UCONN – Public University #18

- Founded in 1881
- Main Campus in Storrs, CT
- 5 Regional Campuses
- Land Grant & Sea Grant College
- 4,318 Acres
- 362 Buildings total 12.5 Million Sq. Feet
- 2018 US News and World Reports
UCONN Growth Initiatives

- **UCONN 2000 and 21st Century**
  - As of July 2017 $3.6 billion in Construction

- **Next Generation Connecticut**
  - $1.5 billion over 10 years
  - Construction, Renovations, Infrastructure

- **Bioscience Connecticut**
  - $864 million in Genomics and Personalized Med
Growth 2015 - 2035

- Premier Research University
- $1.5 billion capital program for Science, Technology, Engineering, and Math (STEM)
  - Academic Facilities: $841.4M
  - Deferred Maintenance: $580.1M
  - Residential Life Facilities: $172.5M
  - Parking Facilities: $70.0M
  - Equipment: $172.6M
  - Regional Campuses: $152.0M
- 1.7 million GSF new construction by 2025
- Master Plan & Framework Consultant
UCONN Values

- Committed to leadership in campus sustainability for our generation and for the next generation
  - American College and University Presidents' Climate Commitment
  - Climate Action Plan – Carbon Neutral by 2050
  - 2020 Vision for Campus Sustainability & Climate Leadership

- Economic Impact
  - Technology Incubation Program is home to 21 startup companies
  - $1.5 billion in direct economic impact
  - $1.9 billion in indirect economic impact
  - Research $373 million to Connecticut
  - $202M State and Local Tax Revenue Annually
  - 24,000+ UCONN Supported Jobs
  - $11.80 Return for Every State Funded $1.00
UCONN Partnerships

• Strategic Energy Management Plan
  – Memorandums of Understanding
    – Eversource
    – CNG
    – Caterpillar Solar Turbines

• DEEP Lead by Example Program
  – Energy Services Performance Contracts
    – Consolidated Edison
  – Renewables
    – Comprehensive Energy Solutions
UCONN Resiliency = Clean Heat and Power

- Black Start Micro-grid to serve 170th
- Supplies all Utilities except Gas
  - On Site Fuel Storage #2 Oil
  - 24.9 Megawatts of Generation
  - 336,000 PPH of Steam
  - 18,000 tons of Chilled Water
  - Water, Reclaim Water, and Sewer
    - Serves Town of Mansfield
- Current Population of 40,350 (or approx. 8,070 households)
- $235M Physical Plant Budget
Mission Resiliency
Strategic Energy Management (SEM) Plan

- Electrical Resiliency
  - Fully redundant N+1 electrical system that can support the entire campus, without load shedding, should any one source drop
  - Installing a Supplemental Tri-generation Plant at Storrs
  - Adding Cogeneration at Regional Campuses
  - Peak Shaving and Demand Reduction Programs
Steam Resiliency
- Fully redundant N+1 System produces steam from Clean Heat and Power sources where possible
- Efficiently distribute high pressure steam to, and return pumped condensate from buildings

Chilled Water Resiliency
- Fully redundant N+1 System provides Chilled Water from Steam for year around efficiency
- Efficiently distribute CHW to and from central plants
Strategic Energy Management (SEM) Plan

- **Availability**
  - System Interconnection
  - On Site Fuel Reserves
  - Hedged Natural Gas Commodity and Transportation
  - Battery Storage
  - Ice Storage

- **Controls/Data Security**
  - N+1 Computer Network
  - Limited Access
  - Encryption
  - Firewalls
  - Dark Fiber Loops
  - Probing