## DOMINION – UTILITIES PRIVATIZATION FUPWG Spring 2017 04/12/2017

#### **Dominion at a Glance**

#### Energy Portfolio

- Over 2.6M Electric Customers and 2.3M Gas Customers
- o 64,200 miles Electric Transmission and Distribution
- Over 800 substations
- 66,300 miles transmission, distribution, gathering, and storage pipeline
- o 24,600 MW Electric Generation
- o 933B cubic feet of natural gas storage
- Operations in 18 states
- Over 1500 mW of renewable energy production in operation, under construction, or in development
- Over 400 mW of additional renewable energy production planned in Virginia over next 5 years



#### We are Energy Partners to Mission-Critical Facilities



#### In all, Dominion provides electric service to over 300 federal sites.











#### **Dominion – Partners In Privatization**

Fort Belvoir Fort Myer Fort McNair Henderson Hall **Arlington National** Cemetery

Fort Lee JBLE - Eustis JEB Little Creek – Fort Story (Fort Story) Fort Monroe (BRAC 2005)

Fort Hood – Gas & Electric



## **Dominion Privatization**

#### Keys to Success

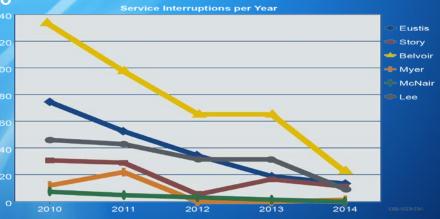
Partnership Based Relationships

- Flexible Approach
- Real World Utility Expertise



#### **Dominion Privatization - Results**

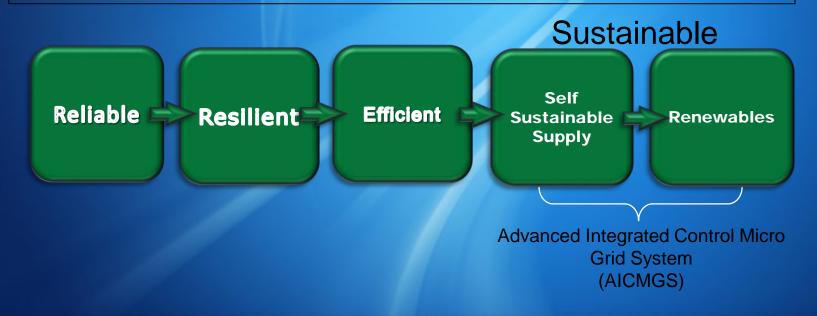
- On-time transitions
- Completed over \$300 million in projects for expansions, reliability, and energy security
- Supported significant BRAC related work at Fort Belvoir, Fort Lee, and Fort Eustis
- Significant Improvement in Reliability and Resiliency -Reduced outages by over 70%
- Own, operate and maintain 50 emergency generators to support energy security and sustainability





#### Dominion's Installation Blueprint Base of Tomorrow®

An installation that achieves a Reliable, Resilient, Efficient, and Sustainable energy supply from the generator to the end user by incorporating a diverse set of energy solutions implemented in an Integrated and Optimal approach.





#### **Reliable and Resilient**

System Protection / Lightning Protection Enhancements **Automatic Transfer Schemes / Distribution Automation Circuit Reconfiguration / Enhanced Ties/ Loops Circuit Reconditioning** Strategic Undergrounding **Duct Bank Replacement Underground Cable Replacement** Switch Replacements **Transformer Replacements Tree Trimming** 



## Efficient

**Conservation Voltage Reduction / Micro CVR** 

Awarded ESTCP grant (Fort Myer) to install Conservation Voltage Reduction (CVR) and MicroCVR to optimize voltage to reduce demand and consumption and to maintain voltage within a critical bandwidth

#### LED Lighting

Full Energy Services Capabilities – ESCO Partners



### Sustainable

Short Term Sustainability

Own, Operate and Maintain 50 Emergency Back-Up Generators

Provide Emergency Back-Up Power directly to critical facilities

24/7 Monitoring with Dispatch Capability

Integrated into spot Micro Grids at Fort McNair, Fort Belvoir, and Fort Eustis



### Sustainable

#### Long Term Sustainability

Advanced Integrated Control – Micro Grid System (AICMGS)

- Includes automation of distribution system and integration of existing generation
- Provides capability to isolate and self sustain loss of electric utility grid
- Maximizes use of existing generation economic dispatch
- Leverages investment in Reliable and Resilient infrastructure



#### Renewables

- Solar Proposals on Privatized Installations
- **Battery Storage**

Integration of renewables into system to demonstrate how they can operate in coordination with normal utility supply and AICMGS

Integration of CVR to regulate voltage and compensate for output variability of renewable generation







# Team Ft Hood













# Team Ft Hood / ISDC Projects:



## Team Ft Hood / Challenges:

Communication Barriers

Team Relocation

Phantom Solar Project





## Team Ft Hood / Successes:

- Safety Culture
- DPW Relationship
- System Inventory





# Team Ft Hood / The Future:

NG Regulator Stations

Transmission Line

NG Leak Repairs

East Sub





# Team Ft Hood / The Potential:

#### Solider Building

## Distribution Automation

### Energy Security



