

Template for Pennsylvania EDC Energy Efficiency And Conservation Plans

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Energy Efficiency and Conservation Plan

A. Transmittal Letter - with reference to statutory and regulatory requirements and EDC contact that PA PUC should contact for more information.

B. Table of Contents - including lists of tables and figures

1. Overview of Plan (~10 pages)

(The objective of this section is to provide an overview of the entire plan. It may be the only section read by senior policy makers and most stakeholders)

- 1.1. Summary description of plan, plan objectives, and overall strategy to achieve energy efficiency and conservation goals
- 1.2. Summary description of process used to develop the EE plan and key assumptions used in preparing plan
- 1.3. Summary tables of program savings goals, budget and cost-effectiveness (see Tables 1, 2 and 3)¹
- 1.4. Summary of program implementation schedule over four year plan period (see Chart 1 Notes)
- 1.5. Summary description of the EDC implementation strategy to manage EE portfolio and engage customers and trade allies
- 1.6. Summary description of EDC's data management, quality assurance and evaluation processes; include how EE plan and programs will be updated and refined based on evaluation results
- 1.7. Summary description of cost recovery mechanism

2. Energy Efficiency Program Summary Tables and Charts

(The objective of this section is to provide a quantitative overview of the entire plan for the four-year period. The audience will be those who want to see the "numbers", but not all the details.)

- 2.1. Residential and Commercial/Industrial Sector Summaries (see Table 4)²
- 2.2. Plan data: Costs, Cost-effectiveness and Savings by program, sector and portfolio (see Table 5)
- 2.3. Budget and Parity Analysis – (see Table 6)

¹ Tables (and Chart) referenced in the template outline are included at end of this document

² A *project* is an activity or course of action involving one or multiple energy efficiency measures, at a single facility or site. A *program* is a group of projects, with similar characteristics and installed in similar applications. Individual programs include those that involve encouraging and/or incenting the installation of equipment or practices associated with new-construction and retrofit solar energy and energy efficiency projects. The *Portfolio* consists of all the programs in the residential and commercial/industrial sectors. Residential sector programs include low income, single-family and multi-family housing projects. Commercial/Industrial sector programs include small and large commercial, industrial, agricultural, and public sector facility projects.

3. Program Descriptions (2 to 3 pages per program)

(The objective of this section is to provide detailed descriptions of each proposed program and the background on why particular programs were selected and how they form balanced/integrated portfolio.)

3.1. Discussion of criteria and process used for selection of programs

- 3.1.1. Define portfolio objectives and metrics that define program success (e.g., energy and demand savings, customers served, number of units installed).
- 3.1.2. Discussion of how programs were constructed for each sector to provide market coverage sufficient to reach overall energy and demand savings goals. Describe analyses and/or research that were performed (e.g., market, best-practices, market modeling).
- 3.1.3. Describe how energy efficiency, conservation, solar, solar photovoltaic systems, and geothermal heating measures are differentiated in the portfolio of programs.

3.2. Residential Sector Programs - include formatted descriptions of each program organized under the following headings:

- Program Title and Program years during which program will be implemented
- Objective(s)
- Target market
- Program description
- Implementation strategy (including expected changes that may occur in different program years)
- Program issues and risks and risk management strategy
- Ramp up strategy
- Marketing strategy
- Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)
- Program start date with key schedule milestones³
- Assumed EM&V requirements required to document savings by third-party consultant
- Administrative requirements – include utility staffing levels
- Estimated participation – includes tables indicating metric(s) with target value(s) per year
- Estimated program budget (total) by year – include table with budget per year
- Savings targets – include tables with total MWh and MW goals per year and cumulative & tables that document key assumptions of savings per measure or project
- Cost-effectiveness – include TRC for each program year and cumulative
- Other information deemed appropriate

3.3. Commercial/Industrial Sector Programs - include formatted descriptions of each program organized under the same headings as listed above for residential programs

³ It is assumed that there are four program years, each starting June 1 and ending May 31st. The first program year is Program Year 2009 (although it is expected that programs will not start before late 2009 or early 2010) and last program year is Program Year 2012.

4. Program Management and Implementation Strategies (~5 to 10 pages)

[The objective of this section is to provide detailed description of how EDC plans to manage and implement programs, including their approach to and use of Conservation Service Providers (CSP)]

4.1. Overview of EDC Management and Implementation Strategies

- 4.1.1. Description of the types of services to be provided by EDC as well as consultants, trade allies, and CSP. Indicate which organizations will provide which services and basis for such allocation. Reference reporting and EM&V information from Sections 5 and 6 below.⁴
- 4.1.2. Describe how each risk categories of performance, technology, market and evaluation can affect the programs and any risk management strategies that will be employed to mitigate those risks.⁵
- 4.1.3. Describe how EDC plans to address human resource and contractor resource constraints to ensure that adequate personnel and contractors are available to implement the EE plan successfully.
- 4.1.4. Describe “early warning systems” that will be utilized to indicate progress towards the goals and whether they are likely to be met. Define EDC’s approach and process for shifting goals and funds, as needed, between programs and adding new measures/programs.
- 4.1.5. Provide implementation schedules with milestones

4.2. Executive management structure

- 4.2.1. Describe EDC structure for addressing portfolio strategy, planning, review of program metrics, internal and external communications, budgeting and financial management, program implementation, procurement, program tracking and reporting, and QA/QC. Include EDC organization chart for management team responsible for implementing EE plan.
- 4.2.2. Describe approach to overseeing the performance of sub-contractors and implementers of programs and how they can be managed to achieve results, within budget, and ensure customer satisfaction.
- 4.2.3. Describe basis for administrative budget.

4.3. Conservation Service Providers (CSP)

- 4.3.1. Describe process used (and to be used) for selecting CSP

⁴ Services to be offered by EDC or others might include marketing, customer recruiting, demonstration projects, audits and or installation of new efficiency measures, verification of installations and or baseline usage, response to customer concerns, program tracking and program evaluation.

⁵ Performance risk is the risk that, due to design or implementation flaws, the program does not deliver expected savings. Technology risk is the risk that technologies targeted by a program fail to deliver the savings expected. Market risk is the risk that customers, or other key market players (e.g., contractors), choose not to participate in a program. Evaluation risk is the risk that independent EM&V will, based on different assumptions, conclude that savings fall short of what the implementers have estimated.

4.3.2. List any selected CSP, describe their qualifications and basis for selection (include contracts in Appendix)

4.3.3. Describe the work and measures being performed by CSP

5. Reporting and Tracking Systems (~5 pages)

(Objective of this section is to provide detailed description of reporting and the critical data management and tracking systems that EDCs need in order to implement programs and which Commission, and its evaluation consultant, need to access.)

5.1. Reporting ⁶

5.1.1. List reports that will be provided to PA PUC, the schedule for their delivery, and the intended contents

5.1.2. Describe data that will be available (including format and time frame of availability) for PA PUC review and audit.⁷

5.2. Project Management Tracking Systems

5.2.1. Provide brief overview of the data tracking system for managing and reporting measure, project, program and portfolio activities, status and performance as well as EDC and CSP performance and expenditures.

5.2.2. Describe the software format, data exchange format and database structure you propose to use for tracking participant and savings data. Provide examples of data fields captured.

5.2.3. Describe access and mechanism for access for Commission and statewide evaluator.

6. Quality Assurance and Evaluation, Measurement and Verification (~5 pages)

(Objective of this section is to provide detailed description of how the EDC's quality assurance/quality control, verification and internal evaluation process will be conducted and how this will integrate with the statewide evaluation activities)

6.1. Quality Assurance/Quality Control

6.1.1. Describe overall approach to quality assurance and quality control.

6.1.2. Describe procedures for measure and project installation verification, quality assurance and control, and savings documentation.

⁶ PA PUC should probably define what reports need to be provided and their schedule for providing such information. Alternatively, Commission could take the information provided here by each utility, evaluate what is "suggested", and then issue an order with specifics. This could include utilities providing information directly into a statewide tracking system, some of which could be available for public review via the internet (see scope for statewide evaluator).

⁷ This should include information on measures, projects, programs and portfolios.

6.1.3. Describe process for collecting and addressing participant, contractor and trade ally feedback (e.g., suggestions and complaints)

6.2. Describe any planned market and process evaluations and how results will be used to improve programs.

6.3. Describe strategy for coordinating with statewide impact evaluation consultant, including how data will be provided to statewide consultants, and data expected from statewide consultant.⁸

7. Cost-Recovery Mechanism (~5-10 pages with tables)

(Objective of this section is to provide detailed description and estimated values for cost recovery mechanism; this chapter will probably require additional specification.)

7.1. Description of plan in accordance with Section 1307, 66 Pa. C.S. § 1307, to fund the energy efficiency and conservation measures, to include administrative costs.

7.2. Data tables (Commission may need to provide desired format and information)

7.3. Provide and describe tariffs and a Section 1307 cost recovery mechanism.

7.4. Describe how the cost recovery mechanism will ensure that measures approved are financed by the same customer class that will receive the direct energy and conservation benefits.

8. Cost Effectiveness (~5 pages)

(Objective of this section is to provide detailed description of the cost-effectiveness criteria and analyses. It can refer to appendices with program data. It will probably be a brief chapter and could be rolled into Section 9.1.)

8.1. Explain and demonstrate how plan is cost effective as defined by the Total Resource Cost Test specified by the Commission.

8.2. Explain how an annual independent evaluation of cost-effectiveness will be accomplished, as well as a full review of the results of each five-year plan.

9. Plan Compliance Information and Other Key Issues (~ 5–10 pages)

(Objective of this section is to have specific areas in EE plan where PUC can review “miscellaneous” compliance items required in Legislation and address key issues in EE policy, portfolio and program design)

9.1. Plan Compliance Issues⁹

9.1.1. Describe how plan provides a variety of energy efficiency and conservation measures and will provide the measures equitably to all classes of customers.

⁸ Indicate if EDC will conduct its own independent impact evaluation, and if so, describe the process

⁹ These sub-sections may reference other chapters of the plan as they may restate what was included elsewhere in the plan, and are collected here only for convenience of review.

9.1.2. Describe how plan includes specific proposals to obtain 10% of required electricity consumption reductions from units of federal, state and local governments, to include municipalities, school districts, institutions of higher education and nonprofit entities.

9.1.3. Provide statement delineating the manner in which the EE plan will achieve the requirements of the program under 66 Pa. C.S. §§ 2806.1(a), 2806.1(c) & 2806.1(d).

9.1.4. Describe how EE plan includes specific measures for households at or below 150% of the federal poverty income guidelines, the number of which shall be proportionate to those households' share of the total energy usage in the service territory.

9.1.5. Describe how EDC will ensure that no more than two percent of funds available to implement the plan shall be allocated for experimental equipment or devices.

9.2. Other Key Issues

9.2.1. How will this EE plan lead to long-term, sustainable energy efficiency savings in the EDC's service territory and Pennsylvania?

9.2.2. How will this EE plan, and the EDC, avoid possible overlaps and confusion between programs offered in different Pennsylvania EDC service territories as well as possibly programs offered in neighboring states?

9.2.3. How will this EE plan leverage and utilize other financial resources, including funds from other public and private sector energy efficiency and solar energy programs?

9.2.4. How will the EDC address consumer education on energy efficiency, conservation, solar and solar photovoltaic systems, and geothermal heating?

9.2.5. What will be mechanism used, and what will be the metrics presented for providing the public with information about the results from the programs?

10. Appendices

- A. Commission approved electricity consumption forecast for the period of June 1, 2009 through May 31, 2010.
- B. Weather adjustment calculation that meets the requirements outlined in Section H of the January 15th Implementation Order.
- C. Average hourly demand in the EDC's 100 highest peak hours during the period of June 1, 2007 through September 30, 2007
- D. EDC approved CSP contract(s)
- E. Program by program calculation of savings and costs for each program year. Include separate sections for each program with sub-sections for each year describing savings and costs information. Cost data should include for each program (and for General Administrative Cost Areas of Planning, Evaluation and Other) and each program year separate budgets for (see Example Table 7):
 - Direct Program Costs
 - EDC labor
 - EDC materials and supplies
 - CSP labor
 - CSP materials and supplies
 - Other outside services (define)
 - Customer incentives
 - Other (define)
 - Administrative Costs ¹⁰
 - Totals
 - Cost effectiveness calculations by program and by program year, indicating benefits by category (see Example Table 8)
- F. Calculation methods and assumptions. Describe methods used for estimating all program costs, including administrative, marketing, and incentives costs; include key assumptions. Describe assumptions and present all calculations, data and results in a consistent format. Reference Appendix E.

¹⁰ Commission may want to specifically define what is included in Administrative Costs versus program costs.