

# Benefits of Flexible AC Transmission Systems

An overview of the business case for  
PHI Inc.

# PHI Overview

**Pepco Holdings, Inc**

**\$8.2B LTM Revenues**  
**\$13.7B Total Assets**  
**\$4.3B Market Cap**  
**1.8 Million Electric Customers**  
**120,000 Gas Customers**



**Regulated  
 Electric  
 & Gas  
 Delivery  
 Business**



**Competitive  
 Energy/  
 Other**



A PHI Company



A PHI Company



A PHI Company

**69% of Operating Income**

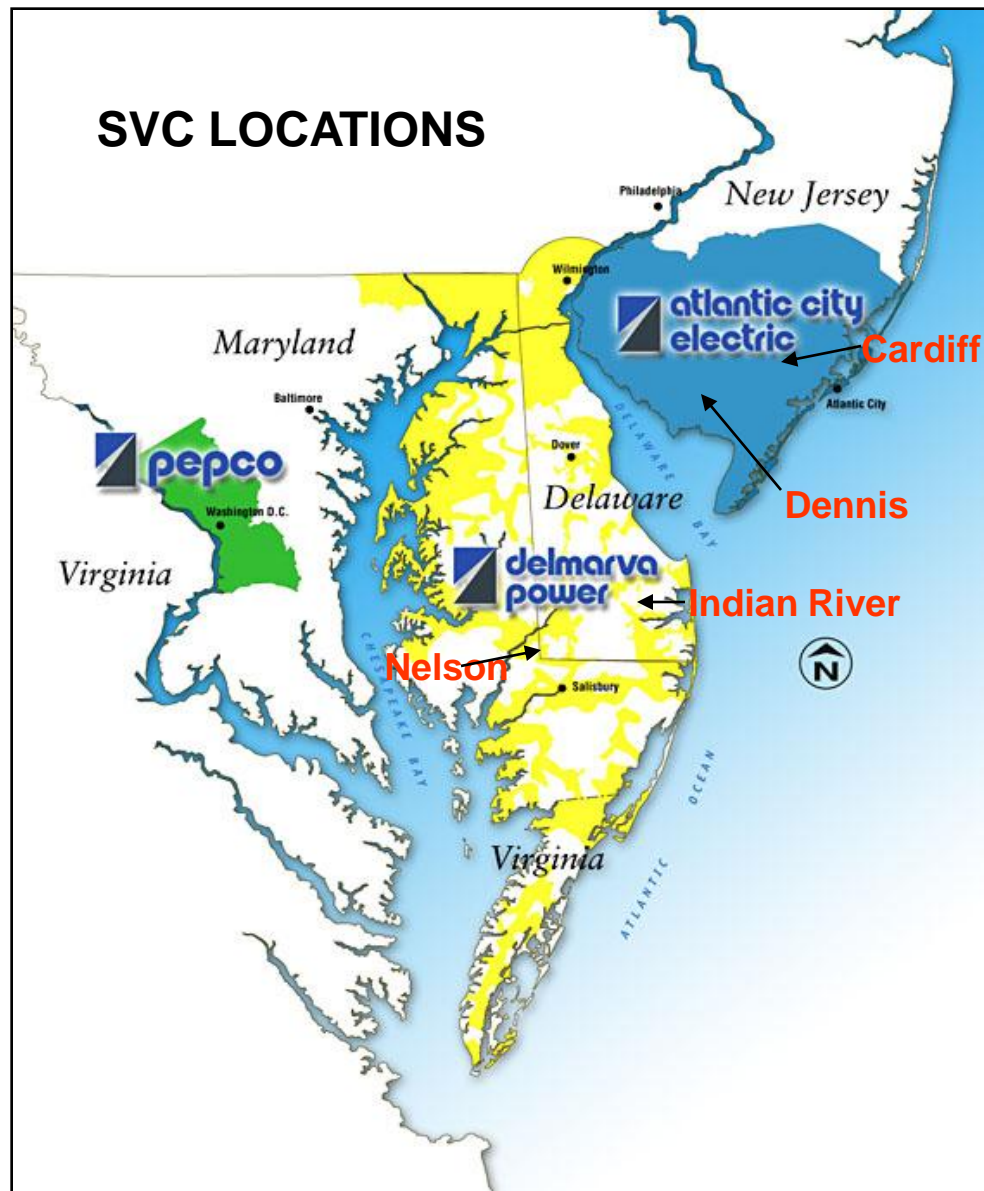


PHI Investments

**31% of Operating Income**

Note: Financial and customer data as of March 31, 2006. Operating Income percentage calculations are for the last twelve months ended March 31, 2006, shown net of special items. See appendix for details.

- **Flexible AC Transmission Systems (Static Var Compensators) chosen as solution since they provide a cost effective solution for high speed dynamic transmission voltage support**
- **Four FACTS (SVCs) installed on the PHI system from 2000 – 2007**



## ❖ PHI needed to:

- ❖ **Ensure power reliability**
- ❖ **Prevent major voltage collapses**
- ❖ **Provide high speed dynamic support**
- ❖ **Respond to system disturbances and increased load conditions**

- ❖ **Fast response (in-service) alternative**
- ❖ **Stability and security of system increased**
- ❖ **Prevents voltage collapses**
  - ❖ **Summer 2006 (Cardiff SVC – loss of BL England)**
  - ❖ **Loss of Indian River**
- ❖ **Increased transmission transfer capacity 20%**
- ❖ **Reduced transmission congestion costs**
- ❖ **Preventing economic impact of outages**

- ❖ **Uses existing right-of-way**
- ❖ **Reduces need for new transmission lines**
- ❖ **Avoids building new generation**
- ❖ **No negative environmental impacts**
- ❖ **Enhanced system-wide reliability**
- ❖ **Provides insurance against potential system outages**