By Gary J. Tulacz

Industry Execs Worry About Delays in Trump Agenda

When will Congress get around to tax reform and an infrastructure stimulus plan?

The construction market remains strong, but construction firms that were excited about the pro-business agenda of President Trump immediately after his election in November are now moderating their long-term outlook.

Most executives believe the market will continue to grow for another year, but many believe the boom will begin to level off in 2019 unless the Trump administration shows more progress on its pro-growth initiatives.

The new caution can be seen in the results of the ENR Construction Industry Confidence Index survey. The CICI fell in the second quarter after rising sharply for two straight quarters. Of the 232 executives of large construction and design firms responding to the survey, most believe market growth will continue at least through the middle of 2018. But beyond that, the execs are less optimistic. The CICI index fell four points to 72 on a scale of 100 from the first quarter of 2017.

The CICI measures executive sentiment about the current market and reflects the respondents' views on where it will be in the next three to six months and over a 12- to 18-month period. The index is based on responses to surveys sent out from May 26 through June 26 to more than 6,000 U.S. firms on ENR's lists of leading general contractors, subcontractors and design firms.

INDUSTRY CONFIDENCE INDEX
72
DECREASES FOUR POINTS

CFMA Survey Sees Cause for Concern

The soon-to-be-released results of the latest Confindex survey from the Construction Financial Management Association, Princeton, N.J., similarly show that executives are growing more wary of what 2018 and beyond will bring to the construction market.

CFMA each quarter polls 200 CFOs from general and civil contractors and subs. The CFMA Confindex is based on four separate financial and market components, each rated on a scale of one to 200. A rating of 100 indicates a stable market; higher ratings show market growth or conditions that should foster growth.

"The overall Confindex fell from 130 in the first quarter to 123 in the current quarter," says Stuart Binstock, CEO of CFMA. Two of the four components of the Confindex also fell dramatically in the first quarter, he notes.

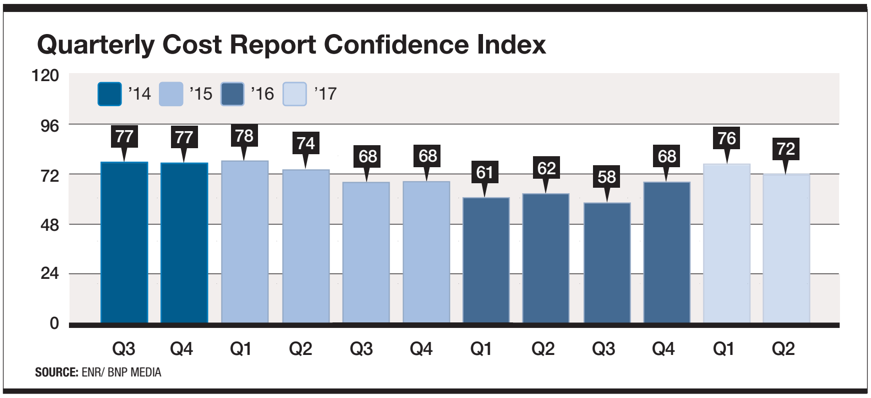
The "general business conditions" component plunged 12 points, to 124, and the "year-ahead outlook" also fell 12 points, to 119, Binstock says. The Confindex "financial conditions" com-

PROSPECTS BY INDIVIDUAL SECTORS BY FIRMS WORKING IN THOSE MARKETS

		CURRENTLY (%)			3-6 MONTHS (%)			12-18 MONTHS (%)		
	NUMBER OF FIRMS	DECLINING ACTIVITY	STABLE ACTIVITY	IMPROVING ACTIVITY	DECLINING ACTIVITY	STABLE ACTIVITY	IMPROVING ACTIVITY	DECLINING ACTIVITY	STABLE ACTIVITY	IMPROVING ACTIVITY
COMMERCIAL OFFICES	167	7	57	35	7	60	32	25	49	26
DISTRIBUTION, WAREHOUSE	112	3	49	48	4	51	46	12	48	40
EDUCATION K-12	118	7	52	42	4	58	37	11	66	23
ENTERTAINMENT, CULTURAL AND THEME PARKS	80	13	60	28	15	54	31	19	56	25
HOSPITALS, HEALTH CARE	141	8	48	44	6	48	45	8	52	40
HIGHER EDUCATION	142	9	53	38	8	56	37	11	61	27
HOTELS, HOSPITALITY	119	5	59	36	11	55	34	18	58	24
MULTI-UNIT RESIDENTIAL	115	12	45	43	14	52	34	29	43	28
RETAIL	119	32	48	20	34	47	18	42	43	15
INDUSTRIAL, MANUFACTURING	109	3	59	39	4	56	40	10	49	41
TRANSPORTATION	78	4	47	49	3	33	64	3	29	68
WATER, SEWER AND WASTE	69	6	64	30	4	54	42	3	54	43
POWER	55	13	47	40	5	51	44	9	44	47
PETROLEUM, PETROCHEMICAL	25	24	52	24	20	52	28	16	40	44
ENVIRONMENTAL, HAZARDOUS WASTE	32	13	72	16	16	63	22	16	69	16

SOURCE: ENR. FIGURES MAY NOT ADD UP TO 100% DUE TO ROUNDING.

69 **U.S. ECONOMY'S CICI RATING** shows construction executives believe the overall U.S. economy is growing slower than the construction market.



Quarterly Cost Report Confidence Index

SOURCE: ENR/ BNP MEDIA

ponent fell a more modest two points, to 123, and the "current market conditions" component declined three points, to 126, Binstock notes.

Much of this decline in confidence comes from the growing realization that much of the Trump agenda is at risk from Congress. "Much of the bounce in the Confindex was from the industry's reaction to November's election: that Trump's agenda could help the industry," says Anirban Basu, CEO of economic consultant Sage Policy Group Inc., Baltimore.

"The real star of the agenda was the $1-trillion infrastructure stimulus proposal," Basu says. But after five months in office, Trump is no closer to fulfilling his promises on infrastructure than he was in January. "Many in the industry believe there won't be an infrastructure package until 2018, if at all," he adds.

Another concern among the CFOs answering the CFMA survey is what financial conditions will be like in 2018. "In our fourth quarter survey, 46% of CFOs believed profits would rise next year," says Binstock.

He further notes that in the first quarter, 40% believed profits would be up in the year ahead, but in the current quarter, only 30% believe profits will be up next year.

"One of the major problems is staff shortages are putting pressure on wages. Wage increases go directly to the bottom line," Binstock says, adding that CFMA members hoped that a rising market would raise revenue and increase margins, offsetting added labor costs. "Now, our members are not so sure."

Going-Out-of-Business Sales

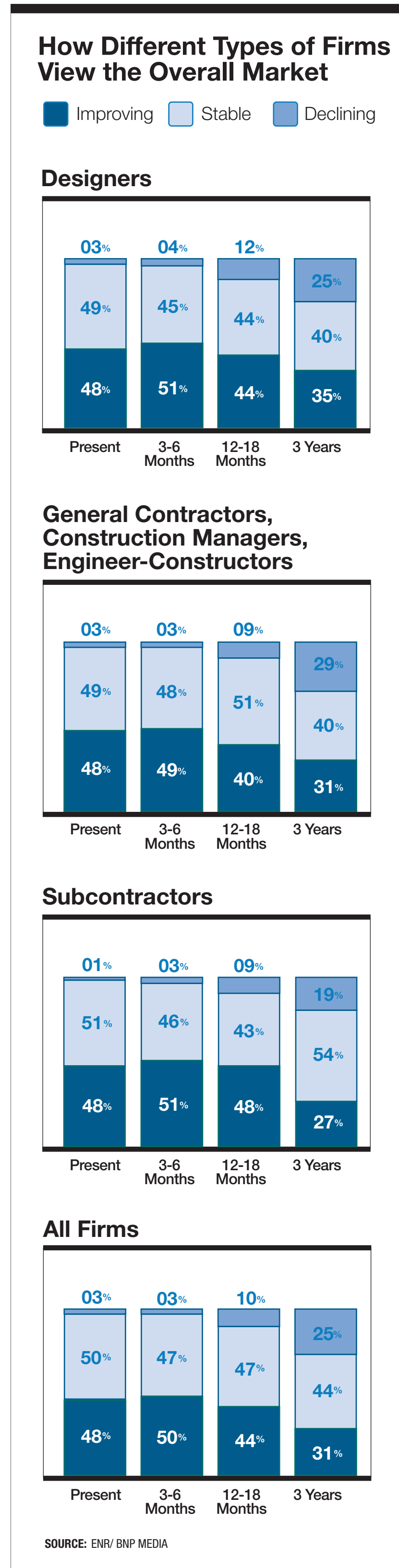
When applying the CICI formula to individual market sectors, confidence in ten of the 15 markets measured by the survey actually rose in the second quarter, compared to last quarter's ratings.

However, execs anticipate the rate of growth will slow over the next 18 months in all nine general building sectors measured by ENR, compared to the current market. On the other hand, executives believed that five of the six non-building sectors would grow more quickly over the next 18 months. Only hazardous waste sagged.

One major economic trend is having an impact on the ENR CICI survey. The growing trend among the public favoring online buying is having a severe impact on the retail market. The retail sector is now the lowest rated of all 15 sectors measured by the survey, with a CICI rating of 43. This rating is down 13 points in just the past six months.

The trend toward online buying has resulted in the lack of demand for new or refurbished stores. Basu says, "There are studies that estimate that there will be as many as 8,600 store closings this year. That is more than in 2008, when we had the financial meltdown."

Overall, construction executives believe that the market will continue to grow through the end of 2018, but wonder whether the market's day of reckoning will come in 2019. "Six months ago, people were not worried about the future. Now they are," Basu says. ■



How Different Types of Firms View the Overall Market

SOURCE: ENR/ BNP MEDIA

By Tim Grogan

After Absorbing Hits, Costs Start To Show Signs of Rising

Labor markets still dealing with the lingering impacts of the most recent recession

A year ago, ENR pondered the impact of two big events: the U.K.'s Brexit vote to leave the European Union and the U.S. government's ruling to increase the tariffs on Chinese cold-rolled flat steel by 522%. As the magazine predicted, neither move had much effect on construction costs. However, another inflationary sleeper, wage costs, is starting to arise. Most labor markets are still dealing with the impact of the last recession, which drove out many skilled workers from the industry. How contractors are meeting that challenge is the major driver of today's costs.

"After more than a decade of flat wage increases in the Davis-Bacon wages we track, we are all of a sudden seeing increases of more than 4%," says Bill Mahoney, president of BNI, which publishes cost-consulting books.

Since the recession, people are starting to come back but they are underskilled, says Julian Anderson, president of Rider Levett Bucknall. "The result is a growing productivity gap, which is starting to show in our numbers," he adds. RLB puts together a seller's cost index, published by ENR (see table page 21), which is up 4.8% for the year.

Labor costs are a major problem, especially with the strong growth we are seeing on the West Coast," says Mary Wallers, president of Sierra West. "It may take up to two years for things to work out." She adds that "lumber prices are really jumping" and subcontractor costs are driving inflation. In the current quarter, Sierra West's general building cost index is up 3.1% for the year, while their selling price index, which includes subcontractor bids, is up 7.8% over April 2016's level.

"Subs are putting in premiums for risk due to the lack of available labor," says Sierra West's chief estimator John Moreno. Everybody has enough work in their backyard, so they don't have to travel, which reduces competition in some markets, he says.

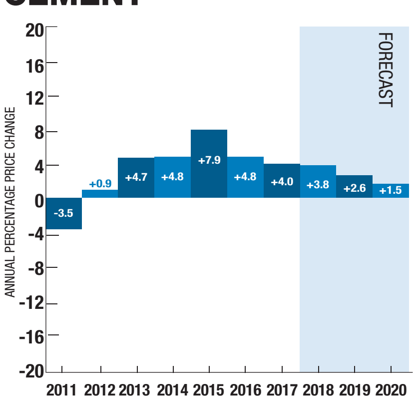
"We are seeing strong year-over-year gains in construction costs," says Brad Saylor, president of Leland Saylor, which publishes two indexes in ENR. In the latest quarter Saylor's material-labor index is up 3.6% for the year, while its subcontractor index is up just 2.5%. "We found the difference a bit of a surprise, but we think there is more competition in the subcontractor bids and higher pressure on material prices," he says. Oil-based materials, such as paint, roofing and insulation, are particularly troublesome, he adds.

IHS Global Insight's forecasts are taking into account the unexpected election of Donald Trump as U.S. president. Trump's infrastructure campaign promises now look like a "bump in fiscal stimulus that may not be coming," says John Mothersole, president of the consultant's construction price forecasting division.

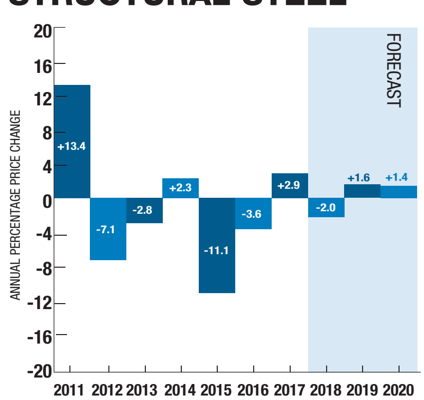
"Overall, we saw a big rise in costs in 2016, but the tone is changing," Mothersole adds. "The expectation that growth in China would improve seems questionable now, and there is a feeling that there won't be a soft landing for the Chinese market," he says. Weakness in China would put a major drag on global commodity prices.

"China has a glut in flat-steel and rebar products," says John Anton, steel analyst for Global Insight. "They are oversupplied and badly misjudged demand," he says. As a result, he predicts that there is a downward

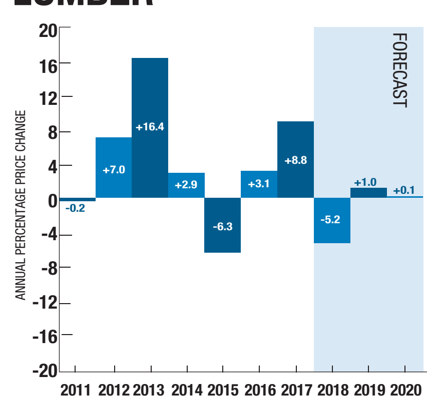
CEMENT



STRUCTURAL STEEL

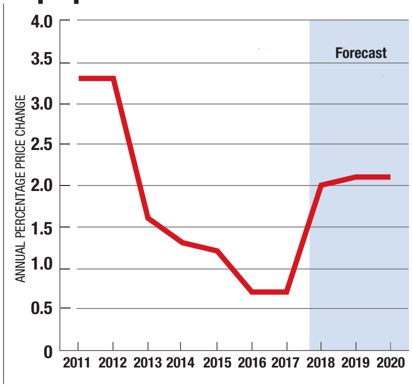


LUMBER



SOURCE: IHS GLOBAL INSIGHT

Equipment Prices



SOURCE: IHS GLOBAL INSIGHT

bias to steel prices and says it is becoming more of a buyer's market. "Buy on spot and wait for prices to fall," is his advice.

Anton forecasts rebar will increase about 3.3% this year, after falling 25.7% during the two previous years. In 2018, he expects prices to slip 0.2%. Structural steel follows suit, which is forecast to increase just 2.9% this year, following a 14.7% decline during the previous two years. Next year, Anton predicts that structural steel prices will be rolled back by 2%.

"The steady rise in cement prices continues to surprise us," says Deni Koenhemsi, construction materials analyst for IHS Global Insight. "Supply is not keeping up with demand," she says. A large number of cement kilns were idled during the recession, she says, and restarting them under new regulations is very expensive. To compensate, firms are importing more expensive cement rather than the cheaper clinker. Prices have risen more than 4% a year for the period between 2013 and 2017 and IHS Global Insight is looking for another 3.8% increase in 2018.

This year, ENR introduced two new building cost indexes, compiled by the U.S. Commerce Dept., to its table of 16 major industry indexes. Both new indexes show very modest annual cost increases of 0.6% for industrial buildings, while the medical-building cost index showed no gain for the year. This compares to annual increases of 1.7% for warehouses and 1.6% for office buildings. In addition, Commerce's cost index for residential-building work is up 5.3% for the year. ■

BUILDERS' CONSTRUCTION COST INDEXES

NAME, AREA AND TYPE	APRIL. 2016	JULY 2016	OCT. 2016	JAN. 2017	APRIL. 2017	% CHANGE QTR.	YEAR
GENERAL-PURPOSE COST INDEXES:							
ENR 20-CITY: CONSTRUCTION COST[1]	957.02	966.26	971.41	981.42	994.75	+1.4	+3.9
ENR 20-CITY: BUILDING COST[1]	833.78	837.71	840.98	848.72	859.81	+1.3	+3.1
BUREC: GENERAL BUILDINGS[2]	358.00	362.00	363.00	366.00	366.00	0.0	+2.2
FM GLOBAL: INDUSTRIAL[3]	NA	315.00	NA	320.00	NA	+0.8	+1.9
SIERRA WEST: GENERAL BUILDING	963.72	962.49	956.18	990.30	993.13	+0.3	+3.1
LELAND SAYLOR: MATERIAL/LABOR	950.11	959.83	965.81	970.66	984.05	+1.4	+3.6
ECC, EDWARTOSKI COST CONSULTING[5]	176.92	177.06	177.71	181.43	181.64	+0.1	+2.7
SELLING PRICES INDEXES—BUILDING:							
SIERRA WEST, SELLING PRICE	1158.7	1195.6	1187.2	1224.6	1249.3	+2.0	+7.8
LELAND SAYLOR: SUBCONTRACT	984.25	993.32	999.80	1006.5	1009.2	+0.3	+2.5
TURNER: GENERAL BUILDING[1]	983.00	995.00	1006.0	1019.0	1031.0	+1.2	+4.9
RIDER LEVETT BUCKNALL[6]	173.84	176.48	178.34	180.11	182.16	+1.1	+4.8
SPECIAL-PURPOSE BUILDING COST INDEXES:							
U.S. COMMERCE: ONE-FAMILY HOUSE[7]	118.80	121.00	124.00	124.70	125.10	+0.3	+5.3
U.S. COMMERCE: NEW WAREHOUSES[7]	143.40	142.50	144.00	144.40	145.80	+1.0	+1.7
U.S. COMMERCE: NEW SCHOOL BUILDINGS[7]	151.60	149.70	151.00	151.50	152.10	+0.4	+0.3
U.S. COMMERCE: NEW OFFICE BUILDINGS[7]	128.10	128.00	128.90	129.60	130.20	+0.5	+1.6
U.S. COMMERCE: NEW MEDICAL BUILDINGS[7]	106.30	105.60	106.50	105.90	106.30	+0.4	0.0
U.S. COMMERCE: NEW INDUSTRIAL BUILDINGS[7]	119.80	118.20	119.20	119.90	120.50	+0.5	+0.6
POWER ADVOCATE: POWER PLANT[8]	174.29	179.41	182.49	184.37	188.74	+2.4	+8.3

[1]BASE: 1967=100; [2]BASE: 1977=100; [3]BASE: 1980=100; [5]FORMERLY SMITH GROUP, 1992=100; [6]BASE: APRIL 2005=100;
[7]BASE: 1992=100; [8]POWERPLANT FOR A 550-MW COMBINED-CYCLE FACILITY.

CONSTRUCTION MATERIALS PRICE MOVEMENT IN 2016-17

		OCT.	NOV.	DEC..	JAN.	FEB.	MARCH	APRIL	MAY
AGGREGATES	MONTHLY % CHG.	–0.1	–0.3	+0.1	+2.5	+0.5	–0.3	–0.2	+0.9
	ANNUAL % CHG.	+3.4	+3.3	+2.3	+3.3	+3.5	+3.0	+2.4	+2.5
ASPHALT PAVING	MONTHLY % CHG.	+0.4	+0.3	–0.6	+6.4	–1.1	–1.0	–3.4	–0.6
	ANNUAL % CHG.	–6.2	–5.5	–5.6	–1.8	–2.3	–1.9	–1.8	–0.1
CEMENT	MONTHLY % CHG.	–0.1	+0.1	–0.4	+2.1	+0.6	–0.5	+1.1	+3.0
	ANNUAL % CHG.	+4.6	+5.0	+4.4	+3.2	+4.8	+4.2	+3.7	+6.9
CONCRETE PIPE	MONTHLY % CHG.	–0.3	+0.7	+0.8	–0.2	+0.3	–0.4	+0.1	–0.4
	ANNUAL % CHG.	+0.9	+1.6	+2.2	+2.0	+1.9	+2.3	+1.3	+1.6
COPPER PIPE	MONTHLY % CHG.	+1.6	+8.3	+4.5	–2.0	+6.3	–3.1	–0.1	–3.0
	ANNUAL % CHG.	–2.9	+8.2	+20.0	+19.4	+24.9	+15.9	+18.5	+13.2
DIESEL FUEL	MONTHLY % CHG.	–2.1	–1.7	+1.1	+1.4	+1.4	–1.0	+1.8	+8.2
	ANNUAL % CHG.	–8.0	–6.2	+21.4	+35.1	+44.0	+35.3	+33.2	+25.3
FABRICATED STEEL	MONTHLY % CHG.	–1.1	0.0	+0.3	+0.7	–0.3	+0.7	–0.2	+0.7
	ANNUAL % CHG.	0.0	+0.2	+1.1	+2.0	+1.7	+2.6	+2.1	+2.4
GYPSUM PRODUCTS	MONTHLY % CHG.	–0.6	+0.9	+1.9	+0.9	+2.1	–0.9	+4.2	–1.1
	ANNUAL % CHG.	+1.4	+4.0	+7.6	+4.9	+7.1	+6.9	+7.2	+6.5
LUMBER, SOFTWOOD	MONTHLY % CHG.	–1.0	–1.3	+1.7	+0.7	+4.5	+2.3	+3.0	+2.2
	ANNUAL % CHG.	+8.3	+4.0	+8.1	+8.1	+13.4	+12.9	+13.3	+14.0
PLYWOOD	MONTHLY % CHG.	–1.8	–1.9	+0.8	+0.5	–0.5	+3.2	+3.1	+1.1
	ANNUAL % CHG.	–3.0	–3.9	–2.2	–1.7	–0.7	+2.3	+4.8	+6.4
PVC PRODUCTS	MONTHLY % CHG.	+0.1	–0.2	+0.1	+0.3	+0.6	–0.1	+0.7	+0.2
	ANNUAL % CHG.	+0.3	+0.2	–0.1	+0.9	+1.4	+1.8	+2.2	+2.1
READY-MIX CONCRETE	MONTHLY % CHG.	+0.2	+0.3	+0.2	+0.7	+0.2	+0.2	+1.5	–0.6
	ANNUAL % CHG.	+3.8	+3.6	+3.7	+3.6	+3.3	+3.0	+3.7	+2.8
SHEET METAL	MONTHLY % CHG.	0.0	+0.1	+0.1	0.0	+0.1	+0.1	+0.2	0.0
	ANNUAL % CHG.	+0.8	+0.8	+0.8	+0.7	+1.2	+1.2	+1.5	+1.3

SOURCE: BUREAU OF LABOR STATISTICS. MONTHLY AND YEAR-TO-YEAR PERCENT CHANGES FOR PRODUCER PRICE INDEXES FOR LATEST EIGHT-MONTH PERIOD.

By Bruce Buckley

Field Staffers Earn Top Dollar

With high demand nationwide for talent in major metro areas—as well as in many secondary and tertiary markets—construction salary gains continue a steady rise. Among firms that expect to offer raises, anticipated increases could average 3.41% this year, according to data from the 2017 Construction/Construction Management Staff Salary Survey produced by Personnel Administration Services Inc. Firms typically underestimate hikes by as much a 0.5%, so they actually could hit closer to 4%, says Jeff Robinson, president of PAS, an industry compensation specialist.

Salary increases at that level would continue a steady rise seen in recent years. Among firms that reported raising salaries, respondents noted average increases of 3.46% in 2014, 3.73% in 2015 and 3.63% in 2016.

Although the rate of average salary increases is steady, Robinson says certain positions are in higher demand than others, particularly in construction operations. Citing base salaries across all firms reporting, he says safety directors saw the biggest jump in this year's survey, hitting nearly 8%, with big hikes as well for project managers and estimators last year, according to PAS data. "If you're in a hiring mode, you'll have to offer something more than average for these positions," Robinson adds. "It looks like firms have been aggressively going after folks in these selected job families."

While construction salary growth hasn't passed 4%—as happened in earlier periods of market strength—Robinson says it still is well above increases in other industries, which average about 3%.

Average compensation also remains rather consistent across the U.S. Last year, the New York and New Jersey region offered the highest average salary hikes at 3.8%, with the lowest—3.4%—reported in the Midwest and Northwest.

CONTRACTOR AND CM PAY

POSITION	GENERAL CONTRACTORS	CM FIRMS
SUPERINTENDENT	87,993	88,813
ASSISTANT SUPERINTENDENT	69,190	69,943
PROJECT SUPERINTENDENT	108,141	111,808
PROJECT MANAGER/ESTIMATOR	91,449	96,075
CONSTRUCTION MANAGER	140,695	145,640
PROJECT MANAGER	98,454	105,504
FIELD ENGINEER		
INEXPERIENCED	58,627	62,087
EXPERIENCED	72,373	74,877
CHIEF	104,927	112,331
SENIOR PROJECT ENGINEER	100,463	107,009
ESTIMATOR		
INEXPERIENCED	61,676	65,840
EXPERIENCED	81,787	81,669
SENIOR	102,774	106,018
CHIEF	133,218	141,190
COST ENGINEER		
INEXPERIENCED	62,436	58,404
EXPERIENCED	77,359	75,759
SENIOR	96,374	96,097
COST ENGINEERING MANAGER	126,313	126,939
SCHEDULING ENGINEER		
INEXPERIENCED	65,171	65,242
EXPERIENCED	81,654	86,503
SENIOR	94,321	107,215
SCHEDULING MANAGER	107,960	115,184
CONTRACT ADMINISTRATOR		
INEXPERIENCED	45,531	50,588
EXPERIENCED	56,951	60,365
SENIOR	73,316	82,410
QUALITY CONTROL		
NETWORK ADMINISTRATOR	77,358	74,232
CONTRACTS MANAGER	107,568	112,281
ASSISTANT SAFETY DIRECTOR	77,626	83,024
SAFETY DIRECTOR	102,010	106,230
BUSINESS DEVELOPMENT		
PROGRAMMER/ANALYST	81,123	90,248
PURCHASING AGENT	80,023	77,066
MATERIALS MANAGER	85,688	87,349
EQUIPMENT MANAGER	95,346	98,978
ACCOUNTING MANAGER	90,687	97,259

SOURCE: PAS INC. 2017 CONSTRUCTION MGMT. SALARY SURVEY. FIGURES ARE BASE PAY AVERAGES BEFORE BONUS, ALL BID TYPES

"The shortage of qualified people is worse than it was a year ago and it's going to get even worse. There's no relief in sight," says Bob Honour, president of H&H Consultants. He says that strength in the construction market has spread from the major cities to smaller markets across the U.S., making job-candidate mobility an issue. "It used to be that if one part of the world was busy, somewhere [else] was slow, and you could get people to move," he says. "They don't have to move to get a job anymore. They only move if they want to be near family."

Rob Herndon, president of HCC Recruiting Services, also sees field staff opportunities moving from downtowns to the suburbs and neighboring cities. "Outside of these big cities, there are dozens of small cities where companies are based that may have 50 employees," he says. "People don't want to have to drive two hours per day to a job. They start like that and they work until they find something better that's closer—and all of my clients know that."

As a result, Herndon sees employers putting a premium on field staff willing to work downtown, offering compensation that is 10% to 20% higher. "I see superintendents on these downtown multifamily projects make $120,000 to $130,000 with typical bonus and car allowances," he says. "Guys outside the city might make $100,000 on a garden-style apartment job and a lot of them take those projects because they are less stressful and more fun."

Overall, Herndon sees highest demand for superintendents and assistant superintendents, followed by project managers. Such field staff is needed in residential, commercial and institutional sectors, among others. Megan Morris, vice president of Adams Consulting Group, also sees some unwillingness to change jobs. "For a superintendent who has been in a firm more than ten years, the income gap between high-quality assistant superintendents and their own income is closing," she says. "It's a great time for high-quality people to leverage themselves, because companies need them." ■

By Thomas F. Armistead

Power Market Whirlwinds

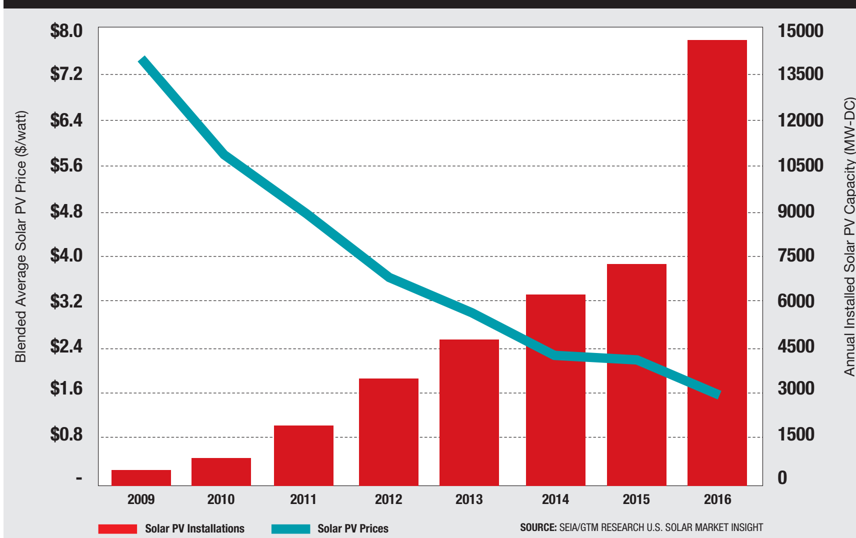
The energy industry is in transition on nearly every level. It is buffeted by the crosscurrents of new technologies and competing systems of power generation and transmission that are disrupting long-established models and conventional ways.

Natural gas, photovoltaics and wind energy are the biggest winners so far. They are succeeding because of economics, not favorable government regulations. The dropping costs of natural gas and renewable energy are undercutting coal and nuclear generation on price.

"As [natural] gas prices have gone low and stayed low, they've been outcompeting coal, putting pressure on some of the older, less efficient coal plants," says Matt Stanberry, vice president for market development at Advanced Energy Economy, an association bent on transforming public policy to enable rapid growth of advanced energy companies. He predicts natural gas prices will remain relatively low, keeping the pressure on coal and nuclear generation.

Oil and gas supplies from hydraulic fracturing are at flood stage, but construction of long-distance pipelines from shale beds to market faces resistance, increasing costs, uncertainty and delays. The industry is striving to adjust. Petrochemical manufacturers are building plants closer to the wellheads, and a new natural-gas distribution hub proposed for West Virginia may offer fresh employment for idled coal workers, as demand for that resource fades.

Solar PV Yearly Installed Capacity Growth and Declining Prices 2009-2016



SOURCE: SEIA/GTM RESEARCH U.S. SOLAR MARKET INSIGHT

Solar Flare-Up

The U.S. solar market continues to surge. It had its biggest year ever in 2016, nearly doubling the previous production record and, for the first time, adding more capacity than any other source of energy, according to the Solar Energy Industries Association. But, Stanberry adds, solar prices declined 30% in the same year. This had the curious effect of making the industry appear to be shrinking, because while the number of installations grew by 90%, they generated less revenue due to lower prices.

While celebrating growth, the solar industry is warily watching a tariff case now before the U.S. International Trade Commission. The industry's expansion was advanced, in part, on the low price of photovoltaic panels imported from China, where manufacturers benefit from government favors. However, this low-cost competition has driven U.S. panel makers out of the business. Two manufacturers, Suniva and SolarWorld Americas, have asked ITC to impose a global tariff on panels. If they prevail, the U.S. solar power industry may see panel costs climb.

"By and large, the impact won't be felt until 2018, but it should be fairly immediate if that is to be the case," says Camron Barati, solar analyst at IHS Markit. "What Suniva's requesting is double the price that we're seeing in competitive markets today." The result could be a 60% reduction in U.S. installations, hitting utility-scale solar hardest, he adds.

Rising Winds

According to the U.S. Energy Information Administration, wind energy comprised 8% of the nation's operating electric generating capacity in 2016, more than any other renewable technology, including hydroelectricity. "You see market steadiness now after years and years of big swings," Stanberry says.

Add to that the recent completion of the Deepwater Wind offshore project, which Stanberry calls "a landmark event." Although offshore wind has faced intense opposition in the U.S., now that the ice has broken, Stanberry says he sees a "huge resource" opening up, not only off the East Coast, but also in the Great Lakes. Meanwhile, wind farms continue sprouting in the Central Plains.

But—and there always is a but—transmission-line construction to urban load centers is blocked by many states that see no economic benefits for their people.

The buffeting is forecast to continue. ■