





Measurement & Verification on Energy EULs

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EUL Energy Projects

- EUL was coined and first enacted in 1991 to provide a better return on – and better use for – underutilized federal real property assets, through a market-driven use of the property, and transaction
 - A use that “enhances” the mission of the federal host
 - A transaction that results in a marketable use of the land and a fair return – in lieu of rent – to the federal host
- Where there is a need for new or modernized energy facilities and infrastructure – and in the absence of capital dollars – the energy market can be an excellent fit with EUL



M&V and Energy EULs

- M&V is not a specific requirement of any of the EUL or EUL-like authorities – VA, DoD, NASA, or DOE
- In the case of an Energy-based EUL
 - Lessee and owner of the energy assets provide energy services, not equipment or facilities
 - Terms of the delivery of the specific service(s) are negotiated through an energy services contract, based on customer requirements
 - Energy quality – temp/pressure and power quality warranties
 - Plant uptime – commodity availability warranties
 - Equipment performance – heat rate, etc.
 - Reduced cost energy – stipulated or measured



Project Example: M&V and EUL

- **Fort Detrick Central Utility Plant EUL, Phase I**
 - Owner/Builder/Operator: Keenan Development & Chevron Energy Solutions
 - Customer
 - National Interagency Biodefense Campus: Army, NIH, DHS
 - Bio-Safety lab (BSL) levels 3 & 4 involving critical biomedical experiments other national defense-related investigations
 - Customer Energy Requirements
 - Must be able to run 24/7/365 – cannot lose containment
 - Must have high quality power and consistent temperature/pressure performances
 - M&V Solution
 - Quality measurement
 - Thermal: Chevron warrants pressure/temp ranges measured at point of delivery
 - Electrical: Chevron warrants power quality per the ITI Council curve tolerance
 - Availability assessment
 - Thermal: 99.99% uptime measured through a performance specification
 - Electrical: 99.999% uptime measured through a performance specification



Benefits: Fort Detrick M&V Model

- **Chevron stands behind Availability and Quality warranties with its investment-grade credit rating**
 - If warranties are not met, Chevron takes all steps to remedy and there is a financial adjustment in customer's charge
 - Reduced the cost of the revenue-based project financing
- Availability & Quality warranty and M&V structure supports DoD's Task Force on Energy Strategy with regard to vulnerability of critical missions
 - System designs and warranties eliminate vulnerability of National Interagency Biodefense Campus facilities from grid outages and inadequate power back-up
- Fort Detrick provides one of highest levels of energy reliability in DoD
 - Central Utility Plant has plans for multiple expansions to support:
 - Additional BSL- 2, 3 & 4 lab facilities – Army, Navy and other federal agencies
 - Critical communications and intelligence-gathering activities
- Bottom Line: Adequately measured & verified Quality and Availability warranties at Fort Detrick have enhanced the marketability of the Central Utility Plant, which has maximized the value and use of Army capital assets!!



Would you like to know more about this session?

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- Don't forget to fill out and drop off your session evaluations.