

ESMEC-ET Electric Supply Portfolio

Energy Cost Management and Procurement Plan

(Final September 2012)

I. Plan Statement

The goal of the Eastern Shore of Maryland Energy Trust (ESMEC-ET) Energy Cost Management and Procurement Plan is to mitigate and stabilize expected electric supply costs over a rolling three year time horizon. No later than 5 months prior to the beginning of the upcoming fiscal year, electric supply costs will be stabilized within a predetermined limited variance range and the successive two fiscal years' costs will gradually be stabilized within a predetermined limited variance range over the next two years. The Policy will cover 3 years beyond the current fiscal year. Market price targets will be considered to provide opportunities to reduce costs in future fiscal years relative to the current fiscal year.

II. Electric Account Profile

The current approximate annual purchase volumes behind the local utility (Delmarva Power) are:

<u>Approximate # Accounts</u>	<u>2011/2012 UCAP (MW)</u>	<u>2012 Trans Cap (MW)</u>	<u>Annual (MWhs)</u>
942	35.7	30	173,000

III. Electric Component Price Risk Profile

Fiscal year 2011 (July 1, 2010 through June 30, 2011) electric supply component costs and their respective price volatility profiles were:

	<u>\$/Mwh</u>	<u>% of Total</u>	<u>Price Volatility Profile</u>
Supply			
Energy	\$74.08	63%	High
Capacity (UCAP)	14.20	12 %	High year to year
Transmission	3.46	3%	Stable
All other	<u>2.30</u>	<u>2%</u>	Stable
 Total supply cost	 \$94.04	 80%	
 Distribution	 <u>\$24.00</u>	 <u>20%</u>	Stable
 Total electric cost	 <u>\$118.04</u>	 <u>100%</u>	

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Energy

For fiscal year 2011 approximately 63% of the costs represent energy costs which are determined directly by energy commodity/trading markets and are highly volatile (both up and down). Forward and spot (hourly) electric prices in PJM, (the mid-atlantic regional grid that includes the Delmarva Power service territory) are driven primarily by natural gas prices and the historical and current correlation between electric and natural gas prices is over 90%. Given the current PJM market structure/design, this high correlation is expected to continue over the long term. Below is a summary of the electric forward and spot market volatility since 2003.

Energy Cost Volatility Range Summary

	Low		High	
	Price (\$/MWh)	ESMEC-ET Cost (1) (\$ millions)	Price (\$/Mwh)	ESMEC-ET Cost (1) (\$ millions)
Spot (2)	\$40	\$6.9	\$80	\$13.8
Forward (3)	\$40	\$6.9	\$119	\$20.6

- (1) Based on 173,000 MWhs per annum
- (2) Based on PJM around the clock (ATC) real time hourly prices at Delmarva Zone for calendar year low and high since 2003.
- (3) Based on PJM one year forward prices at Delmarva Zone since 2003 assuming ESMEC-ET on peak/off peak ratio of 58%/42%

Capacity (UCAP – Unforced Capacity Obligation)

Represents approximately 12% of the total cost and this amount will vary each year based on PJM base residual auction (BRA) price outcomes and the portfolio's annual peak load contribution (PLC). Capacity prices are known three years in advance and are held each year for the next third year out. The annual BRA clearing prices are determined based on the projected capacity demand and available capacity to serve (supply) by utility zone. The capacity prices and estimated costs for the Delmarva zone for PJM fiscal years 2011 through 2015 are:

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<u>PJM Fiscal Year</u>	<u>Capacity Price (\$ MWD)</u>	<u>Estimated Annual Cost (1)</u>
Jun 1, 2010 – May 31, 2011	\$187.37	\$ 2.4 million
Jun 1, 2011 – May 31, 2012	\$116.16	\$ 1.5 million
Jun 1, 2012 – May 31, 2013	\$222.30	\$ 2.9 million
Jun 1, 2013 – May 31, 2014	\$245.09	\$ 3.2 million
Jun 1, 2014 – May 31, 2015	\$142.99	\$ 1.9 million

(1) Based on ESMEC-ET 2011/2012 UCAP of 35.7 MW

MWD = MegaWatt Day

Annual capacity costs can be controlled/reduced through reducing demands during summer peak hours (peaks hours generally occur during July and August, Monday-Friday, hours ending 4:00 P.M. - 6:00 p.m. EST). EnerNOC provides ESMEC-ET members a peak load predictor service to assist them in reducing summer peak demands.

Other Supply Costs

The remaining portion of supply costs (approximately 5%) consists of transmission, PJM ancillary costs, renewable costs and supplier fees and are highly stable (costs not subject to significant fluctuation from year to year).

Delmarva Power Distribution Costs

For fiscal year 2011, approximately 20% of total electric costs represent Delmarva Power local distribution costs which are non-market based as they are approved by the Maryland Public Utilities Commission and are highly stable.

IV. Purchase Structure

The purchase strategy is executed through a dedicated PJM subaccount competitively procured from a Maryland licensed service provider. All ESMEC-ET accounts are enrolled into the subaccount by the service provider. The energy costs for all metered consumption reported in the subaccount are based on a combination of fixed rate wholesale block purchases and PJM hourly prices (at Delmarva Power zone) in effect during the reporting period. All other PJM charges (capacity, transmission, ancillary costs) associated with the accounts are passed thru to the subaccount at cost. The services provider will bill the accounts based on pre determined budgeted rates prepared by the Energy Consultant and approved by ESMEC-ET. Billing rates are adjusted periodically to true up billed vs. actual costs of the supply portfolio.

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V. Energy Price Risk Management Strategy

1. Flexible Dollar Cost Average Mechanism

The overall strategy is to build price stability by avoiding single point market exposure, i.e., making a fixed price commitment for 100% of energy requirements at a single point in time as over 60% of overall cost is determined in a volatile market that can change rapidly and by large amounts. This is to be accomplished through a dollar cost averaging mechanism where fixed rate blocks are purchased for portions of consumption over time such that by five (5) months prior to the beginning of a fiscal year the maximum desired level of price stability has been established for that period. The level of fixed price commitments will increase for each period as it draws closer to the full commitment date (five (5) months prior to fiscal year). ESMEC-ET retains the flexibility to accelerate fixed price block purchases when market opportunities arise and defer block purchases when market prices are deemed unattractive or inflated.

2. Implementation Guideline

Target Fixed Price Positions

The targeted fully hedged (fixed price) positions for the energy exposure of the entire portfolio will be:

80 – 90 % - on peak expected volume
70% - 85% - off peak expected volume

The fully hedged positions will be targeted for execution five months prior to the next budget year.

Planned Hedge Position Timeline

	<u>On Peak Exposure</u>		<u>Off Peak Exposure</u>	
	<u>% of Target Hedge</u>	<u>Accumulated % Target Hedge*</u>	<u>% of Target Hedge</u>	<u>Accumulated % Target Hedge*</u>
26 Months prior to budget period:	25%	25%	25%	25%
17 Months prior to budget period:	25%	50%	25%	50%
11 Months prior to budget period:	25%	75%	25%	75%
5 Months prior to budget period:	25%	100%	25%	100%

*100% Target Hedge means that 80-90% of On Peak hedge target is reached and 70-85% of Off Peak target hedge is reached

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VI. Cost Management

The following cost management strategies and tactics will be employed to manage portfolio supply costs:

- ESMEC-ET will purchase fixed rate wholesale blocks of power to manage energy price volatility. To help ensure competitive pricing, the services provider will obtain a minimum of three bids. In addition, with the assistance of the Energy Consultant, bids may be obtained outside of the services provider to help ensure price competitiveness.
- Separate pricing will be obtained for PJM West Hub and Delmarva Power zone delivery. The energy consultant will advise on which delivery point represents the best value for ESMEC-ET.
- Allow assumption of a limited amount of spot market risk to avoid liquidating fixed rate purchases against the spot market.
- Utilize Day Ahead Scheduling to reduce operating reserve costs and reduce spot market energy price volatility.
- Provide PLC predictor service to all client provided personnel. Continue to educate ESMEC-ET members on the program including how it works and the cost avoidance opportunities it provides.
- Participate in annual PJM Auction Revenue Rights (ARR) process to influence level of ARR credits.
- Competitively bid renewable energy certificates (REC) purchases to meet Maryland Renewable Portfolio Standard (RPS) compliance.
- Advise ESMEC-ET members in evaluating demand response and real time metering opportunities to support increased PLC reduction, energy usage reduction and expansion of demand response opportunities.

VII. Program Management

The electric cost management and procurement plan and program will be overseen by ESMEC-ET. ESMEC-ET meets on a bi-monthly basis. The meetings will include a portfolio review report and presentation from the Energy Consultant. The report will include portfolio performance for fiscal year to date, performance to plan, next two fiscal year cost projections, hedge position, hedge strategy, review of current market rates, portfolio billing rates, capacity cost review and other energy related matters.

VIII. Transaction Authority

Transaction authority will reside with the ESMEC-ET and may be delegated as deemed appropriate. All delegated authority must be in writing.