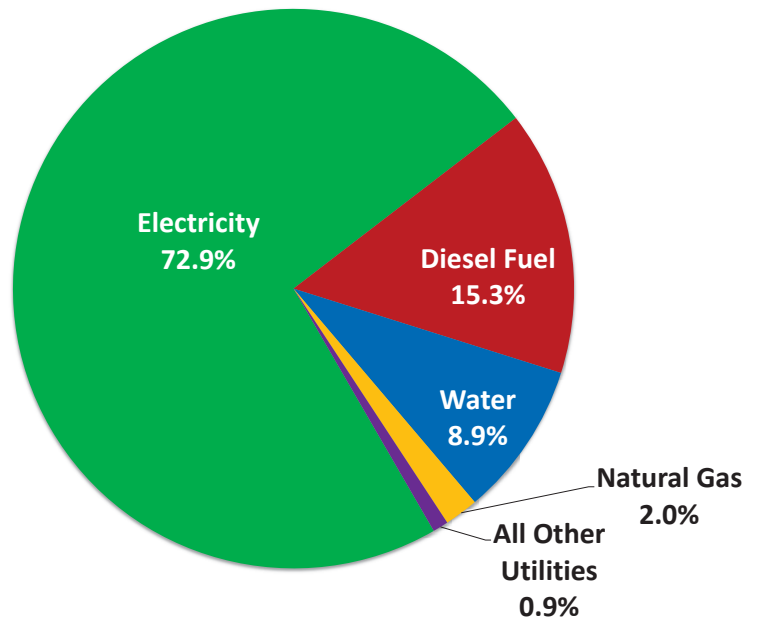


Table 27

<b>Proposed Fiscal Year 2016</b> <b>Utilities Summary</b> (\$s)				
<i>Line Item/Description</i>	<i>Final FY15</i>	<i>Proposed FY16</i>	<i>Δ (\$s)</i>	<i>Δ (%)</i>
<b>Electricity</b> Most facilities are powered by Electricity including DITP and CWTP.	\$16,967,886	\$18,123,442	\$1,155,556	6.8%
<b>Diesel Fuel</b> Heating, CTGs at DITP, and other backup generators.	3,710,592	3,809,352	98,760	2.7%
<b>Water</b> A "pass-through" cost to account for Water; self-supplied.	2,070,604	2,224,031	153,427	7.4%
<b>Natural Gas</b> Primarily used for heating various MWRA facilities	516,027	485,581	-30,446	-5.9%
<b>All Other Utilities</b> Oxygen, #2 Fuel Heating Oil, Propane, and all Other Utilities.	207,246	222,150	14,904	7.2%
<b>TOTAL UTILITIES EXPENSES</b>	<b>\$23,472,355</b>	<b>\$24,864,556</b>	<b>\$1,392,201</b>	<b>5.9%</b>

### Other Highlights

- Electricity expense increases by \$1.2 million to price increases, especially at Deer Island despite reductions in purchased electricity due to conservation projects
- Increased wind and solar energy generation, hydropower generation, use of steam generation at Deer Island, and improved energy efficiency continue to reduce the amount of purchased electricity over the last several years
- Electricity prices in New England are driven by natural gas pricing rather than oil prices
- The increase of \$99 thousand for diesel fuel and the decrease of \$30 thousand for natural gas are both largely due to changes in quantities purchased. For diesel, the Authority has tried to capitalize on low prices by filling reserve tanks. For natural gas, purchases have decreased, with no change in price assumed.
- Natural gas use at the Fore River pelletizing plant is part of the NEFCo monthly charge, under the Other Services budget category. The Authority has included \$3.03 million for natural gas (+7% from FY15), and another \$1.43 million for electricity (+9% from FY15) for utilities under the NEFCo contract.



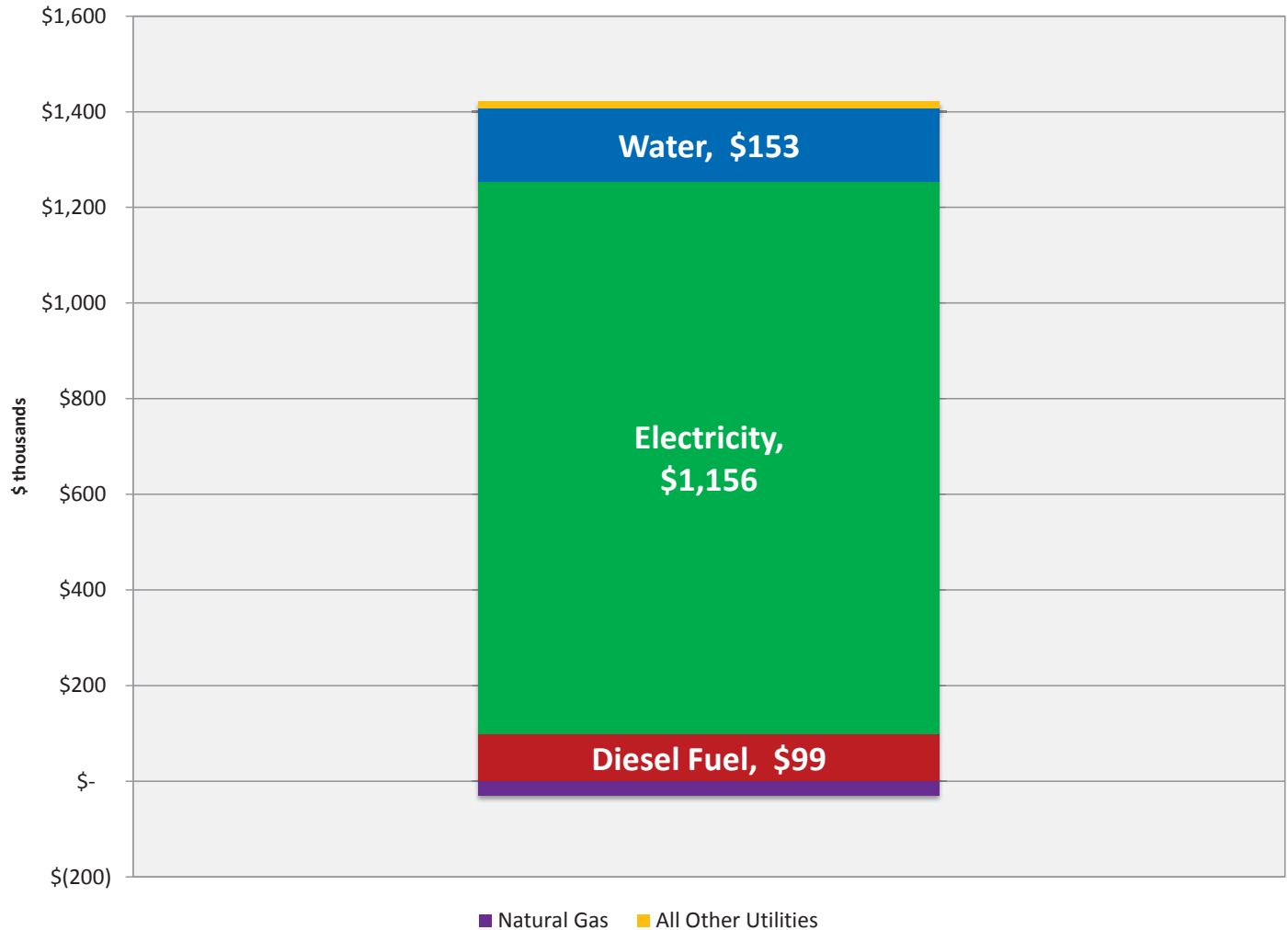


Figure 31

### Electricity

- FY16 Deer Island electricity: \$10.56 million
  - Increase from FY15: \$239 thousand
  - Increase from FY14: \$199 thousand
  - Driver: price increases, not quantity
- FY16 Deer Island electricity usage: 148.8 million kWh
  - Reduction from FY15: -1.2 million kWh
- Total self-generation of electricity increases by 6.4% in FY16 due to maintenance of the steam turbine generators (STGs) in FY15, the largest source of renewable energy; represents 30% of all electricity demand on the island
- Total purchased electricity: 103.9 million kWh
  - Lowest in at least five years; 4.2% reduction from FY15

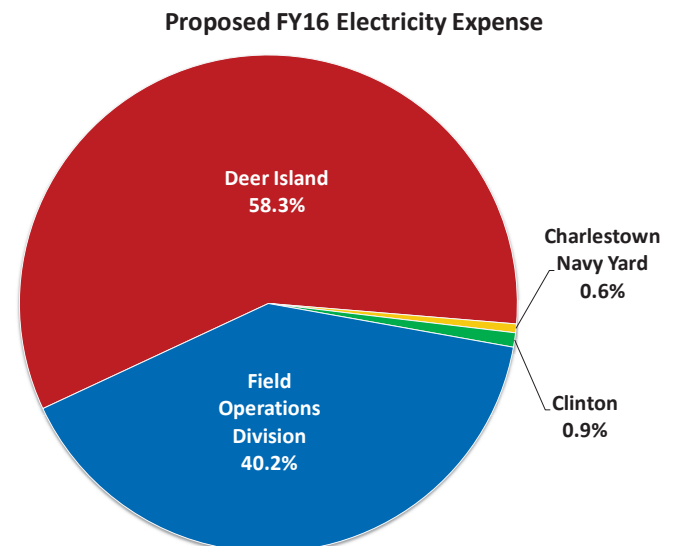


Figure 32

- Energy conservation and efficiency projects continue to bring purchased electricity amounts down (even with the small reductions in projected self-generation due to maintenance)
- The Authority continues to pursue a number of demand-side changes and initiatives
- Field Operations Department (FOD) facilities electricity expense increase: \$898 thousand (+14%)
  - Usage is essentially flat from FY15 to FY16; increase is due to pricing

### Diesel Fuel

- FY16 diesel fuel budget: \$3.8 million
  - Deer Island: \$1.89 million
  - All other Wastewater Facilities: \$1.74 million
  - Water facilities: \$0.18 million
- Deer Island usage remains level while pricing decreases
  - Increase in gallons purchased: 12.7%
  - FY15 price assumption: \$3.20/gallon
  - FY16 price assumption: \$3.05/gallon
- Field Operations Department usage increases while pricing decreases
  - Purchases decrease -1.7% from FY15
  - FY15 price assumption: \$3.50/gallon
  - FY16 price assumption: \$3.50/gallon

### Natural Gas

- FY16 natural gas expense: \$485.6 thousand
  - Reduction from FY15: -\$30 thousand
- Natural gas is used at a number of facilities in the Field Operations Department

***Being made aware of pricing and usage trends, the Advisory Board expects the Authority to decrease its FY16 CEB “utilities” line item. The Advisory Board’s estimate of this reduction is \$1,600,000.***