

Electric Power Usage at Brookhaven National Laboratory

Follow-up to January 12th CAC meeting



*Presentation to CAC
February 13, 2017*

BROOKHAVEN
NATIONAL LABORATORY

a passion for discovery



Brookhaven National Laboratory

An evolving infrastructure capability enables a passion for discovery



5320 acres

319 buildings

~4.9M sq ft

35 miles paved roads

Large accelerator footprint

Large user population
(>4,000 growing to ~6,000)

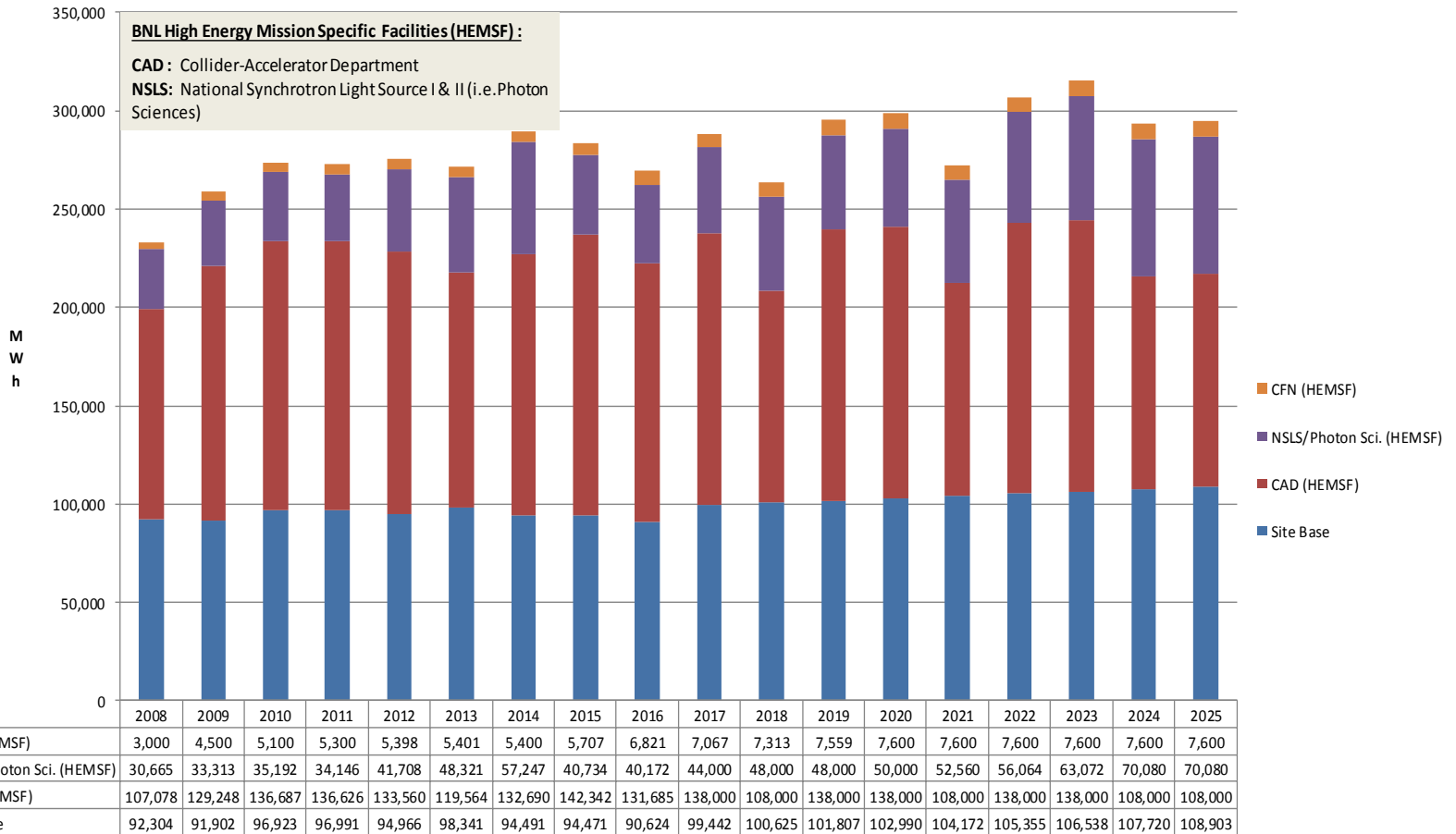
On-site housing for ~550
people

Self contained utility system
9.7 miles chilled water piping
35.4 miles potable water piping
10.2 miles steam/condensate pipes

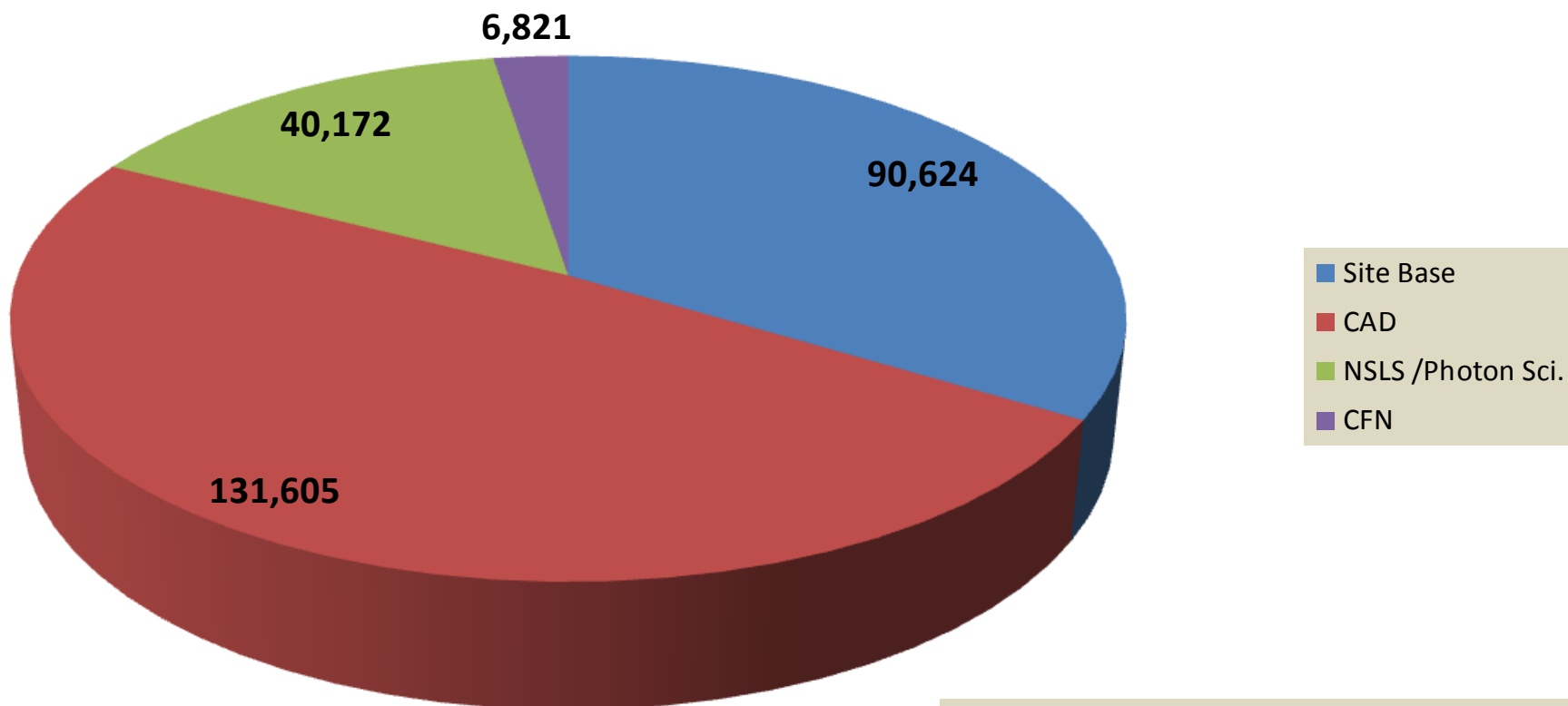
Electricity Use at BNL

BNL Historical and Projected Electricity

BNL continues to develop a plan in the SSP to reduce/offset the estimated increase in Greenhouse Gas (GHG) emissions that exceed the 50% reduction target by 2025 as compared to the base year of 2008. BNL's sustainability initiative will require major infrastructure and other investments.



BNL Electricity Usage - 2016



Values in MWh
1 MWh = 1,000 kWh
Average L.I. home ~ 9,000 kWh

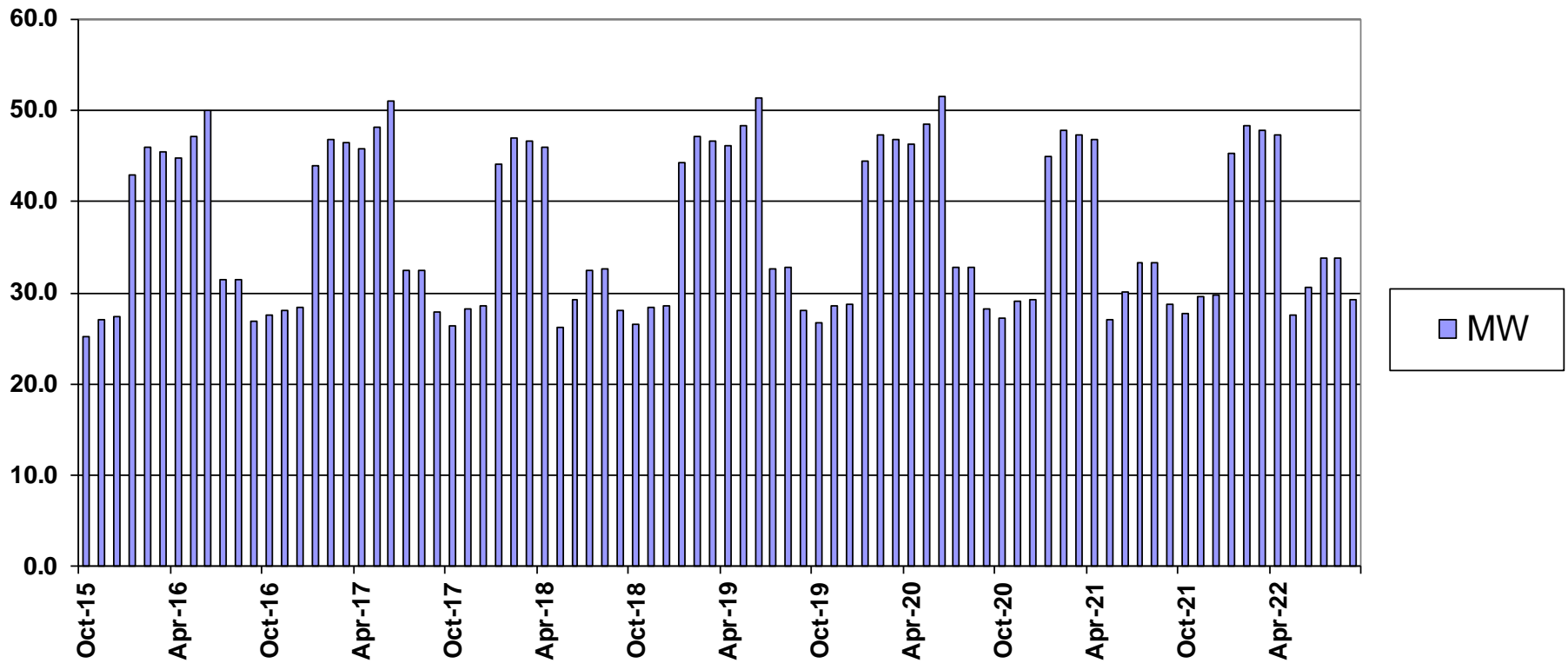
BNL High Energy Mission Specific Facilities (HEMSF):

CAD : Collider-Accelerator Department
NSLS: National Synchrotron Light Source I & II (i.e. Photon Sciences)
CFN: Center for Functional Nanmaterials

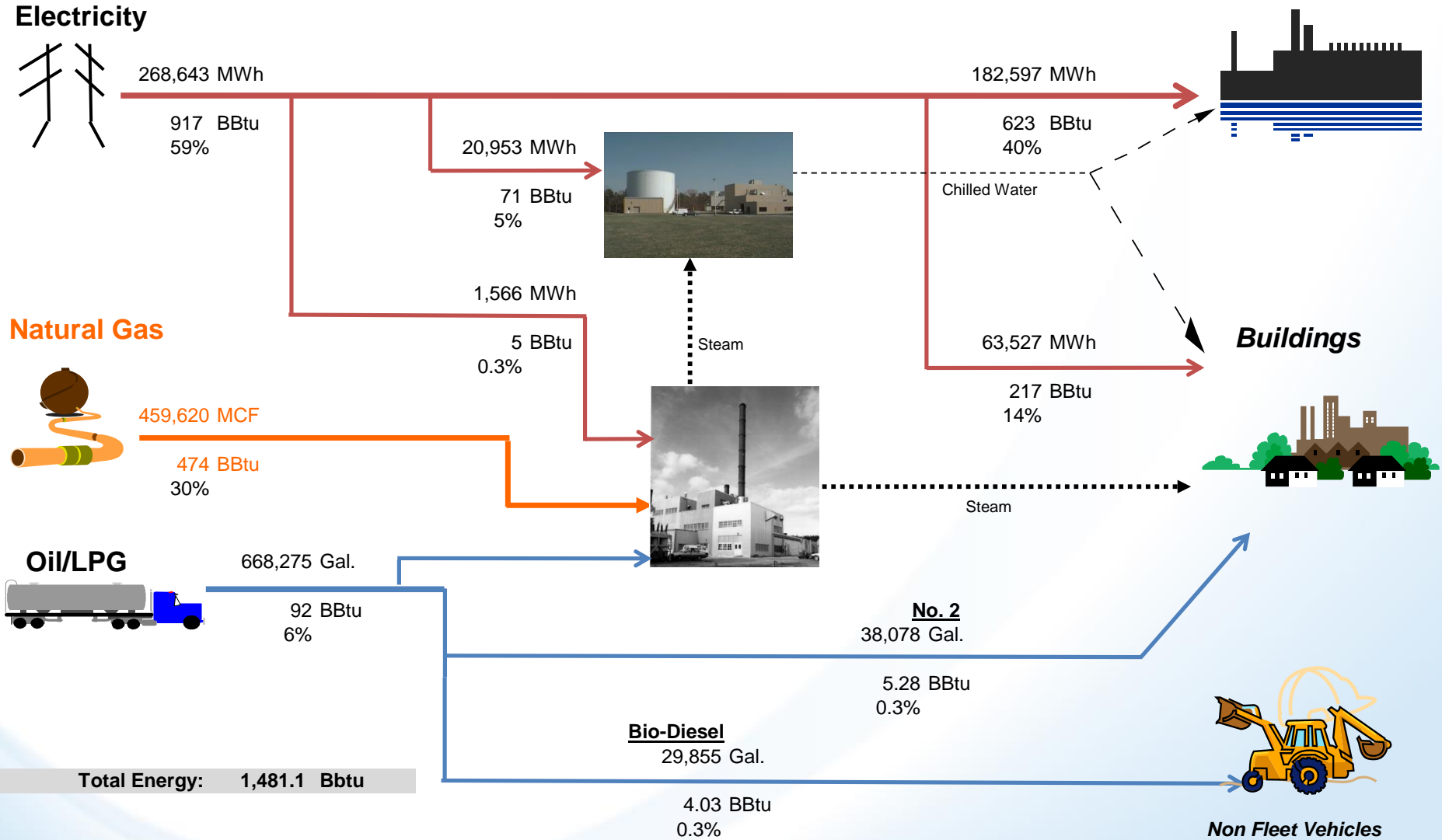
Electric Demand Profile

Brookhaven National Laboratory Electric Load Projection

Revised December 2016



Brookhaven National Laboratory Energy Use FY2016



BNL Electric Use and Demand

