

# DON'S ADVANCED METERING INFRASTRUCTURE (AMI) STRATEGY WILL DELIVER OPTIMAL ENERGY & UTILITIES BENEFITS

- Status
- Architecture and deployment strategy
- Acquisition strategy
- Next steps



# DON IS ON TRACK TO IMPLEMENT DOD METERING PLAN

EPACT 2005 Metering Requirement

Program structure

Criteria for metering cost, benefits and impacts

Implementation plan

Performance measures

- Initial and complete surveys of all installations to be completed in FY08
- Global AMI Team delivering surveys, acquisition, and network design
- Prioritization first for those w/ >\$35K/year electric bill\*
- Phase one will build AMI network at NBVC<sup>1</sup>, subsequent deployment driven by funding and needs of installation
- Desired benefits (labor savings, billing accuracy, energy consumption, etc.) will drive metrics

# AMI ARCHITECTURE IS BEING DESIGNED



- Network design
- Meter choice
- HAN architecture
- Establish budget
- Write SOW for support

1 Aug

- Award contracts for program support, surveys, and a detailed site design
- Commission AMI team
- Present/market/socialize AMI strategy
- Coordinate w/ other entities

30 Sep

- Award omnibus AMI contract
- Issue delivery order for greenfield transformation of NBVC into AMI/"Smart Grid"

Feb 08

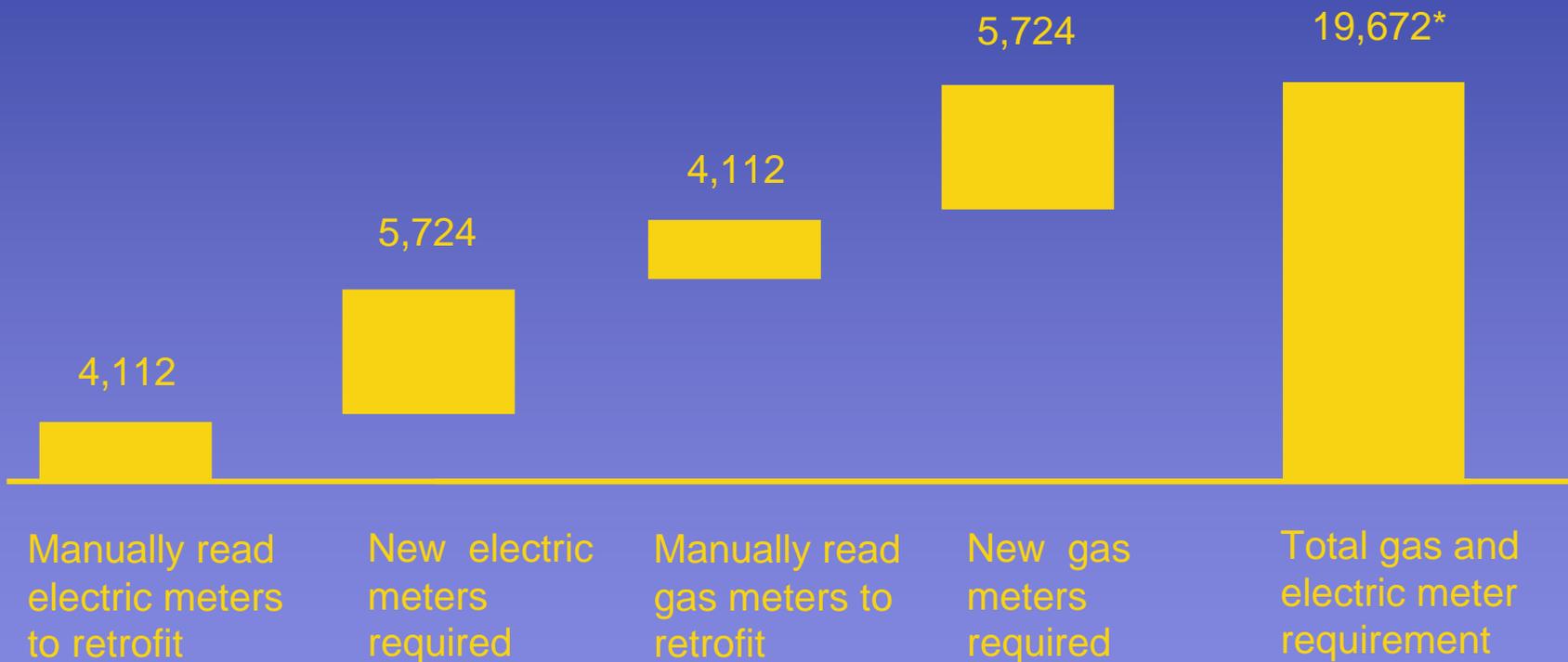
- Evaluate feedback
- Recommend timeline for subsequent installations IAW budget

Sep 08





# METERS WILL BE INSTALLED DEPENDENT UPON SURVEYS



\* Does not reflect Marine Corps requirements

# PLAN TO IMPLEMENT AMI IS BENEFITS DRIVEN

## Benefits desired

- Accounting/Billing
- Energy consumption
- Energy Management

## Requirements to deliver benefits

- Network Design\*
- Meter choice/application
- EMS (HAN) architecture

## Strategy

- Deployment
- Operation
- Evolution

Prototype execution will ensure long term strategy delivers optimal solution

# AMI HAS REQUIREMENTS TO BE DEFINED



## Decisions

## Issues

**Meter**

- Electrical first
- ANSCI C12.0 or C12.1 compliant
- Solid-state
- Display

**Network**

- 2-way communications to meter
- Multiple protocols
- IP enabled preferred

**EMS (HAN)**

- Ensure functionality is enabled

- Bridge under glass
- Communication module

- Interface w/ NMCI
- Protocol
- Communication backbone
- Security

- End devices
- Protocol



Solution can be optimized for longevity and compatibility with utility providers



# OMNIBUS CONTRACTS WILL DELIVER IDEAL ARCHITECTURE FOR EACH INSTALLATION

## Scope / requirements

**Program Management**

**Installation**

**Hardware/meters**

- Installation contract support
- Program management support
- AMI industry coordination
- QA meter installation
- Network design & installation
- Start-up and testing
- Functional requirements met and demonstrated
- Solid state installed with two-way communications to network and end-devices



Contracts will have capacity to support AMI deployment across Navy and Marine Corps installations

# NEXT STEPS TO ESTABLISH AMI PLATFORM

## ARCHITECTURE

- AMI benefits desired will determine optimal architecture choices for each installation
- Industry expert will help design architecture choices for phased deployment

## INSTALLATION

- Detailed design for first-site will support FY08 deployment
- Full AMI solution phase 1/ pilot planned for NBVC

## OPERATION

- Follow-on, overarching management can be done by systems integrator
- Operation focused on delivering utilities billing and energy management benefits



Would you like to know more about  
this session?

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