

# Market Conditions Report

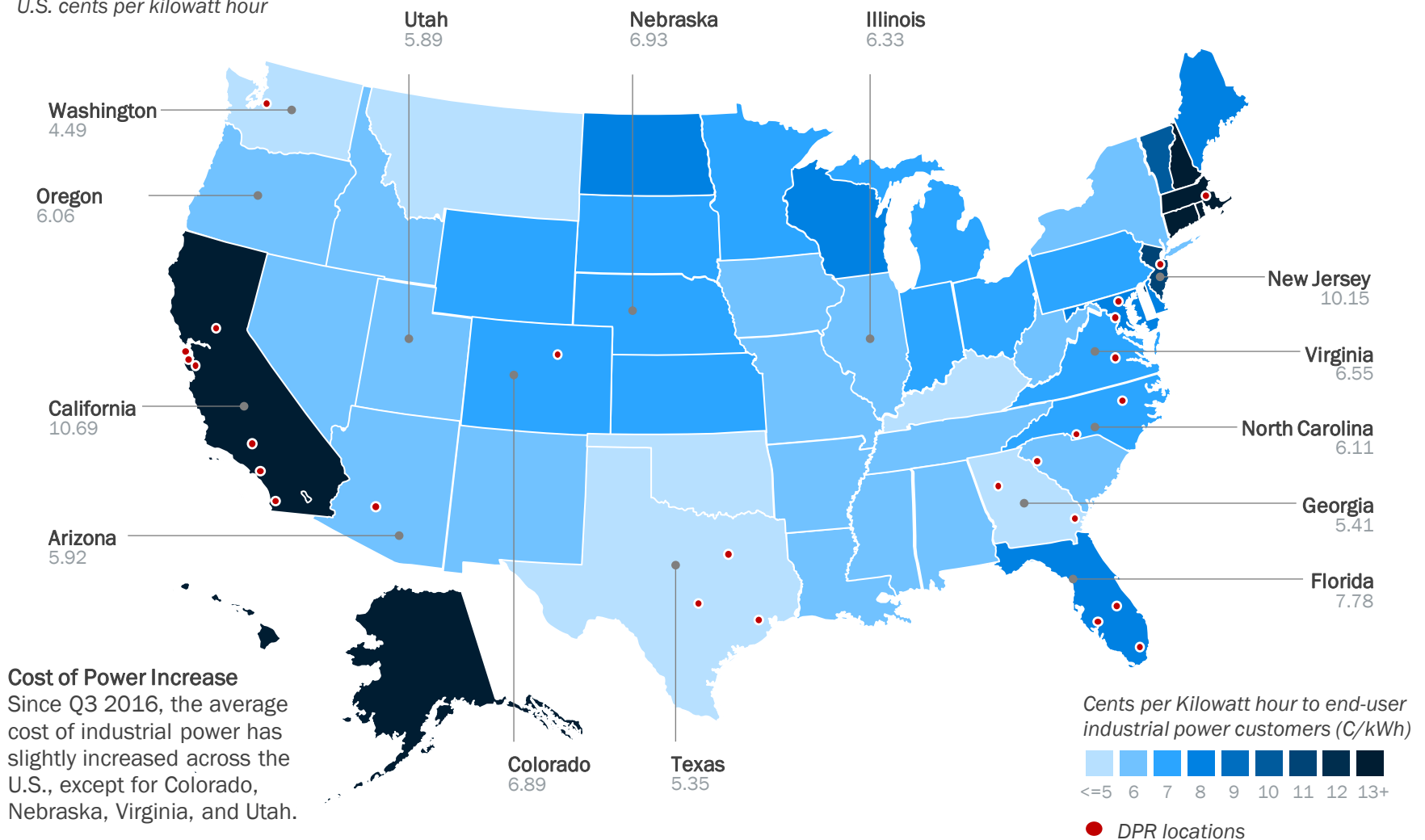


## 9 Things to Consider Before Building Your Data Center

The following Market Conditions Report summarizes current cost trends in nine key areas to consider when developing your next project. Some of the cost elements presented will directly affect construction (e.g. copper, aluminum, steel and concrete pricing, labor rates); some will indirectly affect construction (e.g. oil pricing, nonresidential and domestic construction spending). Other factors, such as the cost of power, will directly affect the cost of your facility operations.

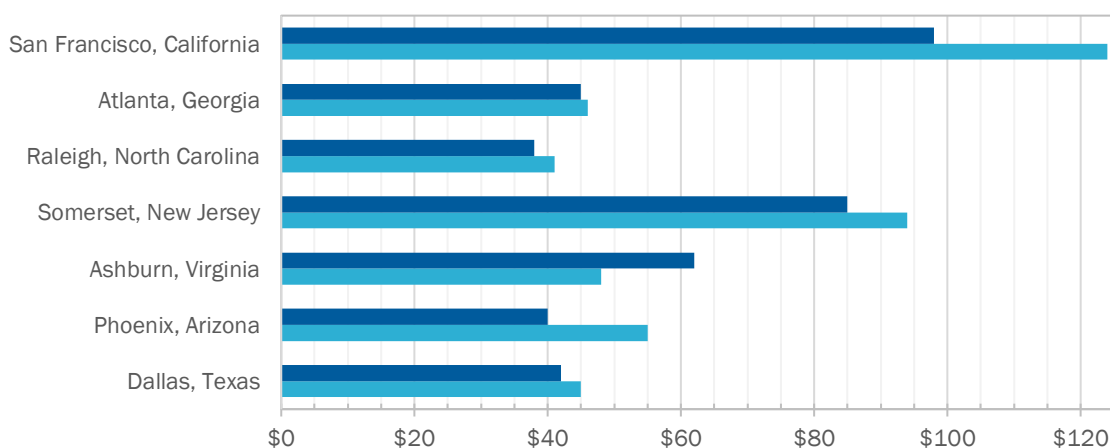
### 1. Cost of Power

U.S. cents per kilowatt hour



### 2. Mechanical, Electrical, Plumbing Labor Rates

MEP union journeyman base labor and fringe total rates per hour. Does not include subcontractor burdens and mark-ups.

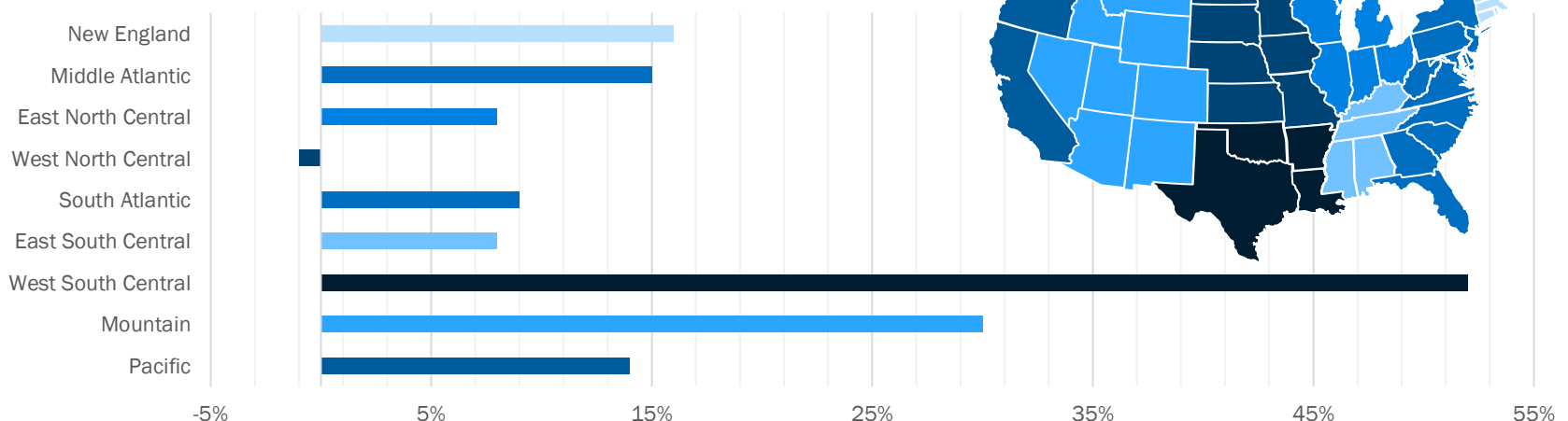


#### MEP Labor Rates

MEP unions are reporting a promising outlook for workers in 2017. Labor premiums may apply in the Pacific Northwest and Texas due to the volume of work and shortage of skilled workers.

### 3. Nonresidential Construction Spending

Estimated variance by region, 2015-2016. Actuals to be confirmed in Q3/Q4 2017 report.



Published April 2017. Next issue scheduled to be published in August 2017.

1 [http://www.eia.gov/electricity/monthly/epm\\_table\\_grapher.cfm?t=epmt\\_5\\_6\\_a](http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_6_a)

2 Construction Trade Unions UA and IBEW 2016. Base wages only.

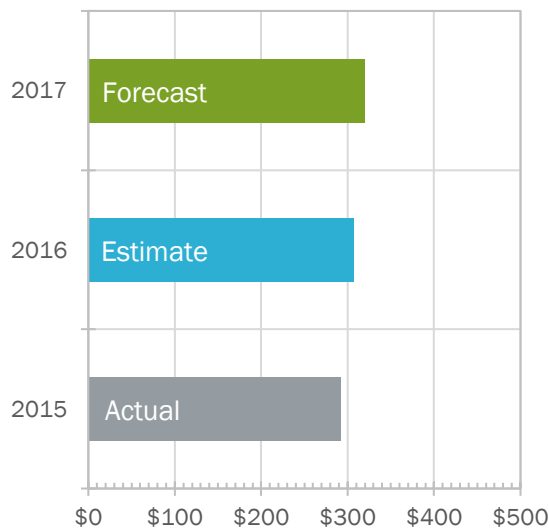
3 Preliminary data from US Census. Private Nonresidential Construction excludes the following categories: Power, Communication, and Railroad.

# Market Conditions Report



## 4. Domestic Construction Spending

Commercial and industrial construction sectors, in billions



### Domestic Construction

Domestic construction spending in the commercial and industrial sectors has steadily risen over the past two years, rising an estimated 5.0% in 2016 and forecasting to rise another 4.2% in 2017.

## 5. Copper Pricing

International cost per pound



### Copper

Copper pricing rose post-election in November 2016 and has leveled off in early 2017 between \$2.60-2.80 per pound. Pricing is anticipated to remain constant for the near future.

## 6. Aluminum Pricing

International cost per pound

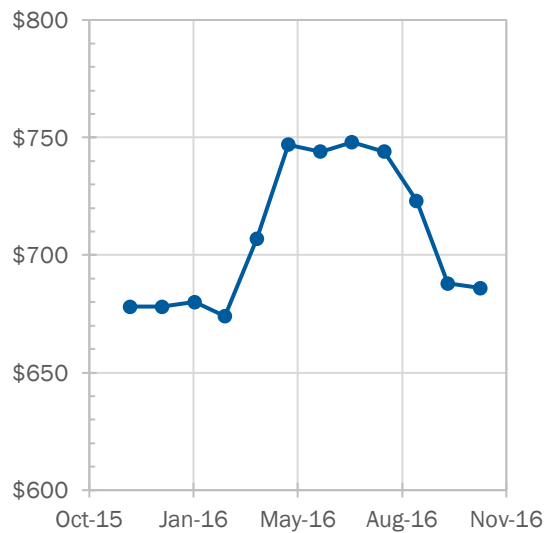


### Aluminum

The one-year range on aluminum pricing is a steady \$0.19 per pound increase, month over month. This trend is expected to steadily continue.

## 7. Steel Pricing

Prefab structural sections and beams, U.S. price per ton

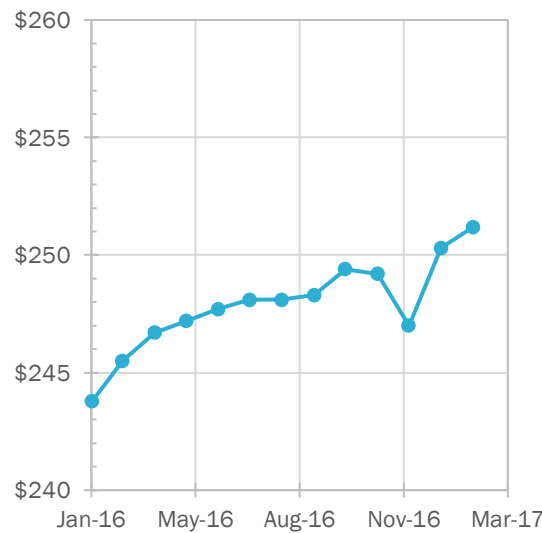


### Steel

Since mid-2016, steel pricing has declined due to the vast amount of Chinese steel reserves stocked in the U.S. As of Q4 2016, pricing has leveled off around \$670 per ton. Pricing is expected to increase in 2017 if the production of Chinese steel decreases.

## 8. Concrete Pricing

U.S. Producer Price Index, price per cubic yard

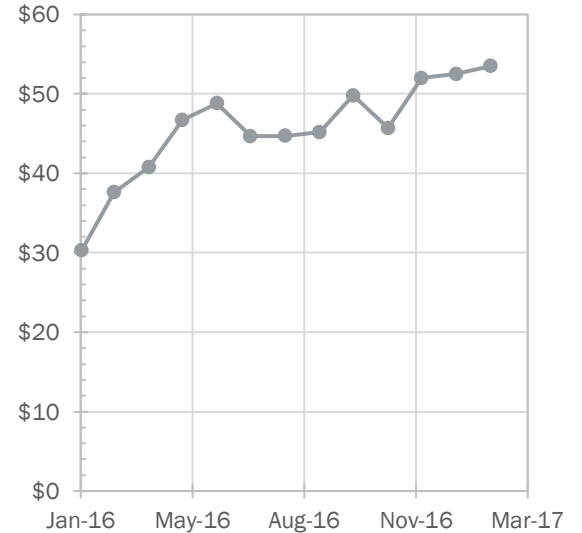


### Concrete

The one-year range on concrete pricing is a \$7 increase per cubic yard of ready mix concrete. This is 50% more than the reported annual inflation rate.

## 9. Oil Pricing

U.S. price per barrel



### Oil

Oil pricing continues to increase. The one-year range is an increase of \$23 per barrel, from \$30 DPB to \$53 DPB (or 80%).

## Meet the Mission Critical Leadership Team



**Mark Thompson**  
Advanced Technology  
Core Market Leader  
[markt@dpr.com](mailto:markt@dpr.com)  
(650) 867-4781



**David Ibarra**  
Project Executive  
Northwest and Int'l.  
[davidi@dpr.com](mailto:davidi@dpr.com)  
(650) 814-1181



**Tom Maples, P.E.**  
Project Executive  
Southwest  
[thomasm@dpr.com](mailto:thomasm@dpr.com)  
(602) 920-1221



**Jeffrey Mason**  
Project Executive  
Southeast  
[jeffm@dpr.com](mailto:jeffm@dpr.com)  
(404) 395-9592



**Brett Korn**  
Project Executive  
Northeast  
[brettk@dpr.com](mailto:brettk@dpr.com)  
(917) 734-8342

DPR Construction's team of mission critical operatives can help steer the process – taking a project from site selection and analysis to single point-of-failure identification during start-up and commissioning. Specializing in highly complex and sustainable projects, DPR ranks among the top data center contractors in the nation with seasoned teams of estimators, MEP specialists, and program, design and construction managers and engineers working around the world.

4 AIA Consensus Forecast FMI Randy Giggard (919) 785-9258  
5 [http://www.kitcometals.com/charts/copper\\_historical\\_large.html#1year](http://www.kitcometals.com/charts/copper_historical_large.html#1year)  
6 [http://www.kitcometals.com/charts/aluminum\\_historical\\_large.html#1year](http://www.kitcometals.com/charts/aluminum_historical_large.html#1year)  
7 <http://www.meps.co.uk/N.Amer%20Price.htm>  
8 [http://www.bls.gov/regions/mid-atlantic/data/producerpriceindexconcrete\\_us\\_table.htm](http://www.bls.gov/regions/mid-atlantic/data/producerpriceindexconcrete_us_table.htm)  
9 <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RWTC&f=M>