



Leidos assessed the relative pros and cons for each of these different fuel sources along a number of objective criteria related to the critical issues of: 1) Reliability; 2) Environmental Impact; and 3) Economics. Industry-recognized data sources, combined with Leidos insights from over 60 years of energy industry experience were used to prepare the analysis.

Each fuel source's performance on a common unit of measurement is provided to allow for comparison among the different fuels. When a range of values is possible, the fuel source has been shown "in its own best light." For example, wind capacity factors can vary greatly across the U.S., but for this analysis, wind capacity factor is represented for the best region for locating wind power plants.

The focus of the Leidos analysis is the point of end use (such as the "burnertip" of a power generation plant.) The Leidos analysis does not present a "life cycle" analysis. For example, the emissions presented for natural gas-fired power generation are emissions at the power generation plant and do not include emissions that may occur during the extraction process for natural gas fuel.

Sincerely,  
**Leidos Engineering, LLC**

## Economic Factors

### Natural Gas – Combined Cycle

Capital Cost/kW – excludes financing costs	\$ 1,104
Fixed O&M (\$/kW-year – includes owners costs	\$ 15.37
Variable O&M (\$/kW-year – includes major maint.	\$ 3.27
Average Non Fuel Operating Cost (\$/MWh)	\$ 5.97
Fuel Cost (\$/MWh) *	\$ 29.67
Typical Construction Period	48 months total (30 months construction)

Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 1,324,800
Average Annual Operating Cost	\$ 40,787
Average Annual Fuel Cost	\$ 202,750
Average Annual Operating & Fuel Cost	\$ 243,537
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$ 1,568,337

Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 193,888
Average Annual Operating Cost	\$ 5,969
Average Annual Fuel Cost*	\$ 29,673
Average Annual Operating & Fuel Cost	\$ 35,642
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$ 229,531

**Levelized** Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$200,251
Average Annual Operating Cost	\$ 25,666
Average Annual Fuel Cost	\$202,750
Average Annual Operating & Fuel Cost	\$228,415
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$428,666

**Levelized** Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$ 29,307
Average Annual Operating Cost	\$ 3,756
Average Annual Fuel Cost*	\$ 29,673
Average Annual Operating & Fuel Cost	\$ 33,429
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$ 62,737

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Coal – APC

Capital Cost/kW -- excludes financing costs	\$ 3,636
Fixed O&M (\$/kW-year – includes owners costs	\$ 37.80
Variable O&M (\$/kW-year – includes major maint.	\$ 4.47
Average Non Fuel Operating Cost (\$/MWh)	\$ 9.86
Fuel Cost (\$/MWh) *	\$20.59
Typical Construction Period	46 to 50 months construction. Total time from planning start is approximately 72 months

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 4,363,200
Average Annual Operating Cost	\$ 82,951
Average Annual Fuel Cost	\$ 173,170
Average Annual Operating & Fuel Cost	\$ 256,121
Total (Op. & Fuel Cost + Capital Cost)	\$ 4,619,321

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 518,836
Average Annual Operating Cost	\$ 9,864
Average Annual Fuel Cost*	\$ 20,592
Average Annual Operating & Fuel Cost	\$ 30,456
Total (Op. & Fuel Cost + Capital Cost)	\$ 549,291

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$623,075
Average Annual Operating Cost	\$ 89,204
Average Annual Fuel Cost	\$173,170
Average Annual Operating & Fuel Cost	\$262,375
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$885,450

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$ 74,091
Average Annual Operating Cost	\$ 10,607
Average Annual Fuel Cost*	\$ 20,592
Average Annual Operating & Fuel Cost	\$ 31,199
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$105,290

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Coal – APC with CCS (carbon capture and storage)

Capital Cost/kW (excludes financing costs)	\$ 5,084
Fixed O&M (\$/kW-year – includes owners costs)	\$ 80.53
Variable O&M (\$/kW-year – includes major maint.)	\$ 9.51
Average Non Fuel Operating Cost (\$/MWh)	\$ 21.00
Fuel Cost (\$/MWh) *	\$ 22.82
Typical Construction Period	Front end engineering and design (FEED) of about 12 months. 36 to 42 months from Start of Construction to Final Completion

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 6,100,800
Average Annual Operating Cost	\$ 176,611
Average Annual Fuel Cost	\$ 191,865
Average Annual Operating & Fuel Cost	\$ 368,476
Total (Op. & Fuel Cost + Capital Cost)	\$ 6,469,276

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 725,457
Average Annual Operating Cost	\$ 21,001
Average Annual Fuel Cost	\$ 22,815
Average Annual Operating & Fuel Cost	\$ 43,816
Total (Op. & Fuel Cost + Capital Cost)	\$ 769,273

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$ 871,209
Average Annual Operating Cost	\$ 143,708
Average Annual Fuel Cost	\$ 191,865
Average Annual Operating & Fuel Cost	\$ 335,573
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$1,206,782

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$ 103,597
Average Annual Operating Cost	\$ 17,089
Average Annual Fuel Cost*	\$ 22,815
Average Annual Operating & Fuel Cost	\$ 39,904
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$143,501

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*, Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Advanced Nuclear

Capital Cost/kW (excludes financing costs)	\$ 5,945
Fixed O&M (\$/kW-year – includes owners costs)	\$ 93.28
Variable O&M (\$/kW-year – includes major maint.)	\$ 2.14
Average Non Fuel Operating Cost (\$/MWh)	\$ 13.97
Fuel Cost (\$/MWh) †	\$ 7.28
Typical Construction Period	Estimated at 10 years from permitting to completion

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 7,134,000
Average Annual Operating Cost	\$ 132,182
Average Annual Fuel Cost	\$ 68,875
Average Annual Operating & Fuel Cost	\$ 201,057
Total (Op. & Fuel Cost + Capital Cost)	\$ 7,335,057

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 754,059
Average Annual Operating Cost	\$ 13,972
Average Annual Fuel Cost	\$ 7,280
Average Annual Operating & Fuel Cost	\$ 21,252
Total (Op. & Fuel Cost + Capital Cost)	\$ 775,310

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$1,043,993
Average Annual Operating Cost	\$ 142,096
Average Annual Fuel Cost	\$ 70,956
Average Annual Operating & Fuel Cost	\$ 213,052
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$1,257,045

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$110,349
Average Annual Operating Cost	\$ 15,019
Average Annual Fuel Cost*	\$ 7,500
Average Annual Operating & Fuel Cost	\$ 22,519
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$132,869

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Hydro

Capital Cost/kW (excludes financing costs)	\$ 2,936
Fixed O&M (\$/kW-year – includes owners costs)	\$ 14.13
Variable O&M (\$/kW-year – includes major maint.)	-
Average Non Fuel Operating Cost (\$/MWh)	\$ 3.23
Fuel Cost (\$/MWh) *	N/A
Typical Construction Period	18 months

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 3,523,200
Average Annual Operating Cost	\$ 16,956
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 16,956
Total (Op. & Fuel Cost + Capital Cost)	\$ 3,540,156

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 670,320
Average Annual Operating Cost	\$ 3,226
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 3,226
Total (Op. & Fuel Cost + Capital Cost)	\$ 673,546

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$507,600
Average Annual Operating Cost	\$ 16,956
Average Annual Fuel Cost	0
Average Annual Operating & Fuel Cost	\$ 16,956
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$524,556

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$96,575
Average Annual Operating Cost	\$ 3,226
Average Annual Fuel Cost*	0
Average Annual Operating & Fuel Cost	\$ 3,226
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$99,801

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Geothermal<sup>‡</sup> (costs not calculated with any incentives, tax, policy or otherwise)

Capital Cost/kW (excludes financing costs)	\$ 4,362
Fixed O&M (\$/kW-year – includes owners costs)	\$ 100.00
Variable O&M (\$/kW-year – includes major maint.)	-
Average Non Fuel Operating Cost (\$/MWh)	\$ 13.43
Fuel Cost (\$/MWh) *	N/A
Typical Construction Period	50 months (including 32 months of construction)

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 5,234,400
Average Annual Operating Cost	\$ 120,000
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 120,000
Total (Op. & Fuel Cost + Capital Cost)	\$ 5,354,400

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 585,818
Average Annual Operating Cost	\$ 13,430
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 13,430
Total (Op. & Fuel Cost + Capital Cost)	\$ 599,248

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$791,209
Average Annual Operating Cost	\$120,000
Average Annual Fuel Cost	\$ 0
Average Annual Operating & Fuel Cost	\$120,000
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$911,209

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$ 88,550
Average Annual Operating Cost	\$ 13,430
Average Annual Fuel Cost*	0
Average Annual Operating & Fuel Cost	\$ 13,430
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$101,980

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Biomass – MSW‡(costs not calculated with any incentives, tax, policy or otherwise)

Capital Cost/kW (excludes financing costs)	\$ 8,312
Fixed O&M (\$/kW-year – includes owners costs)	\$ 392.82
Variable O&M (\$/kW-year – includes major maint.)	\$ 8.75
Average Non Fuel Operating Cost (\$/MWh)	\$ 64.80
Fuel Cost (\$/MWh) *	N/A
Typical Construction Period	Development to Commercial Operation ~42 months

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 9,974,400
Average Annual Operating Cost	\$ 544,968
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 544,968
Total (Op. & Fuel Cost + Capital Cost)	\$ 10,519,368

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 1,186,073
Average Annual Operating Cost	\$ 64,803
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 64,803
Total (Op. & Fuel Cost + Capital Cost)	\$ 1,250,876

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$1,370,833
Average Annual Operating Cost	\$ 544,968
Average Annual Fuel Cost	\$ 0
Average Annual Operating & Fuel Cost	\$ 544,968
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$1,915,801

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$163,008
Average Annual Operating Cost	\$ 64,803
Average Annual Fuel Cost*	\$ 0
Average Annual Operating & Fuel Cost	\$ 64,803
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$227,811

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*, Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector



**Biomass – BFB** ‡(costs not calculated with any incentives, tax, policy or otherwise)

Capital Cost/kW (excludes financing costs)	\$ 4,985
Fixed O&M (\$/kW-year – includes owners costs)	\$ 105.63
Variable O&M (\$/kW-year – includes major maint.)	\$ 5.26
Average Non Fuel Operating Cost (\$/MWh)	\$ 21.34
Fuel Cost (\$/MWh) *	\$ 33.75
Typical Construction Period	Development to Commercial Operation ~34 months

Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 5,982,000
Average Annual Operating Cost	\$ 168,226
Average Annual Fuel Cost	\$ 266,085
Average Annual Operating & Fuel Cost	\$ 434,311
Total (Op. & Fuel Cost + Capital Cost)	\$ 6,416,311

Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 758,752
Average Annual Operating Cost	\$ 21,338
Average Annual Fuel Cost	\$ 33,750
Average Annual Operating & Fuel Cost	\$ 55,088
Total (Op. & Fuel Cost + Capital Cost)	\$ 813,840

**Levelized** Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$ 904,212
Average Annual Operating Cost	\$ 165,113
Average Annual Fuel Cost	\$ 275,940
Average Annual Operating & Fuel Cost	\$ 441,053
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$1,345,263

**Levelized** Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$114,690
Average Annual Operating Cost	\$ 20,943
Average Annual Fuel Cost*	\$ 35,000
Average Annual Operating & Fuel Cost	\$ 55,943
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$170,632

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*, Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Solar – Photovoltaic<sup>‡</sup>(costs not calculated with any incentives, tax, policy or otherwise)

Capital Cost/kW (excludes financing costs)	\$ 2,671
Fixed O&M (\$/kW-year – includes owners costs)	\$ 24.69
Variable O&M (\$/kW-year – includes major maint.)	-
Average Non Fuel Operating Cost (\$/MWh)	\$ 14.09
Fuel Cost (\$/MWh) *	N/A
Typical Construction Period	20 months

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 3,205,200
Average Annual Operating Cost	\$ 29,628
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 29,628
Total (Op. & Fuel Cost + Capital Cost)	\$ 3,234,828

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 1,524,543
Average Annual Operating Cost	\$ 14,092
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 14,092
Total (Op. & Fuel Cost + Capital Cost)	\$ 1,538,636

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$481,490
Average Annual Operating Cost	\$ 28,080
Average Annual Fuel Cost	\$ 0
Average Annual Operating & Fuel Cost	\$ 28,080
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$509,571

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$229,020
Average Annual Operating Cost	\$ 13,356
Average Annual Fuel Cost*	\$ 0
Average Annual Operating & Fuel Cost	\$ 13,356
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$242,376

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Solar – Tracker Photovoltaic<sup>‡</sup>(costs not calculated with any incentives, tax, policy or otherwise)

Capital Cost/kW (excludes financing costs)	\$ 2,534
Fixed O&M (\$/kW-year – includes owners costs)	\$ 67.26
Variable O&M (\$/kW-year – includes major maint.)	-
Average Non Fuel Operating Cost (\$/MWh)	\$ 25.59
Fuel Cost (\$/MWh) *	N/A
Typical Construction Period	20 months

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 3,040,800
Average Annual Operating Cost	\$ 80,712
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 80,712
Total (Op. & Fuel Cost + Capital Cost)	\$ 3,121,512

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 964,231
Average Annual Operating Cost	\$ 25,594
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 25,594
Total (Op. & Fuel Cost + Capital Cost)	\$ 989,825

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$456,795
Average Annual Operating Cost	\$ 26,160
Average Annual Fuel Cost	\$ 0
Average Annual Operating & Fuel Cost	\$ 26,160
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$482,955

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$144,849
Average Annual Operating Cost	\$ 8,295
Average Annual Fuel Cost*	\$ 0
Average Annual Operating & Fuel Cost	\$ 8,295
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$153,144

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Wind – Onshore ‡(costs not calculated with any incentives, tax, policy or otherwise)

Capital Cost/kW (excludes financing costs)	\$ 1,877
Fixed O&M (\$/kW-year – includes owners costs)	\$ 39.55
Variable O&M (\$/kW-year – includes major maint.)	-
Average Non Fuel Operating Cost (\$/MWh)	\$ 11.29
Fuel Cost (\$/MWh) *	N/A
Typical Construction Period	Best Case 14 months (in some case can take up to two years for development, land acquisition, and wind data collection)

### Cost (dollars) per Thousand Households Served

Upfront Capital Cost	\$ 2,252,400
Average Annual Operating Cost	\$ 47,460
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 47,460
Total (Op. & Fuel Cost + Capital Cost)	\$ 2,299,860

### Cost (dollars) per Thousand MWh

Upfront Capital Cost	\$ 535,674
Average Annual Operating Cost	\$ 11,287
Average Annual Fuel Cost	-
Average Annual Operating & Fuel Cost	\$ 11,287
Total (Op. & Fuel Cost + Capital Cost)	\$ 546,961

### Levelized Cost (dollars) per Thousand Households Served

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$338,360
Average Annual Operating Cost	\$ 47,640
Average Annual Fuel Cost	\$ 0
Average Annual Operating & Fuel Cost	\$ 47,640
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$386,000

### Levelized Cost (dollars) per Thousand MWh

(Levelized cost = net present value of the unit-cost of electricity over the lifetime of a generating asset)

Levelized Capital Cost	\$80,470
Average Annual Operating Cost	\$11,330
Average Annual Fuel Cost*	\$ 0
Average Annual Operating & Fuel Cost	\$11,330
Total (Avg. Annual Op. & Fuel Cost + Capital Cost)	\$91,800

\*Fuel costs in MWh are based on *EIA Electric Power Monthly I*,  
Jan 2009-Dec. 2015, Average cost of fuels to the electric power sector

## Legend

Coal APC - standard coal burning operations using advanced pollution control (APC) technology; currently in wide use

Coal CCS - coal plant using carbon capture & sequestration (CCS) technology; several demo projects underway, but not yet commercially viable

Biomass MSW (waste) - burns municipal solid waste

Biomass BFB (wood) - utilizes bubbling fluidized bed technology - typical biomass consists of wood chips, construction and demolition wood, bark, residual logging debris, saw dust, paper rejects, and paper and/or sewage sludge

## NOTES

\* Fuel Cost in \$/MWh based on EIA - Electric Power Monthly I for Jan 2009 - December 2015 - Average cost of fuels to the electric power sector. For Biomass, fuel cost varies with type of fuel.

† Nuclear fuel cost based on 2012 reported cost by US operating plants (Nuclear Energy Institute)

‡ Biomass, Solar, Wind, Geothermal: Costs not calculated with any incentives, tax, policy, or otherwise

Coal \$/MMBtu 2009-2015	2.34
Natural Gas \$/MMBtu 2009-2015	4.71

**Source:** US EIA Electric Power Monthly 2009-2015

## Comparison of Fuels Used for Electric Generation in the U.S., 2016 Update

Leidos – Copyright 2016 – Natural Gas Supply Association – NGSA.org