to provide an opportunity for APS to fine-tune its DSM procedures with the benefit of a full year of actual experience with the programs as a guide. Staff believes that the advantages stated by APS are valid, and that implementation of such a revision would result in a better program with lower administrative costs. Based upon Staff's analysis, Staff believes that total incentives to the customer may go up slightly, but this would be dependent on the prescriptive incentive schedule for the measures included within a custom-efficiency measure. Because this practice would result in savings in administrative expenses, elimination of the possibility of double counting, and possible increased participation; Staff recommends that in cases where an integrated building energy simulation identifies energy savings opportunities from both custom-efficiency and prescriptive measures, the prescriptive measures be allowed to be combined into the custom-efficiency application, the combination be treated as a single custom-efficiency measure, and a custom-efficiency incentive be paid based upon the combined energy savings.

Energy Information Services Incentive/Budget Enhancement

Decision No. 68488 provided for incentives to be paid to APS customers through the NR EIS program for installing metering and related equipment on a single metered site having a monthly billed demand above 200 kW. The program concept is to capture larger customer consumption and load profile data and to upload such data to a secure website via telecommunications lines. These data are then available on a password-secured website for customers to use to identify consumption trends so that energy-efficiency improvements can be made. The data are not available in real time; however, load profile data through the previous day are available. As originally conceived, the incentive was set at 75 percent of the incremental cost of providing the EIS installation up to a maximum of $1,000 per customer. APS EIS implementation contractors (Automated Energy, Inc.) are available to educate and assist customers in interpreting EIS data and in planning usage changes that will result in increased energy efficiency.

APS believed the cost of the needed meter equipment would be about $1,200 per installation, and thus proposed the incentive cap to be 75 percent of the cost, or $900 per customer per year. The meter prices have gone down, however, and the incremental cost is now believed to be in the area of $600 or less. The EIS program was the last of the six programs to be implemented (November 16, 2006) and has had few subscribers. During the 12-month reporting period, there were no participants. To date, there are 10 customers representing 29 meters participating. APS reported that it has received feedback from its customers that they often have multiple meters per site and often multiple sites. The customers stated that it would not make sense for them to equip only one of their meters with the EIS service, and they would like to see the program cap be raised to recognize the fact that program participants will want to install EIS on multiple meters within their control. Indeed, APS' study revealed that 73 percent of potential EIS customers have more than one qualifying meter.

APS is proposing to expand the incentives on EIS installations to allow more incentives for customers with multiple meters above 200 kW. The Company, however, is aware that the EIS program is a smaller budget program, and a need exists to retain a per-customer cap to ensure that one or a few of the eligible customers do not dominate the program to the exclusion of others. APS has requested that the $1,000 per customer cap be removed and replaced with a cap of $12,000 per customer per year which is five percent of the 3-year incentive budget.

Staff believes that this is another example where experience with the program provides previously unseen opportunities to fine-tune the program's operational parameters, so that it might be more appealing to potential customers and ultimately provide more energy efficiency. Staff believes limiting any one customer to five percent of the 3-year incentive budget is reasonable to keep a few customers from dominating the program.

For consistency and to accommodate customers with multiple metered sites, Staff is also recommending the *customer-size* eligibility criterion presently defined as a customer with a single-metered site having a monthly billed demand over 200 kW in the past 12 months of billing history be changed to a customer with a *meter or meters* having a monthly billed demand over 100 kW in the past 12 months of billing history.

In order to accommodate customers with multiple meters and/or multiple sites, Staff recommends that the Non-Residential Energy Information Services annual incentive cap of $1,000 per customer be removed and be reset to 75 percent of incremental cost up to a maximum of $12,000 per customer per year; that NR EIS incentives be paid only on meters having a monthly billed demand over 100 kW in the past 12 months of billing history; and that only meter costs and one-time set-up charges be included in the incremental cost from which the incentive is calculated. Other costs such as annual maintenance costs, phone lines, and telecommunications or internet costs are 100 percent customer responsibilities and are not eligible for inclusion in the calculation of the incentive amount. If adopted by the Commission, the proposed $12,000 annual incentive cap for the NR EIS program would be similar to the $150,000 per customer annual incentive cap for the NR Small program or the $300,000 per customer annual incentive cap for the NR Existing program. It follows that NR EIS incentives would not be included in or counted against a customer's $150,000 or $300,000 annual incentive cap for another Non-Residential program in which the customer may be participating.

Custom-Efficiency Measure Incentive Level

Staff believes that any DSM program or collection of DSM programs should move the market toward energy efficiency. Incentives are designed to provide an added motivation to make customers aware of the benefits of installing energy-efficiency measures. Incentives, however, are not intended to be permanent. Staff believes it is important to cautiously lower incentives on those programs or measures that have proven to be effective in changing customer behaviors regarding energy efficiency.

The custom-efficiency incentive is the one measure that is probably most important to the Non-Residential programs. It is currently set at $0.11 per annual kWh saved. This measure has been responsible for an overwhelming response to the NR Existing program and is successfully used for other programs, as well. Staff believes the programs that use this measure would continue to attract customers even if the incentive is slightly reduced.

Staff recommends the custom-efficiency incentive of $0.110 per annual kWh saved be reduced to $0.105 per annual kWh saved on July 1, 2009, and be further reduced to $0.100 per annual kWh saved on January 1, 2011, such reduction to be applied in all APS DSM programs to which the custom-efficiency incentive applies. The incentive would continue to be paid one time only for estimated kWh energy savings and be limited to 50 percent of the custom-efficiency measure's incremental cost.

Incentive Coordination with Other Entities

Staff believes that many different entities are beginning to realize the advantages, and indeed the necessity, of energy efficiency as an energy source. The federal Energy Independence and Security Act of 2007 was signed into law on December 19, 2007, and contains a number of initiatives that run somewhat parallel to APS' DSM programs. Among those provisions are initiatives for promoting conservation in buildings and industry, improving standards for appliance and lighting efficiency, emphasizing high-performance "green" buildings, promoting small business energy-efficiency programs including offering small businesses loans for energy-efficiency improvements, and advancing new standards for promoting energy efficiency in government and public institutions. Likewise, the State of Arizona, municipalities, and even subdivisions or homeowner associations are becoming more actively involved in energy-efficiency initiatives. In coming years, Staff believes it is inevitable that activity and involvement in energy-efficiency matters by other entities will increase.

Looking forward, Staff believes it will be imperative for APS to work increasingly with other involved entities, whether private or governmental, in order to maximize opportunities for energy efficiency in its service territory and minimize the cost of energy efficiency to both its participating and non-participating customers. In the future, Staff believes that APS will find it more difficult to act alone, and will indeed find it advantageous to work increasingly with these other entities involved in energy efficiency. For example, is it possible that provisions in the Federal Energy Act might be a source for low cost loans to enable small business to install more energy-efficiency improvements? Could APS research the new Act and possibly provide assistance to potential DSM participants with the cumbersome application processes customers may need to complete in order to participate? Could this be a strategy to help APS reduce its costs for DSM while achieving the same or even more energy efficiency?

Staff recommends that APS increase its efforts to work with other governmental and private entities involved with energy efficiency, and find ways to work collaboratively with them to evolve its DSM programs over time to complement their activities rather than to duplicate or compete with those activities, with goals to maximize energy efficiency while minimizing APS incentives to program participants and costs to all APS ratepayers that fund APS DSM programs.

Staff believes it is likely that federal, state, municipal or other rebates and incentives including tax credits could, in some cases, enable APS to reduce its own incentives without decreasing participation in its DSM programs or decreasing energy efficiency. Administration of an effort to coordinate incentives could be admittedly complex and cumbersome. Staff believes, however, that such coordination of efforts will be increasingly necessary in the future, and that APS should begin to move in that direction. Staff believes that APS' role could gradually change to the rebate experts educating non-residential customers about available incentives and helping them work through the application process. APS rebates could, and most likely would, remain part of the mix, but in some cases APS' role could be mostly educating clients about other available rebates and helping its customers to secure them.

Staff recommends that APS continually research and monitor other energy-efficiency rebates and incentives, including tax credits, that may be available to its Non-Residential DSM program participants throughout its service territory; and that the Company limit its incentive payments to program participants to ensure that the sum of all known monetary incentives, either paid or available to APS program participants from other entities for the same measure, be limited to APS' established measure cap, such as 50 percent or 75 percent of incremental cost, unless a different cap is ordered by the Commission. For example, if a DSM measure is capped under the APS NR Existing program at 75 percent of incremental cost, and incremental cost is \$12,000; the maximum incentive would be \$9,000. If a federal tax credit is available for \$2,000 for this measure, APS would be limited to providing an incentive of \$7,000 regardless of whether the customer applied for or received the federal tax credit. It is not Staff's intent that incentive dollars paid by other entities apply to APS maximum per-customer per-year program caps (such as \$300,000 per year) or to APS program budget caps. It is Staff's intent that more energy efficiency be accomplished per customer while remaining under the same per-customer per-year cap, and that more energy efficiency be accomplished under a given DSM program for the same number of program budget dollars.

Staff believes coordination of incentives will become increasingly necessary to prevent APS DSM participants from "gaming" the system in instances where multiple entities offer incentives. Without such coordination, it is possible that program participants could receive an incentive from APS and others totaling more than the maximum 75 percent of incremental cost, or even more than the total incremental cost, such that the participant is "making money" by installing the DSM measure. In such cases, the excess incentive paid would create no additional energy efficiency and would be wasted ratepayer money.

Staff is aware that there could be complications in implementing its recommendation. Tax rebates, for example, are deferred payments and are less desirable than a rebate received immediately upon installation of a measure. Tax-exempt entities such as schools are not eligible for tax credits and should not be penalized by Staff's recommendation. Staff believes that APS should have broad latitude to implement this restriction in a manner determined by the Company to be the most practical while staying within the constraints of the recommendation and the spirit of its intent. Staff believes that APS can best determine, for example, whether it would more advantageous to apply this restriction globally or on an individual measure basis.

OTHER OPERATIONAL CHANGES AND ENHANCEMENTS

Marketing Materials Submission

Decision No. 68488 requires APS to provide a copy of *all* marketing materials for Staff review within 30 days of the development of each piece. Staff was concerned at the time that APS had a $1.7 million 3-year marketing budget for the Non-Residential programs, but few details of the Company's marketing plan were contained in the original Portfolio Plan. Staff therefore recommended the above requirement as well as a requirement that APS provide a detailed Marketing Plan for the Non-Residential programs within 30 days of the Decision. The Commission adopted Staff recommendations and Staff did receive the Marketing Plan as well as the marketing pieces as they were developed, and found them to be satisfactory.

After having met the requirement for the first 12 months of program implementation, APS is requesting that the Commission drop this requirement, and that new marketing materials for each six-month period be provided to the Commission as part of the Company's Semi-Annual Progress Reports. Staff believes its original concerns were valid, but that through the submission of the Marketing Plan and periodic submission of new marketing materials over time, Staff has gained a sense of APS' marketing strategy and Staff's original concerns have been mitigated. Furthermore, many of APS' materials and forms are on the Company's website. Believing that its early concerns have been relieved, Staff recommends that the Decision No. 68488 requirement that APS provide copies of all Non-Residential DSM program marketing materials for Staff review, within 30 days of the development of each piece, be removed; and that a sample of such materials developed during each six-month period be included in APS' Semi-Annual DSM Progress Reports instead.

Other Marketing Considerations

Staff believes APS' strategy to take advantage of natural opportunities to promote energy efficiency at the time and place customers are making energy-related decisions is valid. Staff also believes that APS' strategy to work through trade partners including contractors and builders is reasonable. Further, Staff believes the Company's efforts to develop marketing pieces dedicated to specific business types is a reasonable strategy. Staff further believes the Company's seminars, trainings, and participation in trade shows are effective strategies. However, Staff is concerned whether APS has been doing enough to advertise and promote its Non-Residential programs.

Staff is concerned that APS-supplied data from Non-Residential program start-up through October 2007 indicated that only $64,000 (or 3.7 percent of budgeted dollars) had been spent for all Non-Residential programs for Program Marketing; the lowest percentage of spending as a percent of budgeted dollars of all budget categories at that time. However, $3,641,000 (or 25.5 percent of budgeted dollars) had been spent for all Non-Residential programs for Rebates and Incentives. Staff's concern is that it appears APS may not have been doing enough to promote its Non-Residential programs through advertising. The focus of Staff's analysis was to point out the difference in percent of budget spending between the two categories; 3.7 percent for Program Marketing versus 25.5 percent for Rebates and Incentives.

When data through the end of the 2005 through 2007 period became available, the numbers reflected a totally different scenario and created new concerns on the part of Staff. Data through December 2007 indicated that $591,000 (or 34.3 percent of budgeted dollars) had been spent for all Non-Residential programs for Program Marketing. In the same period, $5,496,338 (or 38.6 percent of budgeted dollars) had been spent for all Non-Residential programs for Rebates and Incentives.

These APS numbers indicate that, in the two-month period November 2007 through December 2007, the Company spent $527,174 on Non-Residential Program Marketing, or 89.2 percent of the total of $591,174 spent during the entire 2005 through 2007 budgeting period. In the same two-month period from November 2007 through December 2007, the Company spent $1,855,338 on Non-Residential program Rebates and Incentives, or 33.8 percent of the total of $5,496,338 spent during the entire 2005 through 2007 budgeting period.

This two-month period, of course, was the final two months APS had to meet its DSM spending goals set forth in Decision No. 67744, April 7, 2005. Decision No. 67744 specifically provided that "if during 2005 through 2007, APS does not spend at least $30 million of the base rate allowance for approved and eligible DSM-related items; the unspent amount will be credited to the account balance for the DSM adjustor." Staff believes that the end of 2007 was a high-growth period for the Non-Residential programs, but also believes payments were timed to allow it to meet its spending goal so that DSM monies collected would not need to be returned to ratepayers.

Staff has discussed this with APS and was indeed informed that the timing of Program Marketing dollars expended and marketing services received do not necessarily coincide. Staff therefore still remains uncertain as to the level of marketing activity (as opposed to dollars) that was expended throughout the approximate 21-month time period during which the programs were operational (from implementation through December 2007). Staff believes that more explanation of APS' marketing activity and expenditures during this period would be appropriate. Staff further believes that more explanation of APS' payments for rebates and incentives during this two-month period would be appropriate. Staff views such explanations, however, as being for purposes of approving or disapproving expense recovery rather than as a matter for this 13-month filing.

Staff believes that both marketing and incentives are important in changing customers' behavior to persuade them to participate in DSM programs and increase energy efficiency. Staff is concerned that APS' pre-October 2007 level of marketing efforts may have been insufficient to make customers aware of these programs and their advantages at a time when the programs were new and marketing efforts should logically be at a high level. Staff is also uncertain as to the actual level of ongoing marketing activity at any given point in time even though APS has submitted its Program Marketing expenses on a semi-annual basis, as required. This is because Staff has learned that the marketing activity and payment for marketing services are not necessarily coincident in time.

Therefore, Staff recommends that, within 90 days of a decision in this matter, APS submit a "Marketing Progress Report" to the Commission in Docket Control comparing its actual Non-Residential DSM program marketing activities and spending to the Marketing and Communications Plan submitted to Staff on May 25, 2006, in compliance with Decision No. 68488.

Staff further recommends that 1) APS determine if it might be able to raise customer energy-efficiency awareness and further promote its Non-Residential DSM programs through the use of additional marketing efforts and activities, that 2) APS review its Non-Residential programs to determine if there are areas where stepped-up marketing activities might either fully or partially displace the use of rebates and incentives to persuade customers to participate in its Non-Residential DSM programs, and that 3) APS consider whether changes and increases in its marketing or customer education activities might increase customer awareness of incentive programs or loans for energy-efficiency activities available from entities other than APS. The results of these three studies should be submitted to the Commission as part of its Marketing Progress Report.

Staff also recommends that APS provide a comprehensive description of its Program Marketing activity and the dispersion of that activity over the time period 2005 through 2007 and its relationship to Program Marketing expenditures 2005 through 2007, and include 1) a thorough explanation of the time period of marketing services rendered for each payment of Program Marketing expenses, 2) a thorough explanation of the extraordinary expenditures for Program Marketing during November and December of 2007 including what services were paid for, when such services were or will be received, and to whom payment was made, and 3) a thorough explanation of the extraordinary expenditures for Rebates and Incentives during November and December of 2007 and what incentives were paid, when such incentives were applied for, when they were installed, and other relevant details that might help Staff understand these payments. The requested data and explanations should be submitted to the Commission as part of APS' Marketing Progress Report.

DSM Semi-Annual Progress Report Content Additions

Staff believes the information APS includes in its DSM Semi-Annual Progress Report is very useful, but that the inclusion of additional information on the report would be helpful to Staff and to the Commission.

Staff recommends that, in its DSM Semi-Annual Progress Reports, APS continue to report its MWh savings resulting from DSM measures installed during the reporting period in terms of "lifetime" MWh savings over the expected life of the measures; and additionally, that it report MWh savings for the six-month reporting period; and that it report both lifetime and reporting period MWh savings by program not only for the period, but year-to-date and DSM program-to-date.

Staff also recommends that, in its DSM Semi-Annual Progress Reports, APS add program spending by budget category, and peak load MW savings; both year-to-date and DSM program-to-date, to supplement the 6-month reporting period data that the Company is currently filing.

Staff also recommends that, in its DSM Semi-Annual Progress Reports, APS report environmental savings in terms of Sulphur Oxide (SOx), Nitrogen Oxides (NOx), Carbon Dioxide (CO2), Particulate Matter (PM10), and Water (H2O); such savings to be reported both for measure lifetime savings from DSM measures installed during the reporting period and for savings during the six-month reporting period only; and that such savings be reported for the reporting period, year-to-date, and program-to-date.

SMALL NON-RESIDENTIAL PROGRAM CHANGES AND ENHANCEMENTS

APS efforts to reach "Small Business" customers with its NR Small program have fallen short of expectations. The Small Business category is defined as non-residential customers with a maximum monthly peak demand of 200 kW or less based on the past 12 months of billing history. This would include most commercial customers and some small industrial customers. In the 12-month reporting period (March 2006 through February 2007) required for the 13-month filing, APS reported a total of 49 applications from 24 customers resulting in 13 customers receiving a total of $51,552 in incentives. By any measure applied, participation remains low, and the cost to obtain that participation has been high in relation to participation and actual energy-efficiency savings.

Other utilities have also had difficulty in influencing small business customers to participate in DSM programs. Some of the barriers to participation are that 1) smaller business customers typically do not have facility managers or energy managers on site, 2) many commercial facilities do business in rented facilities, 3) smaller customers often have limited capital and higher priority ways to spend it compared to energy-efficiency projects, 4) project lead times are difficult for smaller businesses to tolerate, 5) the complexity of meeting program requirements to obtain program rebates can be overwhelming for small business, and 6) time and ability to research and identify energy-efficient projects and products is limited.

Decision No. 68488 contains Staff-estimated NR Small program results projections for three years that include $13.8 million in net benefits over the life of the measures, a reduction of annual peak demand by about 8.8 MW, and a reduction of energy consumption by about 729,000 MWh over the life of the measures. For the one-year reporting period required in the 13-month filing, APS reported its NR Small program energy savings of 11,336 MWh in lifetime energy savings and 144 kW in demand savings. Actual 2005 through 2007 results reported by APS indicate a reduction of peak demand by 0.52 MW, and a reduction of energy consumption of 42,577 MWh over the life of the measures. By any measure, results fell short of expectations.

Table 17, found toward the latter portion of this document, summarizes the NR Small program budget and expenditure information as reported in Tables 1-7.

Although Table 17 displays numbers for differing time periods, an examination of the table is none-the-less revealing. $890,000 budget dollars were shifted out of the program because spending was lagging the budget, resulting in only 41.3 percent of (reduced) budgeted funding being expended through December 2007. A full 103.3 percent of three-year implementation costs were expended in about 21 months, but only 11.6 percent of Rebates and Incentives were expended over the same time period. Program Marketing expenditures are 21.9 percent of budget. Based on the numbers presented, Staff is in full agreement with APS that program changes to the NR Small program are necessary if the program is to continue.

APS states that it has promoted the NR Small program through a variety of activities primarily through various trade allies and other business relationships. This includes trade ally training and recruitment, community outreach, leveraging existing APS relationships such as Chambers of Commerce, leveraging city and town economic development and permitting infrastructure, trade shows, building owner associations, and state agencies. Staff believes that these activities are useful; however, it is clear that they have not achieved the level of participation necessary for the program to thrive.

Direct Install for Small Business

APS states that its initiative to implement a "Direct Install" component for the NR Small DSM program would help mitigate many of the identified barriers to participation in the program by effectively lowering the first capital cost, minimizing customer inconvenience and transaction costs, and reducing real and perceived risks associated with equipment performance and contractor reliability.

Direct Install, as proposed by APS, involves providing incentives directly to contractors for the installation of selected high-efficiency lighting and refrigeration retrofit measures. The APS-proposed incentives for direct install measures consist of one-time payments based on fixed cents-per-annual-kWh-saved incentive rates, rather than fixed-dollar incentives per unit installed as currently paid for prescriptive measures. The feature of Direct Install that makes it appealing for this difficult to reach market segment is that the contractor would provide a turnkey energy-efficiency solution for small business customers involving a minimal time and effort commitment by the customer. The contractor would inspect the facilities for potential energy-savings opportunities, identify appropriate energy-efficient products, assure products meet program requirements and complete required applications online, receive approval or non-approval from APS, install the products if approved, and receive the incentive from APS. The contractor would then bill the customer for the difference between the contract price and the APS incentive received. From the customer's perspective, the only capital outlay is to pay the contractor for the difference between the contract price and the incentive.

APS is proposing incentive levels for direct-install measures that are higher than the current 50 percent or 75 percent of incremental cost caps currently in effect for APS DSM measures. APS is proposing an incentive level of $0.15 to $0.20 per annual kWh saved which would typically equate to as much as 100 percent of incremental cost. Furthermore, Direct Install is being proposed only for retrofit lighting and refrigeration measures. In retrofit scenarios, existing functional equipment is replaced with energy-efficient replacements to effect energy savings. In these retrofit applications, the baseline option is keeping the existing equipment, so the incremental cost is the difference between keeping the existing equipment (zero) and the cost of the new energy-efficient equipment. The incremental cost is therefore the total installed cost of the new energy-efficient equipment. This is in contrast to a replace-on-burnout scenario where the option is to replace a worn-out piece of equipment with either a "standard" or an "energy-efficient" replacement, in which case the incremental cost is the difference between the two.

Staff believes that the Direct-Install concept would help attract more participants to the NR Small program. APS states in its Application that "the direct-install program concept has a proven track record of high participation rate and cost-effective life-cycle savings for hard to reach markets." The basic principle of how the Direct Install technique works involves high incentive levels that produce high acceptance levels, and reduced marketing and per-transaction costs based on the high acceptance levels. In a non-Direct-Install scenario, marketing costs can be 30 percent to 40 percent of the cost of a lighting retrofit according to APS' implementation contractor, KEMA; because acceptance levels will be a very low percent of customers approached. However, with higher incentives, acceptance levels are greatly increased thus reducing marketing and per-transaction costs and keeping the measures cost-effective. The fact that contractors do much of the marketing and other program activities further reduces program costs and creates a viable business opportunity for contractors.

The Company states that "the challenge of this approach has been to successfully balance marketing and administrative costs with incentive levels to maximize cost effectiveness." APS further states that "the proposed program design minimizes marketing costs, while maximizing penetration and, therefore, cost effectiveness.

KEMA has had experience in implementing several Direct Install programs for utilities in Nevada and California. KEMA also has a web-based computer application it will make available to APS to automate much of the Direct Install procedure. Contractors would be motivated to find clients, inspect premises, determine which measures would be appropriate, and fill out APS' application form online. The software, in most cases, would automatically calculate the amount of rebate and issue an approval or disapproval online to the contractor. The APS-approved contractor would present this to the APS customer and receive authorization to proceed or not to proceed. If told not to proceed, the contractor would immediately move to the next potential client. If authorized, the contractor would install the measures, receive the incentive from APS, and bill the customer for any unpaid balance.

Proposed New Direct Install Measures

APS has proposed the following new measures for inclusion in its proposed Direct Install component for the NR Small program:

Direct Install Lighting Measures

1. T8 lighting retrofits – retrofit T12 fluorescent lighting with T8 lighting (incentive $0.15 per annual kWh saved).

2. Screw-in CFL retrofits – replacement of incandescent lamps with screw-in (incentive $0.02 per annual kWh saved).

3. Hard-wired CFL retrofits – replacement of incandescent lamps with hard-wired CFLs (incentive $0.15 per annual kWh saved).

4. Exit sign retrofits - retrofit of incandescent and CFL exit signs with light-emitting diode ("LED") or electroluminescent exit sign lighting (incentive $0.15 per annual kWh saved).

5. Occupancy sensors on lighting – installation of occupancy sensor controls on lighting (incentive $0.15 per annual kWh saved).

6. De-lamping – removal of lamps from fluorescent fixture lighting (incentive $0.12 per annual kWh saved).

Direct Install Refrigeration Measures

1. Integrated refrigerated case controls and motor retrofits – retrofitting refrigerated cases with control systems and other measures that reduce energy use. The integrated package includes fan and anti-sweat heater controls, high-efficiency fans, and other component controls (incentive $0.20 per annual kWh saved).

2. Refrigerated case evaporator fan controls – installation of refrigerated case evaporator fan controls (incentive $0.20 per annual kWh saved).

3. Refrigerated novelty case controls – installation of refrigerated novelty case on/off controls (incentive $0.20 per annual kWh saved).

4. Anti-sweat heater controls - installation of refrigerated case anti-sweat controls (incentive $0.20 per annual kWh saved).

5. Refrigerated case fan motor retrofit – retrofit of refrigerated case fan motors with high-efficiency motors (incentive $0.20 per annual kWh saved).

6. Occupancy sensor controls on vending machines – installation of occupancy sensor controls on vending machines (incentive $0.12 per annual kWh saved).

All of the Direct Install measures were analyzed by Staff using the Societal Cost Test and all were found to be cost-effective with the exception of "Integrated Refrigerated Case Controls and Motor Retrofits." This measure was found to have a benefit/cost ratio of only 0.91 and is therefore not recommended for inclusion in APS' Direct Install program at this time.

If the Direct Install approach is adopted for either the NR Small or Schools program or both, Staff recommends the following measures be available to those programs: 1) T8 Lighting Retrofits, 2) Screw-in CFL Retrofits, 3) Hard-wired CFL Retrofits, 4) Exit Sign Retrofits, 5) Occupancy Sensors on Lighting, 6) De-Lamping, 7) Refrigerated Case Evaporator Fan Controls, 8) Refrigerated Novelty Case Controls, 9) Anti-Sweat Heater ("ASH") Controls, 10) Refrigerated Case Fan Motor Retrofits, 11) Occupancy Sensor Controls on Vending Machines.

If the Direct Install approach is adopted for either the NR Small or Schools program or both, Staff recommends the "Integrated Refrigerated Case Controls and Motor Retrofits" measure shall not be included in APS' Direct Install programs at this time.

APS states that the Direct Install on-line proposal generation and project tracking computer application would reduce the transaction costs. Staff believes the computer system, which already exists, would be a key component of the Direct Install procedure's implementation and success. Staff has some concern that Direct Install is a new kind of activity for contractors and would require a new type of contractor, non-existent today, specializing in Direct Install and other energy-efficiency projects. APS indicated that in other markets where Direct Install was initiated, a group of contractors rapidly emerged in response to the market opportunity. Staff also believes that a group of contractors will emerge to do this work, but expects implementation to be less than immediate while these contractors emerge, adapt, and become knowledgeable in the Direct Install process. APS would train and certify contractor companies to do direct installs, and only APS-certified contractors would be paid incentives.

Direct Install Implementation on a Premise-Size Basis

Staff and APS have discussed the merits of defining the qualifying entity size to qualify for Direct Install in the NR Small program based on the size of the *premise*, rather than the size of the *customer*. Currently the size of customer eligible for the NR Small program, and thus the Direct Install component if passed by the Commission, includes facilities with a maximum monthly peak demand of 200 kW or less based on the past 12 months of billing history.

A DSM customer is defined by APS as one or more sites, locations, or accounts controlled by a single decision maker. Normally, one "customer" will be comprised of those sites, locations, or accounts for which the electric bills are paid by a single entity. A premise is a single site, location, or account which may be served by one or more meters. A school district, for example, may be a *customer* and a single elementary school may be a *site* or *premise*. Another example would be a chain of Circle K convenience stores. If a single franchisee owned 10 stores in various locations around Phoenix, that franchisee would be an APS DSM *customer*. One of his stores would be a site or a *premise*.

A contractor marketing Direct Install to a small commercial facility (such as a Circle K) would have no knowledge of whether the facility is part of a larger customer (over 200 kW) or not. Furthermore, to maximize energy efficiency, it makes more sense to encourage installation of energy efficiency at all of a customer's locations rather than at only one. Therefore, Staff believes Direct Install participation in the NR Small program should be based on the size of the *premise* being 200 kW or less (currently), even if the customer is ineligible for the NR Small program because of a demand over 200 kW (currently). In order to fairly allocate incentives, Staff believes the incentive cap paid to any customer ($150,000 or $300,000 per budget year for each program) should be based on the size of the *customer*.

Adoption of the Direct Install component would remove many of the barriers currently being experienced by potential NR Small program participants; 1) little or no capital would be required by the small business, 2) no financing plan would be necessary to finance the energy-efficiency upgrades, 3) payback of any capital invested would be rapid because it would be a small proportion of the project cost, 4) no time or dollars would need to be expended to research energy-efficient products, 5) performance uncertainty and inconvenience are minimized, and 6) no time or knowledge would be required to fill out extensive APS rebate or incentive forms.

Staff recommends that the Direct Install approach be adopted for the NR Small program, and that those APS-proposed Direct Install measures passing Staff's most recent Societal Cost Test be included in the program; that the program be implemented using premise size rather than customer size as the basis for eligibility; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures be capped at 90 percent of incremental cost and APS per-kWh-saved incentive rates for each Direct Install measure be re-calculated to conform to this restriction.

Staff further recommends that, if the Direct Install approach is approved, APS establish a separate reporting category in the DSM Semi-Annual Progress Report within each program section to which Direct Install applies in which to include enhanced reporting of Direct Install activities including but not limited to: 1) active number of contractors and contractor identification, 2) number of Direct Install jobs completed, 3) dollar value of the Direct Install incentives paid to contractors, 4) dollar value of Direct Install jobs paid by the customer, 5) number of each Direct Install measure for which incentives were paid, 6) number of instances when incentives were reduced because of eligibility for incentives paid by other entities, 7) spending and savings numbers attributable to Direct Install for the period and year-to-date and program-to-date, 8) descriptions of the types of businesses participating in Direct Install with frequencies of participation for each type, and 9) an estimation of the reduced marketing or other program or administration costs compared to those that would have been expended if the measures were implemented through a non-Direct Install program.

Custom-Efficiency Measures and Studies for Small Business

Currently, only prescriptive DSM measures are available to the NR Small program. Staff believes the Direct Install approach and its associated measures would appeal to many customers in this market segment, and that the addition of the Direct Install approach would help to reach this segment with cost-effective energy-efficiency measures. Staff also believes that custom-efficiency measures and studies that are available to the NR Existing program may also be useful in reaching some otherwise difficult to reach NR Small customers. Staff believes it will take multiple techniques, multiple promotional strategies, and multiple measure types to accommodate this market segment with cost-effective DSM. Direct install measures are more applicable to retrofit applications such as lighting replacements and refrigeration upgrades. The prescriptive measures are more applicable for Replace on Burnout ("ROB") applications such as HVAC or motor replacements. The custom-efficiency measures and studies would be used for unique or non-standard applications.

Staff recommends that the Custom-Efficiency measures and Studies available to some other APS Non-Residential programs be made available to the NR Small program; and that the $150,000 per year annual program cap for the sum of all incentives paid to a single customer in the NR Small program remain at $150,000 per customer per budget year; that Custom-Efficiency and Study incentives be included in that cap; and that the cap continue to be applied based on customer size.

Redefinition of Small Non-Residential from 200 kW or Less to 100 kW or Less

APS proposed redefining the NR Small program participant classification from those Non-Residential customers with a maximum monthly peak demand of 200 kW or less to include only those with a maximum monthly peak demand of 100 kW or less based on the past 12 months of billing history. APS' concept is to focus on a more homogenous group of small commercial customers that it has been having difficulty in reaching, and to allow those in the

100 kW to 199 kW size category to utilize some of the very successful measures available through the NR Existing program.

Staff believes that redefining the size of customers to be included in the NR Small program could result in opening up new energy-efficiency opportunities for APS' mid-sized customers and allow a sharper focus on the smallest customers with the greatest barriers to participation. Therefore, Staff recommends that APS redefine its Small Non-Residential program category to include non-residential customer facilities with a maximum monthly peak demand of 100 kW or less based on the past 12 months of billing history, and that the Company correspondingly redefine its Non-Residential Existing category to include APS non-residential customer facilities with a maximum monthly peak demand greater than 100 kW based on the past 12 months of billing history. If this reclassification is adopted, annual per-customer program budget caps would also be affected by its adoption. Budget caps currently break between 200 kW and below (current cap is $150,000 per year) and above 200 kW (current cap is $300,000 per year) and would change to break between 100 kW and below (cap would be $150,000 per year) and above 100 kW (cap would be $300,000 per year).

ADDITIONAL DSM PROGRAM SIZE AND MEASURE INITIATIVES

Redefinition of NR New Program to Include Customers of All Sizes

APS also proposed redefining the NR New program participant classification that currently includes those non-residential customers constructing large new facilities estimated to have maximum monthly peak demands greater than 200 kW or those customers planning major renovation projects of large existing structures having a maximum monthly peak demand of 200 kW or more based on the past 12 months of billing history. The Company's proposal would change this definition to classify all non-residential new construction or major renovations, regardless of size, to the NR New program.

Staff believes that such a change to re-classify the NR New program would be beneficial. Decision No. 68488, which granted interim approval for the NR Small program, was silent on whether the prescriptive measures available in the program were available to new construction or major renovation projects for small new customers. Indeed, the NR Small program did not have any provisions for Design Studies or other measures specifically tailored toward the new construction market. Staff believes the smaller business sector could benefit from an integrated systems approach to incorporate energy-efficiency improvements into new construction or major renovation projects. Staff believes that such measures should be available to new small business customers and is, therefore, supportive of APS' initiative to redefine the NR New program to include non-residential customers of all sizes.

In order to provide clarity that small new construction and major renovation projects are eligible for incentives, and to make custom-efficiency measures and studies available to this market sector; Staff recommends APS redefine its Non-Residential New program category to include non-residential customers of all sizes that are constructing new facilities or are planning major renovation projects, and that annual per-customer per-program budget caps break between 100 kW and below ($150,000 per year cap) and above 100 kW ($300,000 per year cap).

Staff also recommends APS re-allocate its DSM program budget for the 2008 through 2010 planning years to be consistent with any re-definition(s) of the Small Non-Residential, Non-Residential Existing, and Non-Residential New program customer size categories that may be ordered herein or any other changes ordered herein; and that APS either inform Staff that no reallocation is necessary, or file an update to the budget portion of its "Portfolio Plan Update 2008 – 2010," filed in Docket No. E-01345A-07-0712, to reflect such re-definition(s) or other changes not later than 30 days after a Decision in this matter.

Measure Availability by Program and Size

Table 10 summarizes the DSM programs and types of measures available to various sizes of APS non-residential customers both currently and as recommended by Staff. It illustrates Staff's recommendations to make custom-efficiency measures, studies, and direct install measures available to the NR Small program, and to make custom-efficiency measures and studies available to small new construction and major renovation projects.

Table 10

APS Non-Residential DSM Programs
Measure Types Available by Program and Re-alignment of Customer Size
(Current and Staff Recommended)

	Measure Types Available			
	Prescriptive	Custom Efficiency	Studies	Direct Install
Currently in Effect:				
Existing				
NR Small (≤ 200 kW)	X			
NR Existing (>200 kW)	X	X	X	
New Construction/Major Renovation				
NR Small (≤200 kW)	X			
NR New (>200 kW)	X	X	X	
Schools	X	X	X	
Staff Recommended:				
Existing				
NR Small (≤ 200 kW)	X	X	X	X
NR Existing (>200 kW)	X	X	X	
New Construction/Major Renovation				
NR New (All Size Customers)	X	X	X	
Schools	X	X	X	X

DIRECT INSTALL FOR SCHOOLS

APS has clearly exerted extra effort to reach out to the state's schools and school districts in its service territory in order to make DSM measures available to all schools. APS' efforts were rewarded with high participation rates in its programs by schools. The Commission's initiative to allow schools to participate in any other Non-Residential DSM program at any time, either before or after reaching the Schools program budget cap, made more DSM measures and more DSM funding available to the schools. Even with these initiatives to entice the schools, there are many schools that have not participated in APS' programs and other schools that could achieve additional energy efficiency.

One of the barriers to participation of many schools is that schools typically look at capital expenditure and operating budgets separately. The result is that such schools have difficulty justifying capital outlays for energy-efficiency measures that would reduce operating expenditures in the form of lower utility bills, even though such investments are clearly beneficial to the bottom line of the school district.

The Direct Install concept was discussed above as a mechanism and group of measures to gain participation by customers in the NR Small program through elimination of known barriers to participation by the small commercial sector. Interestingly, the Direct Install concept would also eliminate the issue of schools considering capital expenditure and operating budgets separately. One feature of Direct Install is that very little capital would be required by the schools. The direct install contractor would purchase and install the retrofits, receive the rebates, and bill the school only for any amount not covered by the rebate. Indeed, Staff believes the Direct Install concept could make APS' DSM measures available to many more schools, and generally make APS' DSM more appealing to the schools for a number of reasons including higher incentives. Based on input from the Arizona Department of Commerce Energy Office, APS stated its belief that many rural schools simply do not have the capital to participate in the existing Schools program measures. Direct Install, however, could make it possible for some of them to participate.

Direct Install is effective for lighting and refrigeration measures. Much of the schools energy-efficiency savings potential lies in lighting retrofits, and some additional potential exists in school cafeteria and vending machine refrigeration retrofits. Direct Install would not be helpful for HVAC replacements, but these can be done through other measures available to schools.

If Direct Install is approved for the NR Small program in this item, small schools would be able to participate in the measures through the NR Small program, since schools can participate in any other Non-Residential DSM program. However, most of the schools are over the 200 kW break point for the NR Small program, and would thus be ineligible for Direct Install under the NR Small Program.

If the Commission approves Direct Install for the Small Non-Residential DSM program, Staff recommends that the Direct Install approach be made available also for schools of all sizes, and that those APS-proposed Direct Install measures passing Staff's Societal Cost Test be included in the program; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures be capped at 90 percent of incremental cost, and APS per-kWh-saved incentive rates for these measures be re-calculated to conform to this restriction.

It should be noted that the issue of eligibility for Direct Install based on premise size, rather than customer size, is not a concern in the case of schools, because Staff is recommending that schools of all sizes should be eligible. The recommendation for eligibility by premise size in the NR Small program is to make small commercial facilities eligible even though they are part of a customer that is large enough to be classified in the NR Existing program, which does not offer Direct Install.

NEW PRESCRIPTIVE MEASURES

APS stated that it examined 12 potential new prescriptive measure additions including lighting, HVAC, and envelope energy-efficiency measures. APS looked at the specification of measure characteristics, demand and energy performance variables, operational characteristics such as operating hours, and customer costs. The Company also performed a Total Resource Cost ("TRC") test to determine cost-effectiveness of each measure. The Company is recommending nine of the 12 measures examined for inclusion in relevant NR Programs. Staff reviewed APS' analysis and performed its own Societal Cost Test to determine cost-effectiveness. Following is a discussion of each of the nine DSM measures APS proposed to be added to its prescriptive list of measures:

Proposed New Lighting Measures

Hard-wired CFL's – This measure provides for replacement of existing incandescent lamp fixtures with fixtures having a dedicated hard-wired CFL configuration. In the hard-wired CFL configuration, the ballast is contained in the fixture instead of being an integral part of each lamp. The fixture has a unique socket that accommodates only CFL lamps made for hard-wired CFL fixtures. The advantage of hard-wired CFLs is to assure that the savings associated with CFL lamp technology will persist beyond the initial lamp life and will continue to deliver savings over the life of the fixture, because the CFL cannot be replaced with an incandescent lamp.

APS has proposed an incentive of $15 to $20 per fixture depending on the wattage of the fixture. Fixtures of 13 Watts, 18 Watts, and 26 Watts replace incandescent fixtures of 60 Watts, 75 Watts, and 100 Watts respectively, and would carry a rebate of $15 per fixture. Fixtures of 32 Watts and 84 Watts replace incandescent fixtures of 150 Watts, and 300 Watts respectively, and would carry a rebate of $20 per fixture. Staff research indicates that adoption of this measure has been well received in other utility areas, but that the cost to savings is higher than for standard CFLs. Staff submission of this measure to the Societal Cost Test, however, indicates the measure is cost-effective.

Fluorescent Induction Lighting – This measure involves a new technology that combines the basic principals of induction and gas discharge. Fluorescent induction lighting ("FIL") fixtures are unique in that there is no electrical connection inside the glass bulb; the energy is transferred *through* the glass envelope solely by electromagnetic induction. Because these systems do not employ electrodes that can wear out, they deliver up to 100,000 hours of high quality white light and are useful in applications where replacing lamps is difficult, such as in transportation tunnels. FIL lighting offers improved energy efficiency, but also costs up to three times as much as high-intensity discharge ("HID") systems that yield similar lumen output.

Staff believes FIL fixtures may be effectively employed particularly in applications where long life and energy efficiency are required attributes. APS has proposed an incentive of $150 per fixture. Staff Societal Cost analyses indicate that FIL retrofits replacing 250 watt and 400 watt metal halide and high-pressure sodium fixtures with the equivalent lumen output 156 watt and 312 watt FIL fixtures are cost effective in spite of the higher cost because of their long service life.

Cold Cathode Lighting - Cold cathode lighting is a fluorescent technology often in the form of 1) fluorescent tubes, or 2) screw-in lamps that have an incandescent bulb appearance enclosing a CFL-like twist lamp inside. The tubular cold cathode lamps may resemble a fluorescent tube or a custom-shaped and often colored tube similar to a neon light. APS is proposing the adoption of only the screw-in CFL-like lamp retrofits for its Non-Residential programs.

All cold cathode lamps work by passing an electrical current through a gas or vapor. Cold cathode fluorescent lamps operate at higher voltage and lower current than conventional fluorescent or incandescent lamps. The higher voltage overcomes the need to heat the lamp while the lower current greatly extends the life of the discharge electrodes. Dispensing with the wasteful heating of electrodes allows high efficiency to be achieved in a compact screw-in lamp. Cold cathode lamps are typically 10 to 30 percent more efficient than comparable hot cathode fluorescent lamps, and up to 90 percent more efficient than incandescent lamps. The cold cathode lamps APS is proposing have a life expectancy more than twice that of typical CFL or long-life rated incandescent lamp, and they are dimmable. These cold cathode lamps are designed to be similar in size to a standard incandescent lamp and can be used in virtually any lighting appliance fitted with a standard screw-in socket. Cold cathode lamps are expensive and are often applied in long run hour applications, such as outdoor advertising signs.

APS has proposed a prescriptive incentive of $3.50 per lamp for cold cathode screw-in lamps regardless of the lamp wattage. Staff Societal Cost analysis indicates that retrofits of 25 to 75 watt incandescent lamps to 3 to 8 watt cold cathode lamps are cost effective in spite of their high cost, because they deliver energy efficiency over a long service life.

Reduced Lighting Power Density (NR New only) – Currently, APS' NR New program provides for a variety of Design Assistance Studies, contractor training measures, custom-efficiency DSM measures, prescriptive HVAC measures and prescriptive lighting measures for new construction or major renovation of non-residential structures. Many of the prescriptive lighting measures included in the program are now standard practice in new construction. However, further opportunities to save energy and to reduce demand exist through more efficient space lighting design and lighting optimization in new construction. The Lighting Power Density ("LPD") approach examines the watts per square foot of a baseline design compared to energy-efficient design. This is a performance-based approach that is gaining acceptance as a preferred methodology in DSM programs for new construction.

APS has proposed an incentive of $350 per kW saved to replace the prescriptive lighting incentives now paid under the NR New program. Staff subjected the new methodology to the Societal Cost Test and found the measure to be cost-effective. Furthermore, Staff likes the performance-based character of the proposed method and believes the elimination of any double counting possibility, when both prescriptive and custom-efficiency measures are employed in the same building, is an improvement.

Proposed New HVAC Measures

Package Terminal Air-Conditioners/Heat Pumps – Package Terminal Air-Conditioners/Heat Pumps ("PTAC/HP") are individual room or space units characterized by the lack of extensive external ductwork. They include window units, through-the-wall units, and wall sleeve units and are often used in hospitality or healthcare applications.

Manufacturers have developed a tier of energy-efficient PTAC/HP units which APS has proposed as a new prescriptive measure for new construction and retrofit applications. The Company has proposed an incentive of $45 per ton and $15 per incremental EER improvement. Staff has found the more energy-efficient tier of available PTAC/HP systems to be cost-effective for new construction or retrofit using the Societal Cost Test.

Water-Source Heat Pumps – Water-Source Heat Pump ("WSHP") systems are an energy-efficient method to heat and cool non-residential buildings because of the systems' ability to move energy from where it is not needed to where it is needed. WSHP units can be placed in virtually any location within a building where it can be connected via a water loop. Heat is added and rejected from the loop using a boiler and a cooling tower, or using geo-exchange from natural sources such as the ground, a pond or a well. Each unit responds only to the heating or cooling load of the individual zone it serves. This provides excellent comfort levels for occupants, better control of energy use for building owners and lower energy costs. One unit or zone can be adding heat to the loop while another unit or zone is taking heat from the same loop.

WSHP systems are utilized in a wide range of applications in the APS market, particularly in schools; but also in such applications as office buildings, hotels, health care facilities, banks, condominiums and apartments. APS has proposed a prescriptive incentive of

$25 per ton and $15 per incremental EER improvement for the replacement of a worn out heat pump, attached to an existing WSHP loop system, with a new high-efficiency heat pump. Using the Societal Cost Test, Staff has determined that replacement or retrofit of heat pumps on existing WSHP systems with high-efficiency water-source heat pumps is *not* cost-effective. WSHP systems were found to have a benefit/cost ratio of only 0.68 and are therefore not recommended for addition to APS' HVAC list of prescriptive measures at this time.

Economizers - Air-side economizers save energy in buildings by using cool outside air as a means of cooling the indoor space. When the enthalpy** of the outside air is less than the enthalpy of the re-circulated air, conditioning the outside air is more energy efficient than conditioning re-circulated air. When the outside air is sufficiently cool, no additional conditioning of it is needed. Air-side economizers can reduce energy consumption while also potentially improving indoor air quality, but are sometimes not as effective in hot and humid climates. Economizers on larger units (over five tons) are perceived to be a standard non-residential configuration, however, on smaller units, they are often not included. Retrofitting these units with economizers is not cost-effective. However, specifying economizers in new construction HVAC systems of five tons or less, or in ROB applications, was found by Staff to be cost effective as a prescriptive measure. APS' recommended incentive level is $15 per ton.

Proposed New Envelope Measures

Cool Roof Applications – APS proposed the cool roof application as a prescriptive measure in the NR Existing and NR New programs at the time its DSM Portfolio Plan was originally filed on July 1, 2005. The Commission did not approve the measure after Staff determined that neither reflective membranes nor reflective roof coatings could be justified by its Societal Cost Test analysis. Staff found that the marginal cost for the highly reflective surface over the standard surface to be zero or negative, and therefore could not justify the payment of any incentives for this measure. For this filing, APS re-examined the measure using revised global variables and a revised cost basis for comparison. The revised cost basis differs from the original filing in that a fully installed cost basis was used last time, but it was determined that it is more appropriate to use an incremental cost basis for most applications. This resulted in a more favorable cost-effectiveness analysis by APS. Based on these changes, the Company proposed a prescriptive incentive of $0.15 per square foot for single-ply reflective membranes and $0.25 per square foot for reflective coatings.

Based on discussions with local roofers, Staff believes that the standard specification for new or replacement commercial or industrial flat or low slope roofs in APS' service territory has been for a foam or membrane roof for many years in APS' service territory. Application of coatings to a foam or membrane flat roof is a routine maintenance item that needs to be performed approximately every four to six years to maintain the integrity of the roof so it will not leak. In commercial and industrial applications, the coating is often a white reflective one, although the coatings are available in other colors. The cost for a white or light-colored

** Defined as the sum of the internal energy of a body and the product of its volume multiplied by the pressure.

(reflective) coating is the same or less than a darker colored or color-matched coating. Staff therefore believes the incremental cost for the white reflective coating on an existing flat or low-slope roof remains zero and cannot justify the payment of an incentive for a cool roof reflective coating.

Staff does not believe an otherwise sound roof would be replaced just to gain the energy efficiency offered by a reflective surface on the new roof. In the event that a flat or low-slope roof failed, or in the case of a roof for a new building, Staff believes that the standard new or replacement roof in APS' service territory would be a membrane or foam roof that would very likely have a highly reflective surface. Staff, therefore concludes that the cost for a new cool roof or a replacement cool roof is identical to the cost for a standard new or replacement roof. Staff believes the incremental cost for an energy-efficient roof is therefore zero and cannot justify the payment of an incentive for a new or replacement cool roof.

Staff believes, however, that some existing commercial roofs in APS' service territory could benefit from an elastomeric or similar cool roof coating. These roofs may be built-up roofs with cap sheets, metal roofs, wood shake roofs, shingle or roll roofing, or other materials that could possibly be coated to provide increased reflectivity. Staff's Societal Cost Test to evaluate the application of a cool roof coating in such applications, however, proved the measure to be *not* cost-effective. Applying a reflective coating on an existing roof surface was found to have a benefit/cost ratio of only 0.51 and is therefore not recommended for addition to APS' list of prescriptive building envelope measures at this time.

Staff continues to advocate that APS should encourage customers to apply a white reflective surface for new or retrofit flat or low-slope roofs where a coating is going to be applied anyway. Staff also continues to believe it may be beneficial for APS to promote cool roof measures in its DSM educational and promotional materials. However, Staff cannot justify payment of an incentive for any of the proposed cool roof measures at this time.

High-Performance Glazing – High-performance glazing includes non-residential window systems with lower than standard u-values and solar heat gain coefficients ("SHGC"). APS analysis indicates that there is room for improvement in the control of solar loads in its service territory, and that a potential exists for a reduction in cooling requirements through high-performance glazing technologies. Energy Star standards emphasize that a low SHGC is the most important window property in warm climates. For the South Central Zone in which most of APS' customers reside, Energy Star standards suggest selection of windows with a SHGC of 0.400 or less. APS performed analysis on windows having SHGC of 0.400, 0.330, 0.260, and 0.230 and found them to be cost-effective.

APS has proposed an incentive of $0.50 per square foot for windows with a SHGC of 0.400 or less as a prescriptive measure for new construction under the NR New program. Staff subjected the measure to the Societal Cost Test and also found it to be cost effective.

Staff Recommendations Regarding New Prescriptive Measures

Based on Staff analysis and the above discussion of the nine new prescriptive DSM measures proposed by APS, Staff believes seven of the nine new measures would be beneficial to APS customers and society, and they should be added to APS' Non-Residential DSM programs.

Staff recommends the adoption of seven of APS' nine proposed new prescriptive DSM measures identified as the 1) Hard-wired CFL measure, 2) Fluorescent Induction Lighting measure, 3) Cold Cathode Lighting measure, 4) Reduced Lighting Power Density measure, 5) Package Terminal Air-Conditioners/Heat Pumps measure, 6) Economizers measure, and 7) High-Performance Glazing measure.

Using the Societal Cost Test, Staff has determined that replacement or retrofit of heat pumps on existing WSHP systems with high-efficiency water-source heat pumps is not cost-effective. Therefore, Staff recommends that the Commission deny approval of the Water-Source Heat Pump measure that would provide incentives to encourage customers to replace or retrofit heat pumps on existing WSHP systems with high-efficiency water-source heat pumps.

Staff believes the Cool Roof measures to provide incentives for new or replacement roofs as proposed by APS are based upon incremental cost assumptions that are not appropriate to the APS service territory or consistent with service territory roofing practices, and that the incremental cost of such cool roofs is zero. Therefore, Staff recommends that no incentive be paid for the Cool Roofs measures for new or replacement roofs at this time, but that APS encourage its customers to install a highly-reflective coated foam or membrane roof and include relevant cool roof information in its DSM customer educational materials.

Application of cool roof coatings to various existing roofing surfaces did not prove cost effective when subjected to Staff's Societal Cost Test. Therefore, Staff recommends that the Commission deny approval of the Cool Roof measure that would provide incentives to encourage customers to apply a highly reflective elastomeric or similar coating to various existing roofing materials.

STAFF COST-EFFECTIVENESS ANALYSIS

The Commission's 1991 Resource Planning Decision established the Societal Cost Test as the methodology to be used for determining the cost-effectiveness of a DSM program. Under the Societal Cost Test, in order to be cost-effective, the ratio of benefits to costs must be greater than one. That is, the incremental benefits to society of a program must exceed the incremental costs of having the program in place. Societal costs for a DSM program include the cost of the measure and the cost of implementing the program, excluding rebates. The societal benefits of a program include deferred or avoided generation capacity and energy costs. Other benefits of a program may include reduced water consumption and air emissions, although these benefits may not be monetized.

APS stated that it proposed only those measures it considered to be cost-effective based on its Total Resource Cost ("TRC")†† cost-effectiveness analysis. Staff also performed its own cost-effectiveness studies on all APS existing and proposed new DSM measures using the Societal Cost Test. Staff's analysis included 55 base measures and a large number of sub-measures. Any measure demonstrating benefits exceeding its costs has a benefit/cost ratio of 1.0 or greater, and is considered to be cost-effective. Measures scoring just under 1.0 can be considered cost-effective based on the value of environmental benefits which are quantified but not assigned a dollar value and not reflected in the Societal Cost Test score. All existing and proposed new measures and sub-measures tested by Staff were found to be cost-effective with the exception of the following four:

		Benefit/ Cost Ratio
Split and Package A/C SEER Rated 18 SEER	(Existing Sub-Measure)	0.91
Water-Sourced Heat Pumps	(Proposed New Measure)	0.68
Cool Roofs	(Proposed New Measure)	0.51
Integrated Refrigerated Case Controls and Motor Retrofits – Direct Install	(Proposed New Direct Install Measure)	0.91

Staff has recommended against adoption of the three proposed new measures that failed to prove cost-effective on its Societal Cost Tests.

The "Split and Package Air-Conditioning, SEER Rated – 18 SEER" is an existing sub-measure that is part of a group of five similar sub-measures differentiated by 14 SEER, 15 SEER, 16 SEER, 17 SEER and the 18 SEER sub-measure under discussion. The entire group was found by Staff to be cost-effective with a Societal Cost Test score of 1.02. Further examination of the individual SEER level air-conditioners in the group revealed that the 18 SEER units fell just short of being judged cost-effective. Staff believes it would be impractical to exclude the 18 SEER measure and to approve the others, as it could result in customer and contractor confusion. Furthermore, other considerations are deemed relevant by Staff when considering that the Societal Cost Test score of 0.91 is close to a passing score: 1) non-quantified environmental benefits not reflected in the test score add to the cost effectiveness; 2) the cost information provided by APS to the Commission at the time of the 13-month filing is more than one and one-half years old and may be lower today; 3) if the 18 SEER unit is not cost-effective today, it will most likely become cost-effective in the future as high-end units are replaced with higher SEER units, and yesterday's high-end units become mid-range units with premium pricing removed, and 4) the Commission, in cases involving other electric companies, has recently taken the position to adopt a group of varying SEER level air-conditioning or heat pump measures on a pilot basis in cases where some individual SEER level units within the group did not prove cost-effective.

†† The TRC test excludes non-market benefits to society, such as reduced environmental effects of energy production and delivery. The Societal Cost Test includes such benefits. Although the non-market benefits in the Societal Cost Test are not monetized, such benefits may be considered qualitatively.

Based on Staff's finding that the "Split and Package Air-Conditioning SEER Rated" measure was found to be cost-effective and that four of the five sub-measures included therein were found to be cost effective, Staff has made no recommendation to exclude the 18 SEER unit from the Split and Package Air-Conditioning SEER Rated measure.

STAFF RECOMMENDATIONS FOR NON-RESIDENTIAL PROGRAM APPROVAL

All six of APS' Non-Residential programs are in operation at the present time based on interim approval granted by Decision No. 68488, February 23, 2006. The reason interim approval was granted at that time, rather than full approval, was because APS had indicated in response to Staff discovery that it had provided all available program detail to Staff, but that there were still details that had not yet been established. The details had not been established because the programs were new, and many of the implementation details were to be worked out by APS' implementation contractor that APS was reluctant to hire until Commission approval of the programs and related budget dollars. Furthermore, the results of APS' Energy-Efficiency Baseline Study and its Energy-Efficiency Market Potential Study were not available at that time.

Program implementation details and studies that were not available at the time of Decision No. 68488 in February 2006 are available today and have been shared with Staff. Details of the programs were gleaned through APS' 13-month filing, Staff data requests, APS submission of various marketing materials and application forms, APS' website, APS' DSM Collaborative meetings, and Staff dialog with APS personnel engaged with the programs over more than two years of work with them. At the current time, Staff not only has APS' implementation details, but also actual program results for the Non-Residential programs. Staff believes that it now possesses sufficient data to make informed recommendations regarding Commission approval of APS' six Non-Residential programs.

Table 11 below is a summary of the overall "lifetime savings" expected to accrue from operation of the NR Programs from their startup through the end of 2007. Lifetime savings are those savings that will be realized over the lifetime of the measures installed during the period. The savings benefits are broken out for energy (MWh), demand (MW) and several different measures of environmental benefits.

Table 11

Non-Residential DSM Program Results Summary of "Lifetime" Savings From DSM Measures Installed 2005 - 2007								
Savings	**Units**	**NR Existing**	**NR New**	**NR Small**	**NR BOT**	**NR EIS**	**NR Schools**	**NR Total**
Electric Energy	MWh	1,003,888	257,424	42,577	8,962	0	63,602	1,376,453
Electric Demand	MW	8.97	1.68	0.52	0.07	0.00	0.59	11.83
Sulphur Oxide (SOx)	Lbs.	4,317	1,107	183	39	0	273	5,919
Nitrogen Oxides (NOx)	Lbs.	172,669	44,277	7,323	1,541	0	10,940	236,750
Carbon Dioxide (CO2)	Million Lbs.	920.6	236.1	39.0	8.2	0.0	58.3	1,262.2
Particulate Matter (PM10)	Lbs.	23,792	6,101	1,009	212	0	1,507	32,622
Water (H2O)	Million Gallons	233.9	60.0	9.9	2.1	0.0	14.8	320.7

Table 12 below displays DSM spending and savings, and combines the two to show how much was spent per unit of savings. The table also examines the incentive component spending by program individually. The numbers are presented for each NR Program, total of all NR programs and total of Residential Programs for comparison. The Non-Residential programs spent slightly less than the residential programs, with the Residential programs having spent \$15,327,559 and the Non-Residential programs having spent \$12,517,235 (excluding measurement, evaluation and research ("MER") and performance incentives. Energy and demand savings were similarly slightly lower for the Non-Residential programs than for the residential programs, with the Residential programs having saved 1,877,145 MWh and 52.4 MW and the Non-Residential programs having saved 1,376,453 MWh and 11.8 MW. Savings in externalities such as avoidance of pollution and savings of water are tied to energy savings.

The table also combines the cost and savings numbers to arrive at a unit cost per kWh and MW. The APS actual overall unit cost per kWh is slightly less than one cent per kWh. MER and Performance Incentive costs would add about 12 percent bringing the total cost to approximately one cent per kWh. In his Direct testimony in APS' last rate case in Docket No. E-01345A-05-0816, Mr. Jeff Schlegel of the Southwest Energy Efficiency Project ("SWEEP") stated that the total cost for energy-efficiency savings is about three cents per kWh (includes participant costs), and the program cost to ratepayers is even lower at one to two cents per lifetime kWh saved. Indeed it appears APS' results are toward the lower end of that range in spite of somewhat heavy start-up costs during this initial three-year period.

Table 12

Non-Residential DSM Program Results Analysis of APS Spending per Unit Saved (Utility Program Cost per Unit) DSM Measures Installed 2005 - 2007								
			Lifetime Savings		Spending/kWh Saved		Spending/MW Saved	
	APS Total Spending	Incentive Spending	MWh Savings	MW Savings	Total Spent $ per kWh	Incentive $ per kWh	Total Spent $ per MW	Incentive $ per MW
Non-Res.								
NR Exist.	$7,384,886	$4,307,512	1,003,888	8.97	$0.007	$0.004	$823,287	$480,213
NR New	$2,852,736	$719,470	257,424	1.68	$0.011	$0.003	$1,698,057	$428,256
NR Small	$1,434,036	$193,710	42,577	0.52	$0.034	$0.005	$2,757,762	$372,519
NR BOT	$88,155	$0	8,962	0.07	$0.010	$0.000	$1,259,357	0
NR EIS	$70,379	$3,447	0	0.00	N/A	N/A	N/A	N/A
Schools	$687,043	$272,199	63,602	0.59	$0.011	$0.004	$1,164,480	$461,354
Total NR	$12,517,235	$5,496,338	1,376,453	11.83	$0.009	$0.004	$1,058,093	$464,610
Resident.								
Total Res.	$15,327,559	$8,872,529	1,877,145	52.44	$0.008	$0.005	$292,288	$169,194
NR & Res								
Total	$27,844,794	$14,368,867	$3,253,598	64.27	$0.009	$0.004	$433,247	$223,570
Note: APS Total Spending by Program excludes Measurement Evaluation and Research ("MER") and Performance Incentive costs.								

Table 12 is also useful to compare program to program, and it includes an overall residential programs summary of costs for use in comparing Non-Residential to Residential results. Clearly, problem spots reveal themselves in this table. The spending per kWh saved for the NR Small program is obviously out of line and needs to be addressed, and indeed potential solutions have been recommended herein. It is likely that the reason costs for the NR New program are somewhat higher compared to savings is because of the long lead time and lifetime for the benefits of the program to accrue.

Notwithstanding the need for some mid-course corrections to APS' Non-Residential DSM programs, it is clear that the programs have delivered kWh and kW savings at a very low cost to APS ratepayers. The costs are significantly less than the costs of conventional generation, transmission and distribution.

Following are brief discussions of each of APS' Non-Residential programs. Tables for each program are included to examine APS' required 12-month results, and they also contain results through the entire 2005 through 2007 budget period for the reader's convenience. In comparing program results to portfolio plan program budgets for 2005 through 2007, it is useful to observe that the 12-month results or approximate 21-months of actual program operations results through December 2007 are not directly comparable to the 36-month budget numbers that also appear on the tables. The mismatch of time periods results from three factors; 1) Commission approval of the programs was delayed resulting in none of the programs starting at the beginning of 2005, 2) implementation of complex DSM programs does not occur immediately after Commission approval, and (3) full implementation may not achieved until as much as three years of program operations.

Based on program results, program information obtained by Staff, and Staff's recommendations for various program changes, Staff makes its recommendations regarding approval of each of the six Non-Residential programs following a brief discussion of each program.

Schools Program

The following table summarizes NR Schools program budget and expenditure information as reported herein on Tables 1-7.

Table 13

Non-Residential Schools DSM Program Summary of Budgets and Spending							
NR Schools Program	**Planning & Admin.**	**Program Marketing**	**Program Implement**	**Rebates & Incentives**	**Train. & Tech. Asst.**	**Consumer Education**	**Total**
Original Decision Budget[1]	$164,000	$25,000	$125,000	$1,158,000	$183,000	$25,000	$1,680,000
Spending Mar06- Feb07[2]	$19,832	$475	$141,877	$76,666	$0	$241	$239,092
Budget Shifting (out)	0	0	0	0	0	0	0
Budget After Shifting	$164,000	$25,000	$125,000	$1,158,000	$183,000	$25,000	$1,680,000
Spending thru Dec07[3]	$78,307	$31,135	$300,210	$272,199	$2,193	$2,999	$687,043
Dec07Spend % of Original	47.7%	124.5%	240.2%	23.5%	1.2%	12.0%	40.9%
Dec07 Spend % After Shift	47.7%	124.5%	240.2%	23.5%	1.2%	12.0%	40.9%
% of Total Pgm Spending	11.4%	4.5%	43.7%	39.6%	0.3%	0.4%	100.0%

Note: Table contains numbers representing differing time periods and cannot be directly compared:
[1] Original 3-year 2005-2007 Non-Residential Portfolio Plan budget included in Appendix 'A' of Decision No. 68488, February 23, 2006, that granted Interim Approval of the Non-Residential DSM programs.
[2] 12-month actual spending, March 2006 – February 2007, required to be reported in 13-month filing.
[3] Approximate 21-month period between NR Program approval and December 31, 2007, the end of the 2005 – 2007 budget period.

APS has been successful in its efforts to make the advantages of its Schools program known to school districts in its service territory. Indeed, APS spent 240.2 percent of its Schools Program Implementation Budget, however, its efforts were successful in gaining interest and participation from the school districts. APS' approach includes having its implementation contractor provide turnkey implementation services to the schools and also includes a grant to the Arizona Department of Commerce Energy Office to provide outreach to rural school districts.

In the 12-month reporting period following approval of the program, APS had paid incentives of about $266,000 ($76,000 through the Schools program and $190,000 through other programs available to the schools) on 13 applications from five distinct school districts.

The Commission's initiative to extend the availability of all of APS' Non-Residential DSM programs to the schools, rather than to limit the school's participation to the actual School program budget, has been a true benefit to the schools. While school districts comprise less than eight percent of APS' non-residential energy use, they have received 24 percent of the paid program incentive funds through all Non-Residential DSM programs.

The Schools program was approved on February 23, 2006. By March 31, applications were available via the program website. The following illustrates the level of activity in the program both within the Schools program and through other APS Non-Residential programs.

Table 14

Schools Activity and Participation in DSM Programs (2005 – 2007)

6-Month Period	Incentives Paid Through			Applications Received	
	Schools Program	Other Programs	Total	Number	From SD's
2005 Jan - Jun	0	0	0	0	0
2005 Jul - Dec	0	0	0	0	0
2006 Jan - Jun	0	0	0	4	3
2006 Jul - Dec	$73,380	$189,456	$262,836	31	12
2007 Jan - Jun	$39,220	$39,359	$78,579	35	10
2007 Jul - Dec	$159,599	$822,902	$982,501	39	13
3-Year Total	$272,199	$1,051,717	$1,323,916	109	38
Percent of Total	20.6%	79.4%	100.0%		

The School program spending reported in Table 13 and savings reported in Table 12 represent only spending and savings that resulted from incentives provided through the actual Schools program. Schools savings resulting from other programs are reported in the other program categories. Schools participation outside the Schools program occur mostly in the NR Existing program and also to a more limited extent in the NR New program, and the NR Small program. As Table 14 illustrates, only 20.6 percent of school participation in the APS Non-Residential DSM programs has occurred in the actual Schools program. Similarly, only about 20 percent of the energy, peak demand, and other savings accomplished by the schools are reported under the Schools program category on Table 11.

APS' Schools program is available to all public, private, and charter schools in APS' service territory. The program provides incentives to upgrade lighting, HVAC, and refrigeration systems as well as educational and training materials to aid schools in other energy conservation projects. It also provides Design Assistance, Commissioning and Energy Feasibility Study incentives to aid schools in identifying energy savings opportunities. In addition, it provides incentives for other cost-effective DSM projects by allowing schools to participate in any Non-Residential DSM program either before or after reaching the Schools program budget cap.

Staff believes that the Schools program has been initiated successfully and that the program is positioned to continue to produce energy-efficiency savings. Program total spending per lifetime kWh saved, as reported in Table 12 at $0.011 per kWh saved, is slightly high in comparison to most other programs. Staff believes this can be traced to the high program implementation costs. However, Staff believes it is in the public interest for APS to take extraordinary efforts to reach the schools with energy-efficiency measures that would save them money on their operating expenses.

Based upon the performance of the program and the discussion above, Staff recommends approval of APS' Non-Residential Schools DSM program. Staff believes the program would be improved even over current performance levels if Staff-recommended enhancements are adopted regarding 1) removal of the 52 percent incentive cap, 2) Direct Install for schools, 3) changes to study caps, 4) prescriptive measure results inclusion in custom incentives, and 5) addition of new prescriptive measures. Should the NR Small Direct Install concept be approved by the Commission, many rural schools may be motivated to participate in that program, as well.

Non-Residential Existing Facilities Program

The following table summarizes NR Existing program budget and expenditure information as reported herein on Tables 1-7.

Table 15

Non-Residential Existing Facilities DSM Program
Summary of Budgets and Spending

NR Existing Facilities Program	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Train. & Tech. Asst.	Consumer Education	Total
Original Decision Budget[1]	$676,007	$615,448	$1,674,527	$3,422,287	$236,603	$135,203	$6,760,075
Spending Mar06- Feb07[2]	$123,320	$8,903	$977,812	$850,093	$2,641	$4,691	$1,967,460
Budget Shifting (out)	$190,000	$262,000	$315,000	$1,454,000 $3,500,000	$102,000	$57,000	$2,380,000 ‡‡ $3,500,000 §§
Budget After Shifting	$866,007	$877,448	$1,989,527	$8,376,287	$338,603	$192,203	$12,640,075
Spending thru Dec07[3]	$433,668	$378,369	$2,172,576	$4,307,512	$66,176	$26,585	$7,384,886

‡‡ $2,380,000 was shifted to the NR Existing Program from the NR Small Program ($890,000) and the NR New Program ($1,490,000) under authority granted by Decision No. 68488 to shift a maximum of 25 percent of budgeted funds from one program to another in the same sector (all Non-Residential programs).

§§ $3,500,000 was added to the NR Existing Program budget for Rebates & Incentives by Decision No. 69879 in the matter of APS' application for expedited approval of modifications to certain demand-side management programs requested in the Company's 13-Month filing.

Dec07Spend % of Original	64.2%	61.5%	129.7%	125.9%	28.0%	19.7%	109.2%
Dec07 Spend % After Shift	50.1%	43.1%	109.2%	51.4%	19.5%	13.8%	58.4%
% of Total Pgm Spending	5.9%	5.1%	29.4%	58.3%	0.9%	0.4%	100.0%

Note: Table contains numbers representing differing time periods and cannot be directly compared:
[1] Original 3-year 2005-2007 Non-Residential Portfolio Plan budget included in Appendix 'A' of Decision No. 68488, February 23, 2006, that granted Interim Approval of the Non-Residential DSM programs.
[2] 12-month actual spending, March 2006 – February 2007, required to be reported in 13-month filing.
[3] Approximate 21-month period between NR Program approval and December 31, 2007, the end of the 2005 – 2007 budget period.

Examination of Table 12 shows that the NR Existing program has been the Non-Residential program on which more non-residential dollars have been spent than any other Non-Residential program; and it has produced more savings of lifetime kWh, kW, and other metrics than any other Non-Residential program. Indeed, it has been second in production of intended program results only to APS' Residential Consumer Products (CFL) program. Based on demand for the program, $2,380,000 were shifted by APS to the NR Existing program from the NR Small program ($890,000) and the NR New program ($1,490,000) under authority granted by Decision No. 68488 to shift a maximum of 25 percent of budgeted funds from one program to another in the same sector (all Non-Residential programs). Decision No. 69879 authorized an additional $3.5 million annual funding for program incentives for this program on August 28, 2007, based on anticipated further customer demand for this program.

Table 15 indicates that spending during the required one-year reporting period March 2006 through February 2007 was near one-third of the three-year budgeted amount, very much on target. Indeed, through December 2007, APS had spent 109.2 percent of the original 3-year budget in about 21 months. Had monies not been shifted to the NR Existing program and additional monies allocated to the program, APS would have exceeded its original budget by the end of 2007 as full three-year spending has now been reported at $7,384,886 compared to the original budgeted amount of $6,760,075. Table 12 shows program savings of 1,003,888 lifetime MWh and 8.97 MW, the greatest savings of all Non-Residential programs.

The NR Existing program was made available on March 30, 2006, to large non-residential customers having a maximum monthly peak demand over 200 kW based on the past 12 months of billing history. The program provides prescriptive incentives for improvements in lighting, HVAC, motors, and refrigeration applications. For DSM applications not covered through prescriptive incentives, the program provides custom-efficiency incentives to promote energy-efficiency measures. The program also provides incentives for covering a portion of the cost of an energy study to identify additional energy-efficiency opportunities. APS' implementation contractor provides turnkey implementation services for this program.

Staff believes the NR Existing DSM program ramped up rapidly and that the program is positioned to continue to produce energy-efficiency savings. The spending per kWh saved metric reported in Table 12 is the lowest of all the Non-Residential programs and the incentive per kWh saved is in line with all APS DSM programs.

Based upon the performance of the program and the discussion above, Staff recommends approval of APS' Non-Residential Existing Facilities DSM program. Staff believes the program would be improved even over current performance levels if Staff-recommended enhancements are adopted regarding 1) removal of the 52 percent incentive cap, 2) incentives to property owners, 3) changes to study caps, 4) prescriptive measure results inclusion in custom incentives, and 5) addition of new prescriptive measures. Staff's recommendation for approval of the program, however, is not contingent on approval of any or all of these other initiatives.

Non-Residential New Construction and Major Renovation Program

Table 16 summarizes NR New program budget and expenditure information as reported herein on Tables 1-7.

Table 16

Non-Residential New Construction and Major Renovation DSM Program Summary of Budgets and Spending

NR New Construction Program	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Train. & Tech. Asst.	Consumer Education	Total
Original Decision Budget[1]	$736,007	$670,074	$1,823,152	$3,726,037	$257,603	$147,202	$7,360,075
Spending Mar06- Feb07[2]	$117,673	$8,765	$1,053,422	$62,480	$4,312	$2,117	$1,248,769
Budget Shifting (out)	($116,000)	($165,000)	($193,000)	($916,000)	($64,000)	($36,000)	($1,490,000) ***
Budget After Shifting	$620,007	$505,074	$1,630,152	$2,810,037	$193,603	$111,202	$5,870,075
Spending thru Dec07[3]	$329,907	$100,114	$1,675,451	$719,470	$19,138	$8,656	$2,852,736
Dec07Spend % of Original	44.8%	14.9%	91.9%	19.3%	7.4%	5.9%	38.8%
Dec07 Spend % After Shift	53.2%	19.8%	102.8%	25.6%	9.9%	7.8%	48.6%
% of Total Pgm Spending	11.6%	3.5%	58.7%	25.2%	0.7%	0.3%	100.0%

Note: Table contains numbers representing differing time periods and cannot be directly compared:
[1] Original 3-year 2005-2007 Non-Residential Portfolio Plan budget included in Appendix 'A' of Decision No. 68488, February 23, 2006, that granted Interim Approval of the Non-Residential DSM programs.
[2] 12-month actual spending, March 2006 – February 2007, required to be reported in 13-month filing.
[3] Approximate 21-month period between NR Program approval and December 31, 2007, the end of the 2005 – 2007 budget period.

Predictably, the NR New program has taken a long time to gain momentum. The lead time for construction of most new commercial and industrial facilities, or major renovation of such facilities, is at least one to two years, resulting in the payment of incentives and the

*** $2,380,000 was shifted to the NR Existing Program from the NR Small Program ($890,000) and the NR New Program ($1,490,000) under authority granted by Decision No. 68488 to shift a maximum of 25 percent of budgeted funds from one program to another in the same sector (all Non-Residential programs).

realization of energy efficiencies long after working with customers to include energy efficiency in their projects.

Table 16 indicates that during the required one-year reporting period March 2006 through February 2007, spending was heavily weighted with Program Implementation expenses, yet total spending was only 17.0 percent of the three-year program budgeted amount. Program Rebate and Incentive spending for those first 12 months of the program was $62,480. Rebate and incentive program-to-date spending through December 2007 accumulated to a level of $719,470. In the first quarter of 2008, it increased another $416,400 to $1,135,870. Thus, it appears that early efforts expended on this program are beginning to result in energy-efficient facilities being completed and incentives being paid.

The NR New Construction and Major Renovation program is available to large non-residential customers having a maximum monthly peak demand over 200 kW based on the past 12 months of billing history. The program provides design assistance, custom-efficiency measures, and prescriptive incentives for lighting, HVAC, motors, and refrigeration applications.

Staff believes the NR New program is now beginning to deliver energy-efficiency savings to its participants. Delivery of actual energy-efficiency savings occurs approximately concurrent with the payment of incentives. It appears that the results of earlier efforts are finally beginning to produce energy-efficiency savings, and Staff believes the program is positioned to continue to produce energy-efficiency savings. The incentive spending per kWh saved reported in Table 12 is the lowest of all the Non-Residential programs, and Staff believes the total spending per kWh saved will decrease as the up-front implementation expenditures are spread among more energy savings that are beginning to be realized.

Based on the recent surge in performance of the program as discussed above, Staff recommends approval of APS' Non-Residential New Construction and Major Renovation DSM program. Staff believes the program would be improved over current performance levels if Staff-recommended enhancements are adopted regarding 1) removal of the 52 percent incentive cap, 2) incentives to property owners, 3) changes to study caps, 4) prescriptive measure results inclusion in custom incentives, 5) addition of new prescriptive measures and 6) redefinition of the NR New Program to include customers of all sizes. Staff's recommendation for approval of the program, however, is not contingent on approval of any or all of these other initiatives.

Small Non-Residential Program

The following table summarizes NR Small program budget and expenditure information as reported herein on Tables 1-7.

Table 17

Small Non-Residential DSM Program
Summary of Budgets and Spending

Small NR Program	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Train. & Tech. Asst.	Consumer Education	Total
Original Decision Budget[1]	$435,984	$396,928	$1,079,972	$2,207,175	$152,596	$87,196	$4,359,851
Spending Mar06- Feb07[2]	$60,913	$7,932	$589,091	$51,552	$390	$1,590	$711,469
Budget Shifting (out)	($74,000)	($97,000)	($122,000)	($538,000)	($38,000)	($21,000)	($890,000)[†††]
Budget After Shifting	$361,984	$299,928	$957,972	$1,669,175	$114,596	$66,196	$3,469,851
Spending thru Dec07[3]	$173,136	$65,773	$989,554	$193,710	$390	$11,473	$1,434,036
Dec07Spend % of Original	39.7%	16.6%	91.6%	8.8%	0.3%	13.2%	32.9%
Dec07 Spend % After Shift	47.8%	21.9%	103.3%	11.6%	0.3%	17.3%	41.3%
% of Total Pgm Spending	12.1%	4.6%	69.0%	13.5%	0.0%	0.8%	100.0%

Note: Table contains numbers representing differing time periods and cannot be directly compared:
[1] Original 3-year 2005-2007 Non-Residential Portfolio Plan budget included in Appendix 'A' of Decision No. 68488, February 23, 2006, that granted Interim Approval of the Non-Residential DSM programs.
[2] 12-month actual spending, March 2006 – February 2007, required to be reported in 13-month filing.
[3] Approximate 21-month period between NR Program approval and December 31, 2007, the end of the 2005 – 2007 budget period.

Examination of Table 12 reveals clearly that the NR Small program is not performing to the standards of the other programs. The savings of both kWh and kW are very low and the spending per kWh and kW saved are very high. Table 17 above indicates that spending on implementation of the program has been substantial at 103.3 percent of budgeted 3-year funds after budget shifting, but only 11.6 percent of budgeted incentives have been paid out. Indeed, incentive spending, MWh savings, and MW savings for the NR Small program were lower than for all other programs excepting the BOT and EIS programs. Table 17 numbers also imply that spending during the required one-year reporting period March 2006 through February 2007 was only 16.3 percent of the 3-year budget in spite of the fact that spending was heavily weighted with substantial implementation costs.

The NR Small program was implemented on March 30, 2006, for non-residential customers with a maximum monthly peak demand of 200 kW or less based on the past 12 months of billing history. It provides prescriptive incentives for these small non-residential customers for energy-efficiency improvements in lighting, HVAC, motors, and refrigeration applications. Funds in the amount of $890,000 were shifted from this program to the NR Existing program under authority granted by Decision No. 68488 to shift a maximum of 25 percent of budgeted funds from one program to another in the same sector (all Non-Residential programs). The funds were shifted from this program to the NR Existing program when it

[†††] $2,380,000 was shifted to the NR Existing Program from the NR Small Program ($890,000) and the NR New Program ($1,490,000) under authority granted by Decision No. 68488 to shift a maximum of 25 percent of budgeted funds from one program to another in the same sector (all Non-Residential programs).

became apparent that they would not be used by the NR Small program and they were needed for the NR Existing program.

It is clear to Staff that the program is not performing the way it should, and that substantial changes need to be made if the program is to be continued. It is clear also to APS that changes are needed as evidenced by the Company's application for material changes to the program included in this filing.

In the earlier section entitled Small Non-Residential Program Changes and Enhancements, Staff recommended that the Direct Install approach be adopted for the NR Small program. Staff believes that this approach will address many of the customer barriers to participation in the program and will result in adoption of energy-efficiency measures by this difficult-to-reach small business sector. Staff has also recommended that custom-efficiency measures and studies be made available to the NR Small program, and that APS redefine its NR Small program category, that now includes non-residential customer facilities with a maximum monthly peak demand of 200 kW or less based on the past 12 months of billing history, to non-residential customer facilities with a maximum monthly peak demand of 100 kW or less based on the past 12 months of billing history. This initiative would allow a sharper focus on a more homogeneous group of commercial customers. Staff believes these changes have the potential to reach the smaller commercial customers with cost-effective energy savings.

Staff believes the NR Small DSM program can be re-directed to effectively reach its target customer base, and that APS' non-residential customers in this 200 kW or less size category should have access to cost-effective DSM programs like other non-residential customers. Should the Commission approve Staff's recommendation for reclassification of the NR Small category to include customers of 100 kW or less, those current NR Small customers that fall within the 101 kW to 200 kW category would be shifted to the NR Existing program where the entire range of prescriptive measures, custom-efficiency measures, and studies would be available to them. For the remaining 100 kW or less NR Small customers, Staff has recommended the Direct Install approach to supplement the existing prescriptive measures, and has further recommended that custom-efficiency measures and studies also be made available to this group.

Based on the discussion above and in the section entitled Small Non-Residential Program Changes and Enhancements, and on the addition of the Direct Install component and its associated cost-effective measures to the NR Small program, Staff offers the following recommendations. If the Commission should choose to approve the overall basic concept of the Direct Install component for inclusion in the NR Small program, Staff recommends approval of APS' Small Non-Residential DSM program. If the Commission should choose to deny approval of the overall basic concept of the Direct Install component for inclusion in the program, Staff recommends APS' NR Small program be terminated immediately, and that budgeted NR Small funds be re-allocated to other Non-Residential programs and budget categories that are believed by APS to be most able to effectively use them. Staff believes the program would be further improved if other Staff-recommended enhancements are adopted regarding 1) removal of the 52 percent incentive cap, 2) incentives to property owners, 3) changes to study caps, 4) prescriptive measure results inclusion in custom incentives, 5) addition of new prescriptive measures and 6) re-alignment of customer size definitions for the NR Small and NR Existing programs. Staff's recommendation for approval of the program, however, is not contingent on approval of any or all of these other initiatives.

Non-Residential Building Operator Training Program

The following table summarizes NR BOT program budget and expenditure information as reported herein on Tables 1-7.

Table 18

Non-Residential Building Operator Training DSM Program Summary of Budgets and Spending

NR BOT Program	Planning & Admin.	Program Marketing	Program Implement	Rebates & Incentives	Train. & Tech. Asst.	Consumer Education	Total
Original Decision Budget[1]	$12,000	$9,000	$21,000	$0	$192,000	$6,000	$240,000
Spending Mar06- Feb07[2]	$1,578	$4,360	$10,931	$0	$24,183	$0	$41,051
Budget Shifting (out)	0	0	0	0	0	0	0
Budget After Shifting	$12,000	$9,000	$21,000	$0	$192,000	$6,000	$240,000
Spending thru Dec07[3]	$7,455	$15,783	$22,043	$0	$42,874	$0	$88,155
Dec07Spend % of Original	62.1%	175.4%	105.0%	0.0%	22.3%	0.0%	36.7%
Dec07 Spend % After Shift	62.1%	175.4%	105.0%	0.0%	22.3%	0.0%	36.7%
% of Total Pgm Spending	8.5%	17.9%	25.0%	0.0%	48.6%	0.0%	100.0%

Note: Table contains numbers representing differing time periods and cannot be directly compared:
[1] Original 3-year 2005-2007 Non-Residential Portfolio Plan budget included in Appendix 'A' of Decision No. 68488, February 23, 2006, that granted Interim Approval of the Non-Residential DSM programs.
[2] 12-month actual spending, March 2006 – February 2007, required to be reported in 13-month filing.
[3] Approximate 21-month period between NR Program approval and December 31, 2007, the end of the 2005 – 2007 budget period.

The NR BOT program got off to a running start immediately after implementation on March 15, 2006. It was the first of the Non-Residential programs implemented. The program provides training through a cooperative effort with the Electric League of Arizona. The BOT program was an existing offering of the Electric League of Arizona ("ELA") that was in operation prior to the Decision. It had been supported financially on an annual basis by APS in the past, but as part of APS' Non-Residential DSM program it is supported in a different manner by the Company. APS now provides incentives directly to the ELA intended to cover 50 percent of the tuition for APS customer participation in either the Building Operator Training ("BOT") session ($597.50 tuition subsidy) or the Facilities Maintenance Training ("FMT") session ($447.50 tuition subsidy) for each passing student.

The NR BOT program provides training incentives for building operators (managers) and facility maintenance technicians on energy-efficient building operating and maintenance practices. The training is part of ELA's Institute for Facility Management Education program and includes industry expert-provided training targeted to reach facility managers and building operators of medium to large commercial and industrial facilities. The ELA issues a certificate of completion for participants who successfully complete either of the two BOT courses: 1) Facility Maintenance Technician Training, or 2) Building Operator Training.

Staff believes that even though the program began rapidly after implementation, the number of students trained has not grown as expected, and the level of activity is, therefore, not at as high a level as planned. Indeed, the number of students in the last half of 2007 was at the lowest level since the six-month period during which implementation occurred:

Six-Mo. Period	BOT	FMT
2006 1st Half	9	0
2006 2nd Half	12	24
2007 1st Half	10	13
2007 2nd Half	6	7

Examination of Table 18 above shows that APS went over its budget for marketing expenses (paid to ELA to do the marketing), but Planning and Administration spending appear to be reasonable and Program Implementation spending was just over budget. The incentives for this program are partial tuition reimbursements and were actually budgeted in the Training and Technical Assistance category. $42,874 was spent on tuition subsidies program-to-date through December 2007 compared to a 3-year budget of $192,000.

Staff believes that spending for tuition subsidies at only 22.3 percent of budget is a problem, but the fact that the NR BOT program is losing momentum instead of gaining momentum is regarded as a much more serious problem. Staff had expected lifetime energy savings of 571,000 MWh and peak savings of 6.5 MW to result from the program operating for three years. Actual savings for the program over about 21 months of operations through 2007 have been recorded at about 9,000 MWh and 0.07 MW.

Staff is also concerned with the overrun of spending on marketing, particularly in light of the declining number of participants, indicating the marketing effort and dollars expended did not produce the intended results. For the first two years of the program, ELA had both marketed and administered the program. Staff questions whether APS is receiving the value it should receive from the marketing dollars placed with ELA. Examination of the July through December 2007 Semi-Annual Progress Report reports that APS has taken over the marketing of the program under the Solutions for Business banner beginning in 2008.

APS did not propose any other remedies to correct the course of the NR BOT program in the 13-month filing. Staff discussions with APS revealed that the format of the classes involving one day of class per week for six weeks was perceived as a problem for employers that found it difficult to have key employees away from work that many days.

Staff is aware that the BOT measures have been found to be cost-effective and that some savings have resulted from the program. However, Staff does not believe the program should be allowed to continue its current downward spiral in participation. It is possible that transferring the marketing activities to APS could be a positive change. It is also possible that changes to the classes could be made to shorten or reconfigure them, resulting in better acceptance by employers. Staff is reluctant to recommend such changes, however, because changes to the curriculum or the structure of the classes could be expensive or impossible to implement through the ELA since its programs are not targeted exclusively to APS, but to other utilities such as Salt River Project, as well. Although Staff believes that the program should not be allowed to continue in its present format, it is reluctant to pass up potential energy savings the classes could create in the future.

Staff also has some concern that the assumed link between BOT class participation and actual energy savings is not a hard and fast link. Indeed, some building managers and facility maintenance technicians would return to their facilities after training and implement positive operational changes, or recommend energy-efficiency measures to their management that would result in energy savings. However, it is possible that others may not. APS conducts other training classes within its NR Existing program that are not tied to direct energy savings, but that result in participants implementing other cost-effective measures within established APS DSM programs.

This leads Staff to believe that the BOT function should not be a separate DSM program, but should instead be an additional class offering within the NR Existing program funded with Training and Technical Assistance dollars in the budget for that program. In this format, APS could make necessary adjustments to the classes to make them more appealing to potential students. Costs for program administration and promotion would be folded in with the other NR Existing class offerings resulting in lower overall costs.

APS conducts a comprehensive series of education and training classes within its NR Existing program. The classes are limited to APS Non-Residential customers or trade allies, and NR Existing program incentives of 50 percent of the cost of the class are provided. Many of these classes fall within the Company's "Technology Series" that offers specialized one-day training classes on a monthly or more frequent basis and regularly attract participation of 25 to 100 students. Recent topics include 1) Motors, 2) Retro-Commissioning, 3) Lighting, and 4) Energy Study and Benchmarking. Upcoming topics for the Technology Series will include 1) Energy Information Services, 2) Energy Management for Hospitals, 3) Energy Management for the Hospitality Industry, 4) Energy Management for Compressed Air Applications, 5) Energy Tax Incentives, 6) Energy-Efficient Chillers, and 7) HVAC. Other training classes offered within the NR Existing program, but not as part of the Technology Series, are Certified Energy Management ("CEM") training and LEED training; both of which are multiple day classes that lead to student certifications. BOT training may fit well as an added offering within the NR Existing program outside of the one-day Technology Series classes.

Based on the fact that the NR BOT program is a small program that is demonstrating declining participation as a stand-alone DSM program; Staff recommends that the APS' Non-Residential Building Operator Training DSM program be denied approval; that the program be terminated as an APS Non-Residential DSM program immediately or as soon as contractual obligations allow; that the building operator training class concept may be transferred to the NR Existing program at APS' discretion; that APS provide an incentive of 50 percent of the cost of the class if BOT is continued as a class offering within the NR Existing program; that budgeted NR BOT funds be re-allocated to the Training and Technical Assistance budget category of the NR Existing program if BOT is continued as a class offering within the NR Existing program; or that budgeted NR BOT funds be re-allocated to other Non-Residential programs and budget categories that are believed by APS to be most able to effectively use them if APS chooses not to continue BOT within the NR Existing program.

Non-Residential Energy Information Services Program

The following table summarizes NR EIS program budget and expenditure information as reported herein on Tables 1-7.

Table 19

Non-Residential Energy Information Services DSM Program Summary of Budgets and Spending							
NR EIS Program	**Planning & Admin.**	**Program Marketing**	**Program Implement**	**Rebates & Incentives**	**Train. & Tech. Asst.**	**Consumer Education**	**Total**
Original Decision Budget[1]	$12,000	$7,500	$24,000	$240,000	$10,500	$6,000	$300,000
Spending Mar06- Feb07[2]	$12,813	$0	$24,521	$0	$0	$583	$37,917
Budget Shifting (out)	0	0	0	0	0	0	0
Budget After Shifting	$12,000	$7,500	$24,000	$240,000	$10,500	$6,000	$300,000
Spending thru Dec07[3]	$21,880	$0	$44,469	$3,447	$0	$583	$70,379
Dec07Spend % of Original	182.3%	0.0%	185.3%	1.4%	0.0%	9.7%	23.5%
Dec07 Spend % After Shift	182.3%	0.0%	185.3%	1.4%	0.0%	9.7%	23.5%
% of Total Pgm Spending	31.1%	0.0%	63.2%	4.9%	0.0%	0.8%	100.0%

Note: Table contains numbers representing differing time periods and cannot be directly compared:
[1] Original 3-year 2005-2007 Non-Residential Portfolio Plan budget included in Appendix 'A' of Decision No. 68488, February 23, 2006, that granted Interim Approval of the Non-Residential DSM programs.
[2] 12-month actual spending, March 2006 – February 2007, required to be reported in 13-month filing.
[3] Approximate 21-month period between NR Program approval and December 31, 2007, the end of the 2005 – 2007 budget period.

The EIS program is the last of the six Non-Residential programs to be implemented by APS. The program is considered to be in the ramp-up phase of its implementation. At the end of 2007, APS had five customers participating in the program and 14 meters are gathering data to be utilized on the web-based energy information system. The meters were not in service until fall of 2007, and no incentives were paid until late in the fourth quarter of 2007. For this reason, there are no savings shown on Table 11. NR EIS is one of the smallest of APS' Non-Residential programs. Table 6 shows the EIS program to be second smallest in terms of budgeted funds at

$300,000, and Table 7 shows the program to be the smallest program in terms of program spending through December 2007 at $70,379.

Table 19 indicates that spending during the required one-year reporting period March 2006 through February 2007 was over budget for both the Planning and Administration and Program Implementation budget categories, but no other expenses were paid other than a small amount for Consumer Education. Spending through December 2007, also shown on Table 19, shows a continuation of the same spending pattern but does reflect the first incentive payments. Staff was told by APS that implementation of the program was delayed because priorities and resources were assigned to larger programs, and it took APS a long time to locate and engage an appropriate implementation contractor for this program. Because of the specialized nature of the NR EIS program, APS decided to engage a separate implementation contractor just for this program. In the last quarter of 2006, Automated Energy was selected through a competitive RFP process to provide turn-key implementation services for the program.

The NR EIS program was made available on November 16, 2006, to large non-residential customers having a maximum monthly peak demand over 200 kW based on the past 12 months of billing history. The program is intended to save these large non-residential customers energy by providing them tools to gain a better understanding and control of their facilities' electric usage. Participating customers monitor their electric usage through a web-based energy information system that allows them to receive historical (previous day) 15 minute usage and demand graphics. The information can be used to improve or monitor energy usage patterns, reduce energy use, reduce demands during on-peak periods, and better manage overall energy operations. APS provides an incentive of 75 percent of the cost for the needed metering equipment and also makes its implementation contractor personnel available to educate and assist customers in interpreting EIS data and in planning usage changes that will effectively result in energy savings.

As originally implemented, the program was intended to install metering equipment at a single metered site having a monthly billed demand above 200 kW. The incentive was set at 75 percent of incremental cost with a maximum incentive cap of $1,000 per customer. Early experience with the program revealed that many potential participants have multiple meters having a monthly billed demand over 200 kW. The company received feedback from one customer indicating the $1,000 cap helped it to install a single EIS metering point, but with 300 meters with loads over 200 kW, it was not very helpful for them to capture data from only one of their metering points. Consequently, in this 13-month filing, APS proposed and Staff recommended changes to the program to accommodate customers with multiple meters and/or multiple sites. These changes and Staff's recommendations for program changes are discussed in the "Energy Information Services Incentive/Budget Enhancement" sub-section of the "Budget and Incentive Changes and Enhancements" main section.

Staff continues to believe that the NR EIS DSM program has potential to be a successful DSM program, but that late implementation has precluded it from having an opportunity to demonstrate energy-efficiency savings to date. Staff also believes that APS' roll out of smart meters may impact the services the program now provides. In the future, the program may need to evolve to emphasize the training services provided by the program rather than the equipment installation and access to the data services. The equipment and data aspects of the program could become available to a large number of customers through advanced metering devices creating a need to educate a much greater number of customers on how to effectively read and interpret their electric usage data and to make changes based on that data to achieve energy-efficiency savings.

Based on the discussion above and in the section entitled Energy Information Services Incentive/Budget Enhancement, Staff recommends approval of APS' Non-Residential Energy Information Services DSM program. Staff believes its recommendation to increase the incentive cap from $1,000 per customer to $12,000 per customer, to accommodate multiple meters and/or multiple sites, will add to the program's effectiveness. However Staff believes the program could achieve its intended purpose and produce energy-efficiency savings regardless. Staff's recommendation for approval of the NR EIS program is, therefore, not contingent on approval of any Staff-recommended program changes.

SUMMARY OF STAFF RECOMMENDATIONS

Staff recommends that:

1. APS continue to track DSM applications resulting from studies for which incentives have been paid, and report the semi-annual and cumulative results of its program-to-date tracking efforts in its DSM Semi-Annual Progress Reports,

2. APS' proposal, that all Non-Residential Existing program applications received for approved DSM measures be paid an incentive with no annual budget ceiling enforced on spending for this program, be denied,

3. the existing 52 percent limitation on combined Rebates and Incentives as a percentage of overall Non-Residential DSM spending in all existing Non-Residential programs be removed beginning in the 2008 budget year,

4. the $1,000,000 limitation on APS recovery of Administration and Planning expenses related to the Non-Residential DSM programs be removed,

5. Planning and Administration costs for any given Non-Residential program, such as NR New, not exceed 10 percent of the total program budget for the budgeting period, such as 2005 through 2007 or 2008 through 2010,

6. if building owners install DSM energy-efficiency measures that would qualify for APS incentives if made by the APS customer/tenant, the building owner be eligible to qualify for the incentive, and APS be authorized to pay such incentives to the building owner,

7. the cap on incentive payments for all technical assistance study incentives be applied to all customers on a per-study basis; and that no per-customer, per-facility, or annual limit apply to these incentives other than the customer's overall annual program cap for the program through which the study is undertaken,

8. the incentive maximum for a Retro-commissioning Study be increased from 50 percent of the cost of the study up to a maximum of $10,000, to 50 percent of the cost of the study up to a maximum of $20,000, and that the $20,000 cap be applied on a per-study basis,

9. APS be granted the authority to shift budgeted funds within a Commission-approved DSM program, without obtaining Commission approval, either between budget categories within a DSM program or between sub-programs, measures, or measure groups within a DSM program; unless such funding shifts would violate another budget-shifting parameter or limitation on budget flexibility ordered by the Commission,

10. in cases where an integrated building energy simulation identifies energy savings opportunities from both custom-efficiency and prescriptive measures, the prescriptive measures be allowed to be combined into the custom-efficiency application, the combination be treated as a single custom-efficiency measure, and a custom-efficiency incentive be paid based upon the combined energy savings,

11. the Non-Residential Energy Information Services annual incentive cap of $1,000 per customer be removed and be reset to 75 percent of incremental cost up to a maximum of $12,000 per customer per year; that NR EIS incentives be paid only on meters having a monthly billed demand over 100 kW in the past 12 months of billing history; and that only meter costs and one-time set-up charges be included in the incremental cost from which the incentive is calculated,

12. the custom-efficiency incentive of $0.110 per annual kWh saved be reduced to $0.105 per annual kWh saved on July 1, 2009, and be further reduced to $0.100 per annual kWh saved on January 1, 2011, such reduction to be applied in all APS DSM programs to which the custom-efficiency incentive applies,

13. APS increase its efforts to work with other governmental and private entities involved with energy efficiency, and find ways to work collaboratively with them to evolve its DSM programs over time to complement their activities rather than to duplicate or compete with those activities, with goals to maximize energy efficiency while minimizing APS incentives to program participants and costs to all APS ratepayers that fund APS DSM programs,

14. APS continually research and monitor other energy-efficiency rebates and incentives, including tax credits, that may be available to its Non-Residential DSM program

participants throughout its service territory; and that the Company limit its incentive payments to program participants to ensure that the sum of all known monetary incentives, either paid or available to APS program participants from other entities for the same measure, be limited to APS' established measure cap, such as 50 percent or 75 percent of incremental cost, unless a different cap is ordered by the Commission,

15. the Decision No. 68488 requirement that APS provide copies of all Non-Residential DSM program marketing materials for Staff review, within 30 days of the development of each piece, be removed; and that a sample of such materials developed during each six-month period be included in APS' Semi-Annual DSM Progress Reports instead,

16. within 90 days of a decision in this matter, APS submit a "Marketing Progress Report" to the Commission in Docket Control comparing its actual Non-Residential DSM program marketing activities and spending to the Marketing and Communications Plan submitted to Staff on May 25, 2006, in compliance with Decision No. 68488,

17. APS 1) determine if it might be able to raise customer energy-efficiency awareness and further promote its Non-Residential DSM programs through the use of additional marketing efforts and activities, 2) review its Non-Residential programs to determine if there are areas where stepped-up marketing activities might either fully or partially displace the use of rebates and incentives to persuade customers to participate in its Non-Residential DSM programs, and 3) consider if changes and increases in its marketing or customer education activities might increase customer awareness of incentive programs or loans for energy-efficiency activities available from entities other than APS. The results of these three studies should be submitted to the Commission as part of APS' Marketing Progress Report,

18. APS provide a comprehensive description of its Program Marketing activity and the dispersion of that activity over the time period 2005 through 2007 and its relationship to Program Marketing expenditures 2005 through 2007, and include 1) a thorough explanation of the time period of marketing services rendered for each payment of Program Marketing expenses, 2) a thorough explanation of the extraordinary expenditures for Program Marketing during November and December of 2007 including what services were paid for, when such services were or will be received, and to whom payment was made, and 3) a thorough explanation of the extraordinary expenditures for Rebates and Incentives during November and December of 2007 and what incentives were paid, when such incentives were applied for, when they were installed, and other relevant details that might help Staff understand these payments. The requested data and explanations should be submitted to the Commission as part of its Marketing Progress Report,

19. in its DSM Semi-Annual Progress Reports, APS continue to report its MWh savings resulting from DSM measures installed during the reporting period in terms of "lifetime" MWh savings over the expected life of the measures; and additionally, that it report MWh savings for the six-month reporting period; and that it report both lifetime and reporting period MWh savings by program not only for the period, but year-to-date and DSM program-to-date,

20. in its DSM Semi-Annual Progress Reports, APS add program spending by budget category, and peak load MW savings; both year-to-date and DSM program-to-date, to supplement the 6-month reporting period data that the Company is currently filing,

21. in its DSM Semi-Annual Progress Reports, APS report environmental savings in terms of Sulphur Oxide (SOx), Nitrogen Oxides (NOx), Carbon Dioxide (CO2), Particulate Matter (PM10), and Water (H2O); such savings to be reported both for measure lifetime savings from DSM measures installed during the reporting period and for savings during the six-month reporting period only; and that such savings be reported for the reporting period, year-to-date, and program-to-date,

22. if the Direct Install approach is adopted for either the NR Small or Schools program or both, the following measures be available to those programs: 1) T8 Lighting Retrofits, 2) Screw-in CFL Retrofits, 3) Hard-wired CFL Retrofits, 4) Exit Sign Retrofits, 5) Occupancy Sensors on Lighting, 6) De-Lamping, 7) Refrigerated Case Evaporator Fan Controls, 8) Refrigerated Novelty Case Controls, 9) Anti-Sweat Heater ("ASH") Controls, 10) Refrigerated Case Fan Motor Retrofits, 11) Occupancy Sensor Controls on Vending Machines,

23. if the Direct Install approach is adopted for either the NR Small or Schools program or both, the "Integrated Refrigerated Case Controls and Motor Retrofits" measure shall not be included in APS' Direct Install programs at this time,

24. the Direct Install approach be adopted for the NR Small program, and that those APS-proposed Direct Install measures passing Staff's most recent Societal Cost Test be included in the program; that the program be implemented using premise size rather than customer size as the basis for eligibility; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures be capped at 90 percent of incremental cost and APS per-kWh-saved incentive rates for each Direct Install measure be re-calculated to conform to this restriction,

25. if the Direct Install approach is approved, APS establish a separate reporting category in the DSM Semi-Annual Progress Report within each program section to which Direct Install applies in which to include enhanced reporting of Direct Install activities including but not limited to: 1) active number of contractors and contractor identification, 2) number of Direct Install jobs completed, 3) dollar value of the

Direct Install incentives paid to contractors, 4) dollar value of Direct Install jobs paid by the customer, 5) number of each Direct Install measure for which incentives were paid, 6) number of instances when incentives were reduced because of eligibility for incentives paid by other entities, 7) spending and savings numbers attributable to Direct Install for the period and year-to-date and program-to-date, 8) descriptions of the types of businesses participating in Direct Install with frequencies of participation for each type, and 9) an estimation of the reduced marketing or other program or administration costs compared to those that would have been expended if the measures were implemented through a non-Direct Install program,

26. the Custom-Efficiency measures and Studies available to some other APS Non-Residential programs be made available to the NR Small program; and that the $150,000 per year annual program cap for the sum of all incentives paid to a single customer in the NR Small program remain at $150,000 per customer per budget year; that Custom-Efficiency and Study incentives be included in that cap; and that the cap continue to be applied based on customer size,

27. APS redefine its Small Non-Residential program category to include non-residential customer facilities with a maximum monthly peak demand of 100 kW or less based on the past 12 months of billing history, and that the Company correspondingly redefine its Non-Residential Existing category to include APS non-residential customer facilities with a maximum monthly peak demand greater than 100 kW based on the past 12 months of billing history,

28. APS redefine its Non-Residential New program category to include non-residential customers of all sizes that are constructing new facilities or are planning major renovation projects, and that annual per-customer per-program budget caps break between 100 kW and below ($150,000 per year cap) and above 100 kW ($300,000 per year cap),

29. APS re-allocate its DSM program budget for the 2008 through 2010 planning years to be consistent with any re-definition(s) of the Small Non-Residential, Non-Residential Existing, and Non-Residential New program customer size categories that may be ordered herein or any other changes ordered herein; and that APS either inform Staff that no reallocation is necessary, or file an update to the budget portion of its "Portfolio Plan Update 2008 – 2010," filed in Docket No. E-01345A-07-0712, to reflect such re-definition(s) or other changes not later than 30 days after a Decision in this matter,

30. if the Commission approves Direct Install for the Small Non-Residential DSM program, the Direct Install approach be made available also for schools of all sizes, and that those APS-proposed Direct Install measures passing Staff's Societal Cost Test be included in the program; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures

be capped at 90 percent of incremental cost, and APS per-kWh-saved incentive rates for these measures be re-calculated to conform to this restriction,

31. seven of APS' nine proposed new prescriptive DSM measures identified as the 1) Hard-wired CFL measure, 2) Fluorescent Induction Lighting measure, 3) Cold Cathode Lighting measure, 4) Reduced Lighting Power Density measure, 5) Package Terminal Air-Conditioners/Heat Pumps measure, 6) Economizers measure, and 7) High-Performance Glazing measure, be adopted,

32. the Commission deny approval of the Water-Source Heat Pump measure that would provide incentives to encourage customers to replace or retrofit heat pumps on existing WSHP systems with high-efficiency water-source heat pumps,

33. no incentive be paid for the Cool Roofs measures for new or replacement roofs at this time, but that APS encourage its customers to install a highly-reflective coated foam or membrane roof and include relevant cool roof information in its DSM customer educational materials,

34. the Commission deny approval of the Cool Roof measure that would provide incentives to encourage customers to apply a highly reflective elastomeric or similar coating to various existing roofing materials,

35. APS' Non-Residential Schools DSM program be approved,

36. APS' Non-Residential Existing Facilities DSM program be approved,

37. APS' Non-Residential New Construction and Major Renovation DSM program be approved,

38. if the Commission should choose to approve the overall basic concept of the Direct Install component for inclusion in the NR Small program, approval of APS' Small Non-Residential DSM program,

39. if the Commission should choose to deny approval of the overall basic concept of the Direct Install component for inclusion in the program, APS' NR Small program be terminated immediately, and that budgeted NR Small funds be re-allocated to other Non-Residential programs and budget categories that are believed by APS to be most able to effectively use them,

40. denial of the APS' Non-Residential Building Operator Training DSM program; that the program be terminated as an APS Non-Residential DSM program immediately or as soon as contractual obligations allow; that the building operator training class concept may be transferred to the NR Existing program at APS' discretion; that APS provide an incentive of 50 percent of the cost of the class if BOT is continued as a

class offering within the NR Existing program; that budgeted NR BOT funds be re-allocated to the Training and Technical Assistance budget category of the NR Existing program if BOT is continued as a class offering within the NR Existing program; or that budgeted NR BOT funds be re-allocated to other Non-Residential programs and budget categories that are believed by APS to be most able to effectively use them if APS chooses not to continue BOT within the NR Existing program, and

41. APS' Non-Residential Energy Information Services DSM program be approved.

EXHIBIT 1

APS Non-Residential DSM Programs

Incentive Summary

Exhibit 26
Non-Residential Incentive Summary

Measure Description	Minimum Qualifying Criteria	Incentive Level ($)
[illegible]		
Replace T12 Systems and Magnetic Ballasts with T8 Systems and Electronic Ballasts	—	$5.00/lamp $8.00/lamp (premium)
Replace HID Systems with Linear Fluorescent T8 and T5 Systems	—	$75 - $200/fixture
Induction Lighting *	—	$150/fixture
Energy Efficient Integral CFL	—	$1.75/lamp
Energy Efficient Hardwired CFL*	—	$15 - $20/fixture
Replace Incandescent and CFL Exit Signs	—	$25/fixture
Install Occupancy Sensors on Lighting Fixtures	—	$0.12/kW connected
Daylighting Controls	—	$0.12/kW connected
Delamping*	—	$5.00/lamp
Cold Cathode*	—	$3.50/lamp
Reduced Lighting Power Density ("LPD")*	Must exceed ASHRAE LPD	$350/kW reduced
[illegible]		
Install Energy-Efficient Water-Cooled Chillers*	Minimum IPLV per ASHRAE 90.1-2004	$7/ton (<300T) $10/ton (≥300T) + $300/ton/IPLV increment
Install Energy-Efficient Air-Cooled Chillers	Minimum IPLV per ASHRAE 90.1-2004	$7/ton (<150T) $10/ton (≥150T) +$300/ton/IPLV increment
Air-Cooled Packaged AC/HP – Single Phase, SEER Rated*	14 SEER	$50 - $150/ton
Air-Cooled Packaged AC/HP – Three Phase, EER Rated*	11.1 EER	$50/ton (<11.25T) 25$/ton (>11.25T) + 50/ton/IPLV
PTAC/HP*	Minimum EER per ASHRAE 90.1-2004	$45/ton + $15/ton/EER increment
HVAC Quality Installation (Non-Residential)	—	Phase 1: $180/unit Phase 2: $225/unit + $15/ton
System Testing and Repair (Non-Residential)	—	Phase 1: $120/unit Phase 2 (RCAF): $120/unit + $15/ton Phase 2 (DS): $225/unit + $15/ton Phase 2 (Econ): $75/unit
Programmable Thermostats		$50/unit
Water-Source Heat Pumps*	Minimum EER per ASHRAE 90.1-2004	$25/ton + $15/ton/EER increment
Economizers*		$15/ton
[illegible]		
Cool Roofs*	Min. initial reflectance of 0.7 and minimum initial emittance of 0.75	$0.15 - $0.25/sq.ft.
High Performance Glazing*	Max. U-Value of 0.495 Max. SHGC of 0.49	$0.50/sq.ft.
[illegible]		
Open Drip-Proof (ODP) Motors; 1200 - 3600 RPM	NEMA/CEE minimum efficiencies for premium motors	$1.50 - $10/HP

Measure Description	Minimum Qualifying Criteria	Incentive Level ($)
Totally Enclosed Fan-Cooled (TEFC) Motors; 1200 - 3600 RPM	NEMA/CEE minimum efficiencies for premium motors	$1.50 - $10/HP
VSD's	—	$50/HP
[illegible]		
Anti-Sweat Heater Controls	—	$200/unit
High Efficiency Evaporator Fan Motors	—	$10/motor
High Efficiency Reach-in Refrigerators and Freezers	—	$75/unit
High Efficiency Ice Makers	—	$45/unit
Strip Curtains and Night Covers	—	Strip curtain: $5/unit Night cover: $10/unit
Occupancy Sensor Vending Machine and Reach-in Cooler Controls	—	Refrigerated Case: $100/unit Snack Machine $25/unit
[illegible]		
Custom (New Construction)	—	$0.11/annual kWh savings or 50% of incremental cost
Custom (Existing)	—	$0.11/annual kWh savings or 50% of incremental cost
Retro-commissioning*	—	50% of cost up to $20,000 per project
Commissioning*	—	50% of cost up to $10,000 per project
Design Assistance and Feasibility Studies*	—	50% of cost up to $10,000 per project
[illegible]		
Replace T12 Systems & Magnetic Ballasts w T8 Systems & Electronic Ballasts*	—	$0.15/kWh
Energy Efficient Integral CFL *	—	$0.02/kWh
Energy Efficient Hardwired CFL) *	—	$0.15/kWh
Replace Incandescent and CFL Exit Signs*	—	$0.15/kWh
Install Occupancy Sensors on Lighting Fixtures*	—	$0.15/kWh
Delamping and Replace 4-lamp T12 Systems with T8 Systems*	—	$0.12/kWh
Occupancy Sensor Vending Machine and Reach-in Cooler Controls*	—	$0.12/kWh
Integrated Refrigerated Case Control and Motor Retrofit*	—	$0.20/kWh
Refrigerated Case Evaporator Fan Controls*	—	$0.20/kWh
Refrigerated Case Novelty Controls*	—	$0.20/kWh
Anti-sweat Heater Controls*	—	$0.20/kWh
Evaporator Fan Motor Retrofit*	—	$0.20/kWh

** New/Changed Measure. See Appendix A for Current Program Incentives.*

EXHIBIT 2

APS Non-Residential DSM Programs

Measure to Program Matrix

13 Month Filing Data Request
Response 6 -1 (a - d)
Measure to Program Comparison

		Measure Type	ROB/New or Retrofit	Cost	Large Existing	New Construction	Small Business	Schools	EIS	BOT
Existng Measures										
1	101a	Energy-Efficient T8 Fluorescent Fixtures (Retrofit)	Retrofit	Full	x		x	x		
2	101a(NC)	**Energy-Efficient T8 Fluorescent Fixtures (New Const.)	NA	NA						
3	102a	Replace HID with T8 T5 Systems	Retrofit	Full	x		x	x		
4	103a	Energy-Efficient Integral CFL's	Retrofit	Full	x		x	x		
5	104	Energy-Efficient Exit Signs	Retrofit	Full	x		x	x		
6	105	Occupancy Sensors	Retrofit	Full	x	x	x	x		
7	106	Energy-Efficient Lighting Controls	Retrofit	Full	x	x	x	x		
8	107	Delamping	Retrofit	Full	x		x	x		
9	108a	Energy-Efficient Outdoor Lighting CFLs	Retrofit	Full	x	x	x	x		
10	201	Water-Cooled Chillers	ROB/New	Incr	x	x	x	x		
11	202	Air-Cooled Chillers	ROB/New	Incr	x	x	x	x		
12	203c	Energy-Efficient Air Conditioners - Pkg. & Split	ROB/New	Incr	x	x	x	x		
13	203d	Energy-Efficient Air Conditioners - Pkg. & Split	ROB/New	Incr	x	x	x	x		
14	203e	Energy-Efficient Heat Pumps - Pkg. & Split	ROB/New	Incr	x	x	x	x		
15	203f	Energy-Efficient Air Conditioners - Pkg. & Split	ROB/New	Incr	x	x	x	x		
16	206	HVAC Quality Installation	Retrofit/New	Full	x	x	x	x		
17	207	System Testing & Repair	Retrofit	Full	x		x	x		
18	208	Programmable Thermostats	Retrofit/New	Full	x	x	x	x		
19	401	Energy-Efficient Motors - Open Drip-Proof	ROB/New	Incr	x	x	x	x		
20	401	Energy-Efficient Motors - TECF 1200-3600 RPM	ROB/New	Incr	x	x	x	x		
21	402	Variable Speed Drives	ROB/New	Incr	x	x	x	x		
22	501	Refrigeration - Anti-Sweat Heater Controls	Retrofit/New	Full	x	x	x	x		
23	502	Refrigeration - Evaporative Fan Motors (New/ROB)	ROB/New	Incr	x	x	x	x		
24	502	Refrigeration - Evaporative Fan Motors (Retrofit)	Retrofit	Full	x		x	x		
25	503	Refrigeration - Reach-in Refrigerators & Freezers	ROB/New	Incr	x	x	x	x		
26	504	Refrigeration - High-Efficiency Ice Makers	ROB/New	Incr	x	x	x	x		
27	505	Refrigeration - Strip Curtains/Night Covers	Retrofit/New	Full	x	x	x	x		
28	506	Refrigeration - Occupancy Sensor/Vending/Cooler Ctls.	Retrofit/New	Full	x	x	x	x		
29	801	Custom-Efficiency Measures - New Construction	New	Incr		x		x		
30	801	Custom-Efficiency Measures - Existing Facilities	Retrofit	Full	x			x		
31	803	Retro-Commissioning	Retrofit	Full	x			x		
32	902	Energy Information Services	Retrofit	Full					x	
33	903	Building Operator Training	Retrofit	Full						x
Proposed New Non-Residential DSM Measures:										
34	102b	Fluorescent Induction Lighting	Retrofit	Full	x		x	x		
35	103b	Hard-wired CFL Fixtures	Retrofit	Full	x		x	x		
36	109	Cold Cathode Lamps	Retrofit	Full	x		x	x		
37	111	Lighting Power Density	New	Incr		x	x	x		
38	204	Package Terminal Air Conditioning & Heat Pumps	ROB/New	Incr	x	x	x	x		
39	209	Water-Source Heat Pumps	ROB/New	Incr	x	x	x	x		
40	210	Economizers	ROB/New	Incr	x	x	x	x		
41	301a	Cool Roofs - Retrofit	ROB	Incr	x		x	x		
42	301b	Cool Roofs - New Construction	New	Incr		x	x	x		
43	302	High Performance Glazing	Retrofit/New	Incr	x	x	x	x		
Proposed Modified Non-Residential "Direct-Install" DSM Measures:										
44	101a(SB)	Energy-Efficient T8 Fluorescent Fixtures	Retrofit	Full			x	*		
45	103a(SB)	Energy-Efficient Integral CFL's	Retrofit	Full			x	*		
46	103b(SB)	Hard-wired CFL Fixtures	Retrofit	Full			x	*		
47	104(SB)	Energy-Efficient Exit Signs	Retrofit	Full			x	*		
48	105(SB)	Occupancy Sensors	Retrofit	Full			x	*		
49	107(SB)	Delamping	Retrofit	Full			x	*		
50	506(SB)	Refrigeration - Vending Machine Controls	Retrofit	Full			x	*		
51	507a(SB)	Refrigeration - Integrated Controls & Motor Retrofit	Retrofit	Full			x	*		
52	507b(SB)	Refrigeration - Evaporative Fan Controls	Retrofit	Full			x	*		
53	507c(SB)	Refrigeration - Novelty Case Controls	Retrofit	Full			x	*		
54	507d(SB)	Refrigeration - ASH Door Controls	Retrofit	Full			x	*		
55	507e(SB)	Refrigeration - Evaporative Fan Motor Retrofit	Retrofit	Full			x	*		
	*	Direct Install is available to Schools that qualify under the Small Business criteria (aggregrated load ≤ 100 kW)								
	**	This measure no longer applies since New Construction now uses Power Density measure.								

BEFORE THE ARIZONA CORPORATION COMMISSION

MIKE GLEASON
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
KRISTIN K. MAYES
Commissioner
GARY PIERCE
Commissioner

IN THE MATTER OF THE APPLICATION OF THE ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF MODIFICATIONS AND FINAL APPROVAL OF ITS NON-RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS	DOCKET NO. E-01345A-05-0477 DECISION NO. __________ <u>ORDER</u>

Open Meeting
To Be Determined
Phoenix, Arizona

BY THE COMMISSION:

<u>FINDINGS OF FACT</u>

1. Arizona Public Service Company ("APS" or the "Company") is certificated to provide electric service as a public service corporation in the State of Arizona.

INTRODUCTION

2. On March 26, 2007, APS made two similar but separate filings ("13-month filing") to fulfill obligations arising from earlier Commission Decisions relating to the Company's portfolio of Non-Residential and Residential demand-side management ("DSM") programs and activities. The Company was required to provide the Commission with specific information reflecting 12 months of actual experience with its DSM programs and to make its filing(s) within 13 months of Decision No. 68488 issued on February 23, 2006.

3. The non-residential component of the DSM 13-month filing was made in this docket to provide the Commission with additional information about the Company's Non-

Residential DSM programs and to request final Commission approval for those programs as required by Decision No. 68488. In this filing, the Company also requested modifications to some of its Non-Residential DSM programs. This non-residential component of APS' 13-month filing is the subject of this item and is the final remaining component of the Company's 13-month filing requiring Commission action.

4. Earlier, the Commission acted on the other components of APS' 13-month filing. On August 28, 2007, the Commission rendered Decision No. 69879 in response to an APS application received on June 18, 2007, for expedited approval of certain time-sensitive initiatives contained in its 13-month filings. On December 4, 2007, the Commission rendered Decision No. 70033 in response to the residential components of the Company's 13-month filing.

DISCUSSION

5. Staff had recommended interim approval of the non-residential portion of APS' Portfolio Plan programs because of a lack of certainty and specificity in some areas of APS' Portfolio Plan application. In response to Staff discovery on many issues, APS indicated that it had provided all available detail to Staff. However, because the programs were new, there were still details that had not yet been established. APS' plan was to hire implementation contractors to establish remaining details regarding the Non-Residential DSM programs and to then have the same contractors implement the programs.

6. Staff believed that the benefits of moving forward with the Non-Residential programs at that time with a recommendation for interim approval outweighed the benefits of waiting until more information became available. In this manner, Staff believed actual savings from these programs would be realized earlier. In Decision No. 68488, February 23, 2006, the Commission ordered interim approval of the Non-Residential programs and further established APS' 13-month filing obligations to provide needed program details and to request final approval for the programs.

7. Staff believes the 13-month filing has provided an opportunity to make needed adjustments and changes to the Non-Residential programs based on actual experience with the programs. Staff's analysis of APS' Non-Residential DSM 13-month filing includes: 1)

determination of APS compliance with its 13-month filing requirements, 2) Non-Residential DSM program budget considerations, 3) Non-Residential DSM program changes and improvements based on actual experience with the programs, 4) evaluation of proposed new Non-Residential DSM program measures, 5) Societal Cost Test analysis of all existing and new Non-Residential DSM measures, 6) examination and evaluation of actual Non-Residential DSM program results including kW and kWh savings, and 7) recommendations for final approval or non-approval of APS' six Non-Residential DSM programs.

8. Staff has made 41 recommendations regarding APS' Non-Residential DSM programs.

STAFF RECOMMENDATIONS

9. Staff has recommended that:

a) APS continue to track DSM applications resulting from studies for which incentives have been paid, and report the semi-annual and cumulative results of its program-to-date tracking efforts in its DSM Semi-Annual Progress Reports,

b) APS' proposal, that all Non-Residential Existing program applications received for approved DSM measures be paid an incentive with no annual budget ceiling enforced on spending for this program, be denied,

c) the existing 52 percent limitation on combined Rebates and Incentives as a percentage of overall Non-Residential DSM spending in all existing Non-Residential programs be removed beginning in the 2008 budget year,

d) the $1,000,000 limitation on APS recovery of Administration and Planning expenses related to the Non-Residential DSM programs be removed,

e) Planning and Administration costs for any given Non-Residential program, such as NR New, not exceed 10 percent of the total program budget for the budgeting period, such as 2005 through 2007 or 2008 through 2010,

f) if building owners install DSM energy-efficiency measures that would qualify for APS incentives if made by the APS customer/tenant, the building owner be eligible to qualify for the incentive, and APS be authorized to pay such incentives to the building owner,

g) the cap on incentive payments for all technical assistance study incentives be applied to all customers on a per-study basis; and that no per-customer, per-facility, or annual limit apply to these incentives other than the customer's overall annual program cap for the program through which the study is undertaken,

h) the incentive maximum for a Retro-commissioning Study be increased from 50 percent of the cost of the study up to a maximum of $10,000, to 50 percent of the cost of the study up to a maximum of $20,000, and that the $20,000 cap be applied on a per-study basis,

i) APS be granted the authority to shift budgeted funds within a Commission-approved DSM program, without obtaining Commission approval, either between budget categories within a DSM program or between sub-programs, measures, or measure groups within a DSM program; unless such funding shifts would violate another budget-shifting parameter or limitation on budget flexibility ordered by the Commission,

j) in cases where an integrated building energy simulation identifies energy savings opportunities from both custom-efficiency and prescriptive measures, the prescriptive measures be allowed to be combined into the custom-efficiency application, the combination be treated as a single custom-efficiency measure, and a custom-efficiency incentive be paid based upon the combined energy savings,

k) the Non-Residential Energy Information Services annual incentive cap of $1,000 per customer be removed and be reset to 75 percent of incremental cost up to a maximum of $12,000 per customer per year; that NR EIS incentives be paid only on meters having a monthly billed demand over 100 kW in the past 12 months of billing history; and that only meter costs and one-time set-up charges be included in the incremental cost from which the incentive is calculated,

l) the custom-efficiency incentive of $0.11 per annual kWh saved be reduced to $0.105 per annual kWh saved on July 1, 2009, and be further reduced to $0.10 per annual kWh saved on January 1, 2011, such reduction to be applied in all APS DSM programs to which the custom-efficiency incentive applies,

m) APS increase its efforts to work with other governmental and private entities involved with energy efficiency, and find ways to work collaboratively with them to evolve its DSM programs over time to complement their activities rather than to duplicate or compete with those activities, with goals to maximize energy efficiency while minimizing APS incentives to program participants and costs to all APS ratepayers that fund APS DSM programs,

n) APS continually research and monitor other energy-efficiency rebates and incentives, including tax credits, that may be available to its Non-Residential DSM program participants throughout its service territory; and that the Company limit its incentive payments to program participants to ensure that the sum of all known monetary incentives, either paid or available to APS program participants from other entities for the same measure, be limited to APS' established measure cap, such as 50 percent or 75 percent of incremental cost, unless a different cap is ordered by the Commission,

o) the Decision No. 68488 requirement that APS provide copies of all Non-Residential DSM program marketing materials for Staff review, within 30 days of the development of each piece, be removed; and that a sample of such materials developed during each six-month period be included in APS' Semi-Annual DSM Progress Reports instead,

p) within 90 days of a decision in this matter, APS submit a "Marketing Progress Report" to the Commission in Docket Control comparing its actual Non-Residential DSM program marketing activities and spending to the Marketing and Communications Plan submitted to Staff on May 25, 2006, in compliance with Decision No. 68488,

q) APS 1) determine if it might be able to raise customer energy-efficiency awareness and further promote its Non-Residential DSM programs through the use of additional marketing efforts and activities, 2) review its Non-Residential programs to determine if there are areas where stepped-up marketing activities might either fully or partially displace the use of rebates and incentives to persuade customers to participate in its Non-Residential DSM programs, and 3) consider if changes and increases in its marketing or customer education activities might increase customer awareness of incentive programs or loans for energy-efficiency activities available from entities other than APS. The results of these three studies are to be submitted to the Commission as part of APS' Marketing Progress Report,

r) APS provide a comprehensive description of its Program Marketing activity and the dispersion of that activity over the time period 2005 through 2007 and its relationship to Program Marketing expenditures 2005 through 2007, and include 1) a thorough explanation of the time period of marketing services rendered for each payment of Program Marketing expenses, 2) a thorough explanation of the extraordinary expenditures for Program Marketing during November and December of 2007, including what services were paid for, when such services were or will be received, and to whom payment was made, and 3) a thorough explanation of the extraordinary expenditures for Rebates and Incentives during November and December of 2007, and what incentives were paid, when such incentives were applied for, when they were installed, and other relevant details that might help Staff understand these payments. The requested data and explanations are to be submitted to the Commission as part of APS' Marketing Progress Report,

s) in its DSM Semi-Annual Progress Reports, APS continue to report its MWh savings resulting from DSM measures installed during the reporting period in terms of "lifetime" MWh savings over the expected life of the measures; and additionally, that it report MWh savings for the six-month reporting period; and that it report both lifetime and reporting period MWh savings by program not only for the period, but year-to-date and DSM program-to-date,

t) in its DSM Semi-Annual Progress Reports, APS add program spending by budget category, and peak load MW savings; both year-to-date and DSM program-to-date, to supplement the 6-month reporting period data that the Company is currently filing,

u) in its DSM Semi-Annual Progress Reports, APS report environmental savings in terms of Sulphur Oxide (SOx), Nitrogen Oxides (NOx), Carbon Dioxide (CO2), Particulate Matter (PM10), and Water (H2O); such savings to be reported both for measure lifetime savings from DSM measures installed during the reporting period and for savings during the six-month reporting period only; and that such savings be reported for the reporting period, year-to-date, and program-to-date,

v) if the Direct Install approach is adopted for either the NR Small or Schools program or both, the following measures be available to those programs: 1) T8 Lighting Retrofits, 2) Screw-in CFL Retrofits, 3) Hard-wired CFL Retrofits, 4) Exit Sign Retrofits, 5) Occupancy Sensors on Lighting, 6) De-Lamping, 7) Refrigerated Case Evaporator Fan Controls, 8) Refrigerated Novelty Case Controls, 9) Anti-Sweat Heater ("ASH") Controls, 10) Refrigerated Case Fan Motor Retrofits, 11) Occupancy Sensor Controls on Vending Machines,

w) if the Direct Install approach is adopted for either the NR Small or Schools program or both, the "Integrated Refrigerated Case Controls and Motor Retrofits" measure shall not be included in APS' Direct Install programs at this time,

x) the Direct Install approach be adopted for the NR Small program, and that those APS-proposed Direct Install measures passing Staff's most recent Societal Cost Test be included in the program; that the program be implemented using premise size rather than customer size as the basis for eligibility; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures be capped at 90 percent of incremental cost and APS per-kWh-saved incentive rates for each Direct Install measure be re-calculated to conform to this restriction,

y) if the Direct Install approach is approved, APS establish a separate reporting category in the DSM Semi-Annual Progress Report within each program section to which Direct Install applies in which to include enhanced reporting of Direct Install activities including but not limited to: 1) active number of contractors and contractor identification, 2) number of Direct Install jobs completed, 3) dollar value of the Direct Install incentives paid to contractors, 4) dollar value of Direct Install jobs paid by the customer, 5) number of each Direct Install measure for which incentives were paid, 6) number of instances when incentives were reduced because of eligibility for incentives paid by other entities, 7) spending and savings numbers attributable to Direct Install for the period and year-to-date and program-to-date, 8) descriptions of the types of businesses participating in Direct Install with frequencies of participation for each type, and 9) an estimation of the reduced marketing or other program or administration costs compared to those that would have been expended if the measures were implemented through a non-Direct Install program,

z) the Custom-Efficiency measures and Studies available to some other APS Non-Residential programs be made available to the NR Small program; and that the $150,000 per year annual program cap for the sum of all incentives paid to a single customer in the NR Small program remain at $150,000 per customer per budget year; that Custom-Efficiency and Study incentives be included in that cap; and that the cap continue to be applied based on customer size, aa) APS redefine its Small Non-Residential program category to include non-residential customer facilities with a maximum monthly peak demand of 100 kW or less based on the past 12 months of billing history, and that the Company correspondingly redefine its Non-Residential Existing category to include APS non-residential customer facilities with a maximum monthly peak demand greater than 100 kW based on the past 12 months of billing history,

bb) APS redefine its Non-Residential New program category to include non-residential customers of all sizes that are constructing new facilities or are planning major renovation projects, and that annual per-customer per-program budget caps break between 100 kW and below ($150,000 per year cap) and above 100 kW ($300,000 per year cap),

cc) APS re-allocate its DSM program budget for the 2008 through 2010 planning years to be consistent with any re-definition(s) of the Small Non-Residential, Non-Residential Existing, and Non-Residential New program customer size categories that may be ordered herein or any other changes ordered herein; and that APS either inform Staff that no reallocation is necessary, or file an update to the budget portion of its "Portfolio Plan Update 2008 – 2010," filed in Docket No. E-01345A-07-0712, to reflect such re-definition(s) or other changes not later than 30 days after a Decision in this matter,

dd) if the Commission approves Direct Install for the Small Non-Residential DSM program, the Direct Install approach be made available also for schools of all sizes, and that those APS-proposed Direct Install measures passing Staff's Societal Cost Test be included in the program; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures be capped at 90 percent of incremental cost, and APS per-kWh-saved incentive rates for these measures be re-calculated to conform to this restriction,

ee) seven of APS' nine proposed new prescriptive DSM measures identified as the 1) Hard-wired CFL measure, 2) Fluorescent Induction Lighting measure, 3) Cold Cathode Lighting measure, 4) Reduced Lighting Power Density measure, 5) Package Terminal Air-Conditioners/Heat Pumps measure, 6) Economizers measure, and 7) High-Performance Glazing measure, be adopted,

ff) the Commission deny approval of the Water-Source Heat Pump measure that would provide incentives to encourage customers to replace or retrofit heat pumps on existing WSHP systems with high-efficiency water-source heat pumps,

gg) no incentive be paid for the Cool Roofs measures for new or replacement roofs at this time, but that APS encourage its customers to install a highly-reflective coated foam or membrane roof and include relevant cool roof information in its DSM customer educational materials,

hh) the Commission deny approval of the Cool Roof measure that would provide incentives to encourage customers to apply a highly reflective elastomeric or similar coating to various existing roofing materials,

ii) APS' Non-Residential Schools DSM program be approved,

jj) APS' Non-Residential Existing Facilities DSM program be approved,

kk) APS' Non-Residential New Construction and Major Renovation DSM program be approved,

ll) if the Commission should choose to approve the overall basic concept of the Direct Install component for inclusion in the NR Small program, APS' Small Non-Residential DSM program be approved,

mm) if the Commission should choose to deny approval of the overall basic concept of the Direct Install component for inclusion in the program, APS' NR Small program be terminated immediately, and that budgeted NR Small funds be re-allocated to other Non-Residential programs and budget categories that are believed by APS to be most able to effectively use them,

nn) the APS' Non-Residential Building Operator Training DSM program be denied approval; that the program be terminated as an APS Non-Residential DSM program immediately or as soon as contractual obligations allow; that the building operator training class concept may be transferred to the NR Existing program at APS' discretion; that APS provide an incentive of 50 percent of the cost of the class if BOT is continued as a class offering within the NR Existing program; that budgeted NR BOT funds be re-allocated to the Training and Technical Assistance budget category of the NR Existing program if BOT is continued as a class offering within the NR Existing program; or that budgeted NR BOT funds be re-allocated to other Non-Residential programs and budget categories that are believed by APS to be most able to effectively use them if APS chooses not to continue BOT within the NR Existing program, and

oo) APS' Non-Residential Energy Information Services DSM program be approved.

CONCLUSIONS OF LAW

1. APS is certificated to provide electric service as a public service corporation in the state of Arizona.

2. The Commission has jurisdiction over APS and of the subject matter in this Application.

3. The Commission, having reviewed the application and Staff's Memorandum (with attached Staff Report) dated November 12, 2008, concludes that it is in the public interest to authorize certain changes and enhancements to APS' Non-Residential DSM programs and to grant final approval to five of the Company's six Non-Residential DSM programs.

ORDER

IT IS THEREFORE ORDERED that:

1. APS shall continue to track DSM applications resulting from studies for which incentives have been paid, and shall report the semi-annual and cumulative results of its program-to-date tracking efforts in its DSM Semi-Annual Progress Reports,

2. APS' proposal, that all Non-Residential Existing program applications received for approved DSM measures be paid an incentive with no annual budget ceiling enforced on spending for this program, is hereby denied,

3. the existing 52 percent limitation on combined Rebates and Incentives as a percentage of overall Non-Residential DSM spending in all existing Non-Residential programs shall be removed beginning in the 2008 budget year,

4. the $1,000,000 limitation on APS recovery of Administration and Planning expenses related to the Non-Residential DSM programs is hereby removed,

5. Planning and Administration costs for any given Non-Residential program, such as NR New, shall not exceed 10 percent of the total program budget for the budgeting period, such as 2005 through 2007 or 2008 through 2010,

6. if building owners install DSM energy-efficiency measures that would qualify for APS incentives if made by the APS customer/tenant, the building owner shall be eligible to qualify for the incentive, and APS shall be authorized to pay such incentives to the building owner,

7. the cap on incentive payments for all technical assistance study incentives shall be applied to all customers on a per-study basis; and no per-customer, per-facility, or annual limit shall apply to these incentives other than the customer's overall annual program cap for the program through which the study is undertaken,

8. the incentive maximum for a Retro-commissioning Study shall be 50 percent of the cost of the study up to a maximum of $20,000, and the $20,000 cap shall be applied on a per-study basis,

9. APS is hereby granted the authority to shift budgeted funds within a Commission-approved DSM program either between budget categories within a DSM program or between sub-programs, measures, or measure groups within a DSM program; unless such funding shifts would violate another budget-shifting parameter or limitation on budget flexibility ordered by the Commission,

10. in cases where an integrated building energy simulation identifies energy savings opportunities from both custom-efficiency and prescriptive measures, the prescriptive measures shall be allowed to be combined into the custom-efficiency application, the combination shall be treated as a single custom-efficiency measure,

and a custom-efficiency incentive shall be paid based upon the combined energy savings,

11. the Non-Residential Energy Information Services annual incentive cap of $1,000 per customer is hereby removed and is reset to 75 percent of incremental cost up to a maximum of $12,000 per customer per year; that NR EIS incentives shall be paid only on meters having a monthly billed demand over 100 kW in the past 12 months of billing history; and that only meter costs and one-time set-up charges shall be included in the incremental cost from which the incentive is calculated,

12. the custom-efficiency incentive of $0.11 per annual kWh saved shall be reduced to $0.105 per annual kWh saved on July 1, 2009, and shall be further reduced to $0.10 per annual kWh saved on January 1, 2011, such reduction to be applied in all APS DSM programs to which the custom-efficiency incentive applies,

13. APS shall increase its efforts to work with other governmental and private entities involved with energy efficiency, and find ways to work collaboratively with them to evolve its DSM programs over time to complement their activities rather than to duplicate or compete with those activities, with goals to maximize energy efficiency while minimizing APS incentives to program participants and costs to all APS ratepayers that fund APS DSM programs,

14. APS shall continually research and monitor other energy-efficiency rebates and incentives, including tax credits, that may be available to its Non-Residential DSM program participants throughout its service territory; and that the Company shall limit its incentive payments to program participants to ensure that the sum of all known monetary incentives, either paid or available to APS program participants from other entities for the same measure, is limited to APS' established measure cap, such as 50 percent or 75 percent of incremental cost, unless a different cap is ordered by the Commission,

15. the Decision No. 68488 requirement that APS provide copies of all Non-Residential DSM program marketing materials for Staff review, within 30 days of the development of each piece, is hereby removed; and instead, a sample of such materials developed during each six-month period shall be included in APS' Semi-Annual DSM Progress Reports instead,

16. within 90 days of a decision in this matter, APS shall submit a "Marketing Progress Report" to the Commission in Docket Control comparing its actual Non-Residential DSM program marketing activities and spending to the Marketing and Communications Plan submitted to Staff on May 25, 2006, in compliance with Decision No. 68488,

17. APS shall 1) determine if it might be able to raise customer energy-efficiency awareness and further promote its Non-Residential DSM programs through the use of additional marketing efforts and activities, 2) review its Non-Residential programs to determine if there are areas where stepped-up marketing activities might either fully or partially displace the use of rebates and incentives to persuade

customers to participate in its Non-Residential DSM programs, and 3) consider if changes and increases in its marketing or customer education activities might increase customer awareness of incentive programs or loans for energy-efficiency activities available from entities other than APS. The results of these three studies shall be submitted to the Commission as part of APS' Marketing Progress Report,

18. APS shall provide a comprehensive description of its Program Marketing activity and the dispersion of that activity over the time period 2005 through 2007 and its relationship to Program Marketing expenditures 2005 through 2007, and include 1) a thorough explanation of the time period of marketing services rendered for each payment of Program Marketing expenses, 2) a thorough explanation of the extraordinary expenditures for Program Marketing during November and December of 2007, including what services were paid for, when such services were or will be received, and to whom payment was made, and 3) a thorough explanation of the extraordinary expenditures for Rebates and Incentives during November and December of 2007, and what incentives were paid, when such incentives were applied for, when they were installed, and other relevant details that might help Staff understand these payments. The requested data and explanations shall be submitted to the Commission as part of APS' Marketing Progress Report,

19. in its DSM Semi-Annual Progress Reports, APS shall continue to report its MWh savings resulting from DSM measures installed during the reporting period in terms of "lifetime" MWh savings over the expected life of the measures; and additionally, it shall report MWh savings for the six-month reporting period; and it shall report both lifetime and reporting period MWh savings by program not only for the period, but year-to-date and DSM program-to-date,

20. in its DSM Semi-Annual Progress Reports, APS shall add program spending by budget category, and peak load MW savings; both year-to-date and DSM program-to-date, to supplement the 6-month reporting period data that the Company is currently filing,

21. in its DSM Semi-Annual Progress Reports, APS shall report environmental savings in terms of Sulphur Oxide (SOx), Nitrogen Oxides (NOx), Carbon Dioxide (CO2), Particulate Matter (PM10), and Water (H2O); such savings shall be reported both for measure lifetime savings from DSM measures installed during the reporting period and for savings during the six-month reporting period only; and that such savings shall be reported for the reporting period, year-to-date, and program-to-date,

22. the following Direct Install measures shall be made available to the NR Small and Schools programs: 1) T8 Lighting Retrofits, 2) Screw-in CFL Retrofits, 3) Hard-wired CFL Retrofits, 4) Exit Sign Retrofits, 5) Occupancy Sensors on Lighting, 6) De-Lamping, 7) Refrigerated Case Evaporator Fan Controls, 8) Refrigerated Novelty Case Controls, 9) Anti-Sweat Heater ("ASH") Controls, 10) Refrigerated Case Fan Motor Retrofits, 11) Occupancy Sensor Controls on Vending Machines,

. . .

23. the Direct Install "Integrated Refrigerated Case Controls and Motor Retrofits" measure shall not be included in APS' Direct Install programs at this time,

24. the Direct Install approach shall be adopted for the NR Small program, and that those APS-proposed Direct Install measures passing Staff's most recent Societal Cost Test shall be included in the program; that the program shall be implemented using premise size rather than customer size as the basis for eligibility; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures shall be capped at 90 percent of incremental cost, and APS per-kWh-saved incentive rates for each Direct Install measure shall be re-calculated to conform to this restriction,

25. APS shall establish a separate reporting category in its DSM Semi-Annual Progress Report within each program section to which Direct Install applies in which to include enhanced reporting of Direct Install activities including but not limited to: 1) active number of contractors and contractor identification, 2) number of Direct Install jobs completed, 3) dollar value of the Direct Install incentives paid to contractors, 4) dollar value of Direct Install jobs paid by the customer, 5) number of each Direct Install measure for which incentives were paid, 6) number of instances when incentives were reduced because of eligibility for incentives paid by other entities, 7) spending and savings numbers attributable to Direct Install for the period and year-to-date and program-to-date, 8) descriptions of the types of businesses participating in Direct Install with frequencies of participation for each type, and 9) an estimation of the reduced marketing or other program or administration costs compared to those that would have been expended if the measures were implemented through a non-Direct Install program,

26. the Custom-Efficiency measures and Studies available to some other APS Non-Residential programs shall be made available to the NR Small program; and that the $150,000 per year annual program cap for the sum of all incentives paid to a single customer in the NR Small program shall remain at $150,000 per customer per budget year; that Custom-Efficiency and Study incentives shall be included in that cap; and that the cap shall continue to be applied based on customer size,

27. APS shall redefine its Small Non-Residential program category to include non-residential customer facilities with a maximum monthly peak demand of 100 kW or less based on the past 12 months of billing history, and that the Company correspondingly shall redefine its Non-Residential Existing category to include APS non-residential customer facilities with a maximum monthly peak demand greater than 100 kW based on the past 12 months of billing history,

28. APS shall redefine its Non-Residential New program category to include non-residential customers of all sizes that are constructing new facilities or are planning major renovation projects, and that annual per-customer per-program budget caps shall break between 100 kW and below ($150,000 per year cap) and above 100 kW ($300,000 per year cap),

. . .

29. APS shall re-allocate its DSM program budget for the 2008 through 2010 planning years to be consistent with re-definition(s) of the Small Non-Residential, Non-Residential Existing, and Non-Residential New program customer size categories ordered herein or any other changes ordered herein; and that APS shall either inform Staff that no reallocation is necessary, or file an update to the budget portion of its "Portfolio Plan Update 2008 – 2010," filed in Docket No. E-01345A-07-0712, to reflect such re-definition(s) or other changes not later than 30 days after a Decision in this matter,

30. the Direct Install approach shall be made available for schools of all sizes, and that those APS-proposed Direct Install measures passing Staff's Societal Cost Test shall be included in the program; that incentives for Direct Install measures may be paid directly to contractors; and that APS-paid incentives for Direct Install measures shall be capped at 90 percent of incremental cost, and APS per-kWh-saved incentive rates for these measures shall be re-calculated to conform to this restriction,

31. seven of APS' nine proposed new prescriptive DSM measures identified as the 1) Hard-wired CFL measure, 2) Fluorescent Induction Lighting measure, 3) Cold Cathode Lighting measure, 4) Reduced Lighting Power Density measure, 5) Package Terminal Air-Conditioners/Heat Pumps measure, 6) Economizers measure, and 7) High-Performance Glazing measure, are hereby adopted,

32. approval of the Water-Source Heat Pump measure that would provide incentives to encourage customers to replace or retrofit heat pumps on existing WSHP systems with high-efficiency water-source heat pumps is hereby denied,

33. no incentive shall be paid for the Cool Roofs measures for new or replacement roofs at this time, but that APS should encourage its customers to install a highly-reflective coated foam or membrane roof and include relevant cool roof information in its DSM customer educational materials,

34. approval of the Cool Roof measure that would provide incentives to encourage customers to apply a highly reflective elastomeric or similar coating to various existing roofing materials is hereby denied,

35. APS' Non-Residential Schools DSM program is hereby approved,

36. APS' Non-Residential Existing Facilities DSM program is hereby approved,

37. APS' Non-Residential New Construction and Major Renovation DSM program is hereby approved,

38. APS' Small Non-Residential DSM program is hereby approved,

39. the APS' Non-Residential Building Operator Training DSM program is hereby denied; that the program shall be terminated as an APS Non-Residential DSM program immediately or as soon as contractual obligations allow; that the building

operator training class concept may be transferred to the NR Existing program at APS' discretion; that APS provide an incentive of 50 percent of the cost of the class if BOT is continued as a class offering within the NR Existing program; that budgeted NR BOT funds be re-allocated to the Training and Technical Assistance budget category of the NR Existing program if BOT is continued as a class offering within the NR Existing program; or that budgeted NR BOT funds be re-allocated to other Non-Residential programs and budget categories that are believed by APS to be most able to effectively use them if APS chooses not to continue BOT within the NR Existing program, and

40. APS' Non-Residential Energy Information Services DSM program is hereby approved.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN COMMISSIONER

COMMISSIONER COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this _______day of ___________________, 2008.

BRIAN C. McNEIL
EXECUTIVE DIRECTOR

DISSENT: ____________________________

DISSENT: ____________________________

EGJ:JDA:lhm\JFW

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