SIERRA CLUB
FOUNDED 1892

Via Courier

June 28th, 2013

Mr. Jeff Derouen, Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602

Re: Docket CASE NO. 2012-00535

Dear Mr. Derouen:

Enclosed for the filing are an original and ten copies of the *PUBLIC VERSION OF THE SUPPLUMENTAL TESTIMONY OF FRANK ACKERMAN* and a certificate of service in docket 2012-00535 before the Kentucky Public Service Commission. This filing contains confidential information that has been redacted for public viewing.

Sincerely,

Ruben Mojica
Sierra Club Environmental Law Program
85 2nd Street, 2nd Floor
San Francisco CA, 94105
(415)977-5737

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Application of Big Rivers Electric Corporation For an Adjustment of Rates	))))	**CASE NO. 2012-00535**

Supplemental Testimony of Frank Ackerman

On Behalf of The Sierra Club

PUBLIC VERSION

June 28, 2013

SUPPLEMENTAL TESTIMONY OF FRANK ACKERMAN

Q. What is the purpose of your supplemental testimony?

A. A PSC ruling on June 19 directed Big Rivers to provide some documentation of its long-run production cost modeling and financial modeling on June 21. My supplemental testimony examines the implications of the newly released material for this proceeding.

Q. Please describe the materials provided by Big Rivers on June 21.

A. In response to several discovery requests from the Sierra Club, Big Rivers provided brief verbal answers, largely identifying the places where requested information could be found in nine attached spreadsheets: one for financial modeling from 2012 through 2025, six providing a base case and sensitivity analyses for production cost modeling from 2013 through 2027, and two single-sheet workbooks presenting answers to specific questions, one on price assumptions and one on individual power plant performance data.

Q. Why did the Sierra Club request information on Big Rivers' long-run financial modeling and production cost modeling?

A. Big Rivers is requesting a substantial rate increase to cover its costs, following the departure of the Century Hawesville smelter from its system in August 2013. This represents the loss of 31% of Big Rivers' peak load, with a second large loss, due to the departure of the former Alcan Sebree smelter, coming just a few months later. Despite this loss, Big Rivers has proposed to keep – and keep investing in – all of its existing generation capacity; the only proposed capacity reduction is a temporary one, idling the Wilson or Coleman plant for six years before bringing it back on line in 2019.

As I argued in my initial testimony, this will leave Big Rivers with far more capacity than is needed to serve its post-smelter load. The costs of maintaining excess capacity, including investments in routine maintenance and in environmental compliance, drive up the rates that must be charged to the much-reduced, remaining customer base. This problem will be intensified by the expected request for an additional rate increase to take effect when the second smelter leaves in January 2014.

I conclude that the requested rate increase is not fair, just, and reasonable, since it forces customers to pay for maintaining unprofitable excess capacity. Big Rivers responds that maintaining its existing capacity, including the planned reactivation of the to-be-idled Wilson or Coleman plant in 2019, is in ratepayers' best interests. The resolution of this disagreement clearly depends on long-run projections, extending well beyond the short time horizons of Big Rivers' initial filing, as the PSC's June 19 ruling recognized.

Q. Does the newly released material make a compelling case for maintaining Big Rivers' existing capacity and reactivating Wilson in 2019?

A. No, it does not. It presents [redacted]

The spreadsheets are almost entirely undocumented, with cryptic abbreviations labeling some data entries; it is difficult to be certain about the sources of the underlying assumptions. It appears likely, however, that Big Rivers has relied on unrealistic assumptions throughout its long-run projections.

Q. Have criticisms of Big Rivers' long-run modeling been raised in the past?

A. Yes. In the 2012 CPCN case, my colleague Rachel Wilson examined Big Rivers' long-run modeling in detail. She identified multiple errors and biases that led Big Rivers to an inaccurate evaluation of its power plants. Correcting for several of these errors and biases, she found that every one of Big Rivers' coal plants was uneconomic (i.e., increased the net present value of revenue requirements) compared to replacement with natural gas.[1]

Based on the limited information on long-run modeling available in this case, I believe that at least two of the problems identified by Ms. Wilson may still be present in Big Rivers' calculations, leading to the same kind of inaccuracies that she analyzed. The two problems are the inappropriate treatment of future carbon prices and the failure to include the full costs of compliance with current and anticipated environmental regulations. In addition, the newly released material adds support to one of the arguments in my initial testimony, regarding Big Rivers' overly optimistic assessment of the potential for off-system sales.

[1] Note that all references here and throughout this testimony are to the public, not the confidential, version of Ms. Wilson's 2012 testimony.

Q. Please describe the first problem. How did Big Rivers address carbon prices in the 2012 CPCN case?

A. As Ms. Wilson explained (see her public testimony, pp.23-24, which has been filed in this proceeding as Exhibit Ackerman-4), Big Rivers assumed in its production cost modeling for the CPCN case that a CO_2 emissions price would go into effect in 2018 that would raise the market price of electricity throughout MISO, but Big Rivers failed to assume in its modeling an equivalent cost increase for its own generation units. Thus in Big Rivers' modeling the market price of electricity jumped up in 2018 when the carbon price went into effect, but the assumed cost of operating Big Rivers' plants did not. It should be clear that this is an error: if everyone has to pay a price for carbon emissions from fossil fuel plants, Big Rivers will have to pay as well.

Q. Why do you believe that the same problem may be present in Big Rivers' modeling for the current proceeding?

A. I have compared the Big Rivers forecast for the MISO Indiana hub price to two other forecasts. One is the annual average of a forecast through 2022 of the same price, the MISO Indiana Locational Marginal Price (LMP), developed by Indianapolis Power & Light (IPL) based on forecasts from the consulting firm Ventyx, as provided in a public, non-confidential data response in a recent case before the Indiana Utility Regulatory Commission.[2] (I have attached the data, in the form it was provided by IPL, as Exhibit Ackerman-8.) The other is the average electricity price to all end users from the *Annual Energy Outlook 2013*, for AEO's East North Central region, which includes Indiana and other eastern parts of MISO.[3] All are in nominal dollars per MWH.

The results are shown in Figure 1. The IPL/Ventyx forecast matches Big Rivers closely through 2018, but then continues modest growth with no sign of a surge. AEO's projections, which are slightly lower than Big Rivers and IPL/Ventyx from the start, also grow smoothly at similar rates before and after 2019. From 2013 to 2027, AEO projects average annual growth of 0.5% in the real (constant-dollar) price of electricity for the East North Central region, plus inflation averaging 2.2% per year.

Figure 1 shows that Big Rivers imagines that something enormous will happen to electricity prices around 2019 – something that is not visible to IPL/Ventyx or the AEO. Any existing generator will of course be vastly more profitable if the Big Rivers, rather than the IPL/Ventyx or AEO, price projection comes true (without any corresponding increase in the generator's operating costs). To use that price projection for ratemaking

[2] Indiana Utility Regulatory Commission, Cause No. 44242, Indiana Power & Light response to CAC-SC DR3-3, Attachment 1.

[3] AEO prices: AEO 2013, Tables 3.3 (East North Central) and 3.6 (East South Central), spreadsheet line 122. Big Rivers price: from the spreadsheet "Big Rivers 2013-2027 Budget Exhibits – Base Case", sheet Annual Prices, line "DI_IndianaHub_All Hours", in $/MWH.

and utility planning, however, it is necessary to provide a compelling explanation of the anticipated 2019 price surge, and how the utility's own costs will purportedly remain unaffected by the surge. Big Rivers has not provided such an explanation.

The carbon price forecasting error identified by Ms. Wilson occurred at the same point in time, and could explain this jump in the graph. If the error she identified has been fixed, then another assumption has apparently been added to Big Rivers' production cost model that has a similar effect at the same point in time.

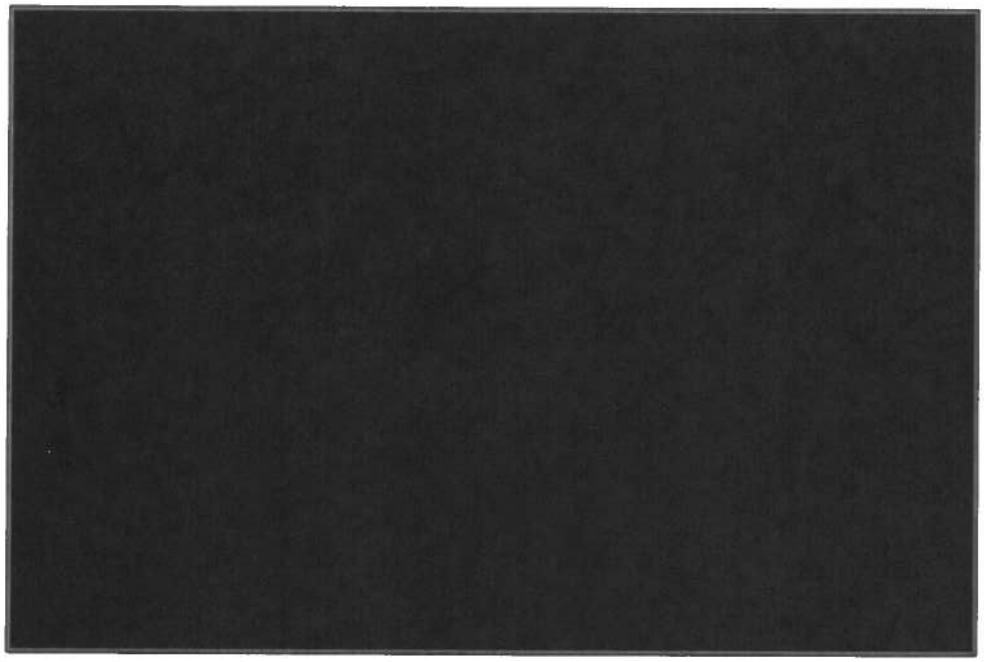


Figure 1. Projected electricity prices (nominal $/MWH)

Q. What effect could the price jump shown in Figure 1 have on Big Rivers' analysis in this case?

A. The Big Rivers electricity price forecast shown in Figure 1 could explain why the Company believes it will be profitable to bring the Wilson or Coleman plant back on line in 2019. At that point, the market price of electricity is assumed to rise rapidly, relative to the price of coal, making all of Big Rivers' coal units abruptly more profitable in the model. (Of course, the exact basis for Big Rivers' reported assumption that the idled plant would become profitable to operate again in 2019 is unclear given that, as noted above, Big Rivers has not provided any production cost model run actually showing a plant idled until 2019 and then reactivated.)

Q. Is the projected jump in MISO electricity prices reflected in Big Rivers' projected revenue from off-system sales?

A. Yes. Big Rivers' projected revenue per MWH from off-system sales[4] follows the Company's projection of the MISO Indiana hub all-hours price quite closely. [redacted]

Q. Is there a jump in Big Rivers' generation costs around 2019?

A. No. Big Rivers projects that the operating costs for its plants will rise gradually over time; since they are reported in nominal terms, the costs rise with inflation. There is no unusual jump in these costs around 2019. The operating costs for all Big Rivers plants rise in parallel from 2013 through 2027; to simplify the presentation, Figure 2 compares the prices of electricity and coal to Coleman operating costs. There is little change in the ratio of coal prices to operating costs over this period. On the other hand, the market price of electricity jumps upward around 2019, relative to operating costs.[5] Just as in Figure 1, it appears that Big Rivers is assuming that something unrelated to its own costs will suddenly cause a surge in the market price of electricity.

[4] Revenue per MWH of off-system sales is shown on the "Base Case" spreadsheet, sheet "Monthly Net Market Positions", column "Sales $/MWH". Projected MISO price is the Big Rivers forecast used in Figure 1.

[5] Operating costs are the "Total operating cost/MWH" lines from the "Base Case" spreadsheet, sheet Annual Resource Report. "Coleman cost" in Figure 2 is the unweighted average of these data for Coleman 1, 2, and 3. Electricity and coal prices are defined as in Figure 1. The coal price is "Coal West KYILB 4.5", in $/MMBTU, from the "Base Case" spreadsheet, sheet Annual Prices. To simplify the presentation, both data series in Figure 2 are converted to index numbers, with (by definition) the values in 2013 = 1.0.

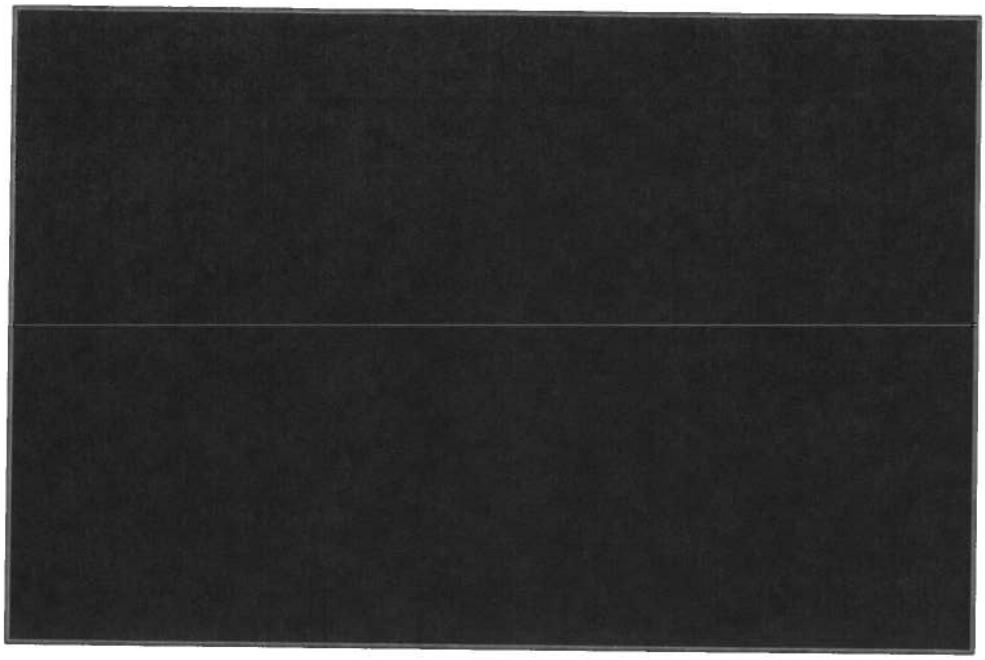


Figure 2. Electricity and coal prices compared to Coleman total operating cost/MWH

Q. Are you aware of any explanation for this price surge, other than Ms. Wilson's description of Big Rivers' error in modeling carbon prices in the CPCN proceeding?

A. No.

Q. Please turn to the second problem you have identified. Why are Big Rivers' assumptions about future costs of environmental compliance relevant to this case?

A. To continue to operate its existing plants, Big Rivers will have to pay the costs of compliance with environmental regulations that affect these plants. The rate increase requested in this case is based, in part, on a projected need to spend roughly $60 million on compliance with the MATS (mercury and air toxics) rule. As I argued in my initial testimony, the likely costs for Big Rivers of compliance with current and anticipated regulations could be much greater than that. Sargent & Lundy's 2012 report to Big Rivers, attached as Exhibit Ackerman-3 to my initial testimony, suggested that the costs of compliance on the existing plants could exceed $500 million. Some of the major expenditures recommended by Sargent & Lundy were for SO_2 and NO_x reduction required under the Cross-State Air Pollution Rule (CSAPR), and for coal combustion residuals management, as required under the less stringent of two alternatives under consideration at EPA. Although CSAPR was thrown out by an appeals court in 2012, the Supreme Court agreed to review that appeals court decision on June 24 of this year, suggesting that CSAPR compliance costs might again become relevant.

Big Rivers has argued that despite the loss of the Hawesville smelter load, it is cost-effective to own and operate all of its existing plants, with the Wilson or Coleman plant idled for six years. This argument depends, among other factors, on how much it will cost to comply with environmental regulations.

A greater cost of compliance makes the existing plants less valuable in economic terms; keeping the plants in service and investing in the needed pollution controls can increase the present value of revenue requirements, relative to alternative sources of energy. If Big Rivers has underestimated future compliance costs, it becomes more likely that it will have to request additional rate increases in the future to cover those costs.

Q. Did the Sierra Club request information on projected environmental compliance expenditures beyond 2016?

A. Yes. Data request SC 2-3, a multi-part request, asked for several categories of information, by generating unit, on an annual basis through 2030, if the Company maintains any such records or information for modeling, forecasting, or planning purposes. Capital expenditures on pollution control was one of these categories.

Q. Did Big Rivers provide the requested information?

A. No, not completely. The June 21 response provided annual information through 2027 for only 7 of the 10 requested categories. For the remaining three categories of information, the response merely cited an earlier response (the confidential response to SC 1-25), providing information through 2016. Those three categories were non-environmental capital expenditures, capital expenditures for pollution controls, and fixed operating costs.

According to a follow-up email from Big Rivers' counsel, Big Rivers did not produce this information in response to Sierra Club's data request because it does not exist. A copy of this email is attached as Exhibit Ackerman-9. According to the email,

[redacted]

Q. That e-mail (Exhibit Ackerman-9) asserts that one of the production cost model runs provided by Big Rivers on June 21, [redacted] "displays Wilson being idled in September 2013 and restarting in 2019." You have

stated that Big Rivers did not model any scenarios showing Wilson or Coleman idled until 2019 and then restarting. Can you explain this difference of views?

A. [redacted]

Q. What capital expenditures for environmental compliance are projected in the materials provided by Big Rivers on June 21?

A. In the financial model spreadsheet, produced in response to SC 2-2, the sheet "Capex & Depr" includes a line for environmental capital expenditures. [redacted]

Q. Finally, please explain why the newly released material supports your argument that Big Rivers has relied on overly optimistic projections of off-system sales.

A. The financial model spreadsheet, on the "Rates" sheet, provides projections of energy sales by customer class from 2013 to 2025. I have graphed these projections in Figure 3. This is a picture of wishful thinking, in several respects. [redacted] Note that Figure 3 presents sales in energy terms, not dollars. That is, projected sales volume, in TWH, jumps upward at the same point in time when, as we have seen, the forecast of market prices also takes a dramatic leap upward.

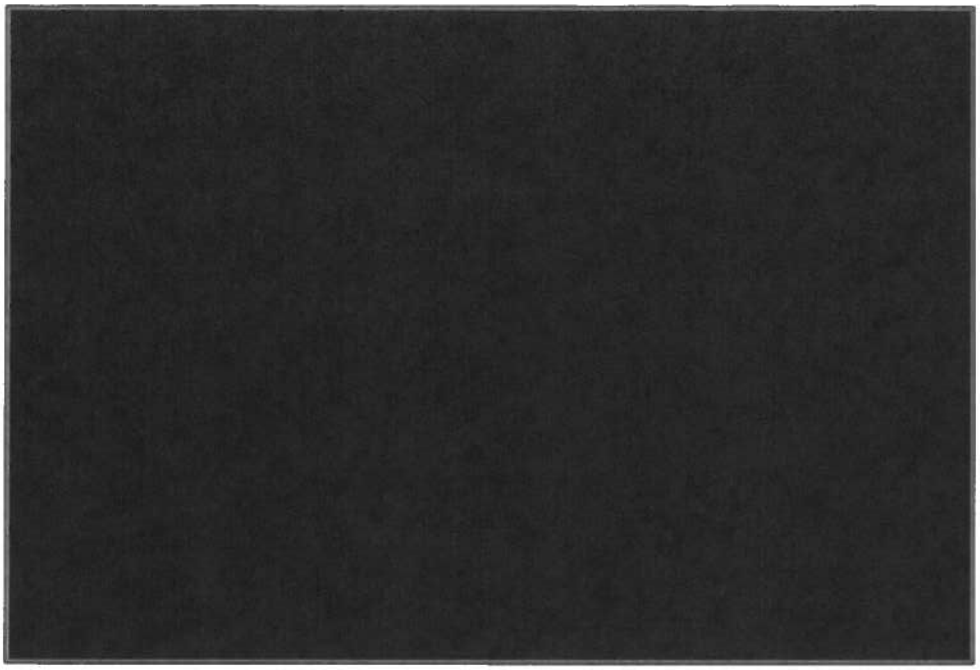


Figure 3. Big Rivers projected energy sales by customer class (TWH), 2013 – 2025

Q. Has Big Rivers provided an explanation of the projected surge in off-system sales in 2019?

A. No.

Q. Would the projected surge in off-system sales, if it occurred, be big enough to justify maintaining and operating all of Big Rivers' existing power plants?

A. No. The projections in Figure 3 still assume ongoing sales [redacted] to the Sebree smelter. To compensate for the loss of this smelter, Big Rivers would need a second surge in off-system sales, of about the same size as the one shown in Figure 3.

Q. Please summarize the conclusions of your supplemental testimony.

A. In the limited time available, I have examined the additional documents provided by Big Rivers on June 21. These documents provide some insights into Big Rivers' long-run planning. They do not, however, demonstrate that, following the loss of the Hawesville smelter load, the Company can afford to maintain all of its existing capacity, with one plant idled for six years. Attempting to maintain all of that capacity imposes an unfair and unreasonable burden on the remaining ratepayers, a problem that will only be intensified with the departure of the Sebree smelter in January 2014.

In fact, the modeling runs provided on June 21 suggest that Big Rivers is making at least three errors, all of which tend to exaggerate the value of its existing plants to ratepayers. First, it is assuming a dramatic increase in the price of electricity around 2019, with no corresponding increase in generation costs. The Company has not explained this price jump in its modeling, which is not present in electricity price forecasts from IPL/Ventyx or the Energy Information Administration's *Annual Energy Outlook*. However, if Big Rivers' error in carbon price modeling identified in the 2012 CPCN case by Sierra Club witness Rachel Wilson – wherein Big Rivers effectively assumed that every utility in the country would have to pay a price for its CO_2 emissions except for Big Rivers – has not yet been corrected, then the result would be an erroneous jump in electricity prices after 2018, much like the forecasts found in the Company's production cost model runs.

Second, Big Rivers has confirmed that it assumed no additional costs of environmental compliance in its long-run modeling, beyond MATS compliance in 2013-2014. Significant future costs are likely to occur: the Company's own consultants, Sargent & Lundy, estimated in 2012 that there could be needs for hundreds of millions of dollars of additional pollution control costs at Big Rivers' plants for compliance with CSAPR, coal combustion residuals regulations, and other rules.

Third, Big Rivers has forecast a huge, unexplained jump in the volume of off-system sales in 2019, occurring at the same time as the jump in prices. With such big increases in both volume and price, Big Rivers' power plants are projected to become immensely profitable. All that is missing is an explanation of the jump in volume and prices.

All of these factors lead to exaggerating the viability of the existing plants, with ratepayers picking up the tab for this costly mistake. If electricity prices do not soar in 2019, if additional pollution control investments are required, and if huge increases in off-system sales do not materialize, then ratepayers will face one rate hike after another to maintain Big Rivers' expensive excess capacity.

It is the Commission's responsibility to set fair, just, and reasonable rates for Big Rivers' ratepayers. Those rates should include the actual cost of service received by the ratepayers – but not additional costs for maintaining more capacity than is needed to serve the Company's customers.

Q. Does this conclude your testimony?

A. Yes, it does.

EXHIBIT 8

Endpoint	Year	Month	Resource	Variable/Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	2013	January	Market Prv 1 AM Mkt		24 12	27 61	30.29	25 74	27 63	26 97	28 48	25.96	27.22	24 85	26 7	28 94	27 55	26 71	24 31	24 69	26 99	30 67	28 16	26 96	23 49	25 55	28 25	27 56	26 6	25 27	27 5	26 85	26 18	26 18	32 23
1	2013	January	Market Prv 2 AM Mkt		17 43	28 43	26 62	27 81	22 94	26 36	25 16	25 96	23 04	21 16	25 26	27 64	27 16	24 11	19 78	24 99	27 28	28 68	26 4	25 8	20 01	24 85	25 15	25	23 82	24 9	25 48	24 55	25 29	25 29	31 86
1	2013	January	Market Prv 3 AM Mkt		14 02	28 18	25 25	26 11	21 87	25 23	23 34	26 07	19 4	18 27	25 17	27 55	26 76	23 69	19 51	24 9	27 02	28 13	26 88	25 26	18 33	23 66	25 28	26 28	22 95	23 6	24 87	25 15	25 65	25 63	31 5
1	2013	January	Market Prv 4 AM Mkt		13 36	27 64	23 69	24 66	21 56	24 59	22 91	25 62	19 27	15 87	24 64	28 18	26 63	23 55	19 41	24 82	26 67	27 59	25 65	25 05	16 16	22 96	24 97	25 99	22 95	23 66	24 83	25 02	25 76	25 76	31 5
1	2013	January	Market Prv 5 AM Mkt		13 16	27 55	23 99	25 57	21 65	24 69	22 86	26 83	19 24	15 55	24 58	27 68	26 32	23 27	18 83	24 27	26 28	27 22	25 35	24 14	15 59	22 91	25 09	25 99	22 51	23 67	24 96	25 5	25 61	25 61	31 5
1	2013	January	Market Prv 6 AM Mkt		13 97	28 28	24 12	25 55	20 07	24 32	22 54	27 07	19 86	18 76	24 87	27 72	26 3	23 89	19 18	25 3	27 16	28 25	25 3	23 44	17 63	23 61	25 54	25 56	22 62	23 14	24 38	25 71	25 84	25 84	32 23
1	2013	January	Market Prv 7 AM Mkt		18 43	35 62	30 85	31 97	21 72	25 41	29 11	30 07	27 18	24 18	29 62	28 29	27 03	26 17	24 4	27 75	31 87	32 08	26 26	24 66	24 06	27 8	27 38	29 05	26 44	24 14	24 21	30 26	30 71	30 71	44 97
1	2013	January	Market Prv 8 AM Mkt		24 76	40 94	36 96	40 09	25 62	27 21	34 42	35 21	31 31	30 26	39 01	29 6	28 26	30 83	30	34 3	37 12	44 2	27 44	26 44	30 85	39 07	37 83	42 91	40 01	34 1	29 5	25 64	41 76	36 48	36 48	46 42
1	2013	January	Market Prv 9 AM Mkt		27 62	49 08	41 22	43 78	30 22	30 83	37 96	42 58	37 08	35 3	44 66	34 87	30 92	33 9	35 44	36 63	40 11	53 39	29 9	29 05	37 47	37 83	42 9	41 74	42 83	35 82	28 37	48 17	42 72	42 72	43 93
1	2013	January	Market Prv 10 AM Mkt		27 86	49 48	41 56	35 09	29 81	30 42	38 09	41 66	36	33 02	32 52	43 04	33 34	29 99	33 46	32 36	35 04	38 32	41 21	30 29	29 6	32 59	36 27	39 62	39 29	41 53	35 38	28 43	43 78	38 87	38 87	46 12
1	2013	January	Market Prv 11 AM Mkt		28 46	44 19	33 1	38 84	32 14	31 54	32 15	34 95	30 76	32 1	32 43	39 51	32 91	30 53	33 56	31 66	35 05	36 17	40 88	32 06	28 65	32 48	37 04	39 58	37 81	38 92	36 64	28 15	42 61	37 63	37 63	46 12
1	2013	January	Market Prv Noon Mkt		29 74	41 65	32 88	35 8	31 33	33 65	30 92	33 26	30 56	31 45	39 22	34 4	30 68	33 08	33 08	32 06	32 96	35 28	34 47	31 02	29 84	31 84	35 54	37 55	38 49	38 28	35 88	28 15	40 87	37 24	37 24	45 92
1	2013	January	Market Prv 1 PM Mkt		29 15	37 63	31 77	33 91	30 46	31 97	30 6	32 74	30 23	31 39	40 1	32 08	29 43	33 22	31 42	32 51	34 62	35 26	29 21	28 07	31 42	34 28	35 69	36 39	35 92	33 04	28 37	46 22	36 27	36 27	45 27
1	2013	January	Market Prv 2 PM Mkt		27 68	33 91	29 68	32 06	28 72	29 83	28 54	30 61	30 15	29 99	34 56	28 58	27 77	30 74	29 87	31 18	33 31	31 91	28 3	26 02	30 52	31 44	31 68	34	33 21	29 07	27 34	33 37	33 05	33 05	44 99
1	2013	January	Market Prv 3 PM Mkt		28 02	31 68	29 03	30 65	27 12	28 96	28 09	29 63	29 74	31 09	33	27 71	30 1	28 56	30 32	32 03	30 58	27 16	25 21	29 39	29 68	30 1	32 01	30 57	28 62	26 31	31 56	31 46	31 46	44 99
1	2013	January	Market Prv 7 PM Mkt		43 55	54 07	42 45	41 99	34 38	33 13	34 56	41	34 16	41 79	43 25	39 82	36 93	36 51	36 12	39 45	38 62	34 97	32 52	31 19	27 07	26 03	30 21	30 17	32 95	30 57	30 84	27 08	31 72	31 58	31 58	45 23
1	2013	February	Market Prv 1 AM Mkt		43 25	52 69	42 55	42 36	38 08	40 98	36 62	41 68	35 35	47 04	46 79	38 41	35 8	37 87	41 46	36 94	46 84	39 86	33 19	33 11	31 56	44 87	42 04	41 65	36 75	36 88	42 56	45 14	38 45	38 45	45 92
1	2013	February	Market Prv 10 PM Mkt		36 54	40 41	33 37	35 32	30 65	33 22	31 82	35 03	31 59	34 47	36 99	31 54	31 21	32 54	35 81	34 73	39 62	33 26	29 66	28 77	33 14	35 79	34 4	36 64	30 99	31 53	32 6	35 06	32 93	32 83	44 93
1	2013	February	Market Prv 11 PM Mkt		33 87	35 19	29 34	30 66	29 83	32 94	28 58	31 61	29 32	30 73	32 84	30 67	30 35	29 84	31 57	30 88	34 84	29 76	28 53	27 6	29 78	29 96	30 04	31 56	28 83	31 16	31 97	31 12	30 55	30 55	32 69
1	2013	February	Market Prv Midnight		30 61	33 03	27 16	28 82	29 09	30 26	26 79	28 15	26 34	28 62	30 86	28 84	27 66	26 87	28 07	29 54	31 42	29 13	27 36	25 85	27 9	28 09	29 06	29 02	27 99	28 96	28 15	28 39	27 88	27 88	33 84
1	2013	February	Market Prv 1 AM Mkt		26 25	27 26	25 27	27 25	27 82	28 31	27 68	28 09	27 44	27 68	26 27	25 89	26 97	27 68	28 27	27 62	26 8	27 39	25 73	25 59	25 73	25 78	26 07	25 73	25 69	25 73	26 01	26 08			
1	2013	February	Market Prv 2 AM Mkt		25 89	27 29	27 26	27 84	28 31	27 42	27	28 14	27 68	27 6	26 12	25 89	27	27 68	28 31	27 63	26 31	27 25	25 73	25 45	25 73	25 73	25 47	25 43	25 73	25 73					
1	2013	February	Market Prv 3 AM Mkt		26 28	27 24	27 25	27 77	28	27 54	27 68	27 69	27 6	27 43	25 89	25 73	26 8	27 68	27 84	27 08	26 27	27 09	25 45	25 47	25 73	25 73	25 47	25 43	25 83	25 73	25 73				
1	2013	February	Market Prv 4 AM Mkt		26 35	27 25	27 01	27 84	28 33	27 61	27 68	27 71	27 6	27 66	26 32	25 73	26 8	27 68	27 82	27 25	26 8	27 64	25 64	25 43	25 47	25 73	25 73	25 47	25 47	25 83	25 73				
1	2013	February	Market Prv 5 AM Mkt		26 24	27 25	27 19	27 82	28 31	27 68	27 76	28 31	27 6	27 25	26 75	26 28	27 18	27 78	28 31	27 39	27	27 54	25 73	25 61	25 73	26 24	25 73	25 47	25 47	26 15	26 21	26 08			
1	2013	February	Market Prv 6 AM Mkt		27 43	27 55	27 54	28 35	28 57	28 31	28 35	28 31	27 82	27 68	27 4	26 8	27 68	28 34	28 44	27 68	27 17	27 83	25 73	25 73	26 14	26 97	25 88	25 47	25 9	26 8	27 11	27 24			
1	2013	February	Market Prv 7 AM Mkt		34 19	28 24	27 68	28 37	38 42	35 65	37 44	37 81	28 24	27 68	34 68	33 54	34 43	37 15	37 88	37 68	27 25	34 9	32 25	32 99	32 99	34 42	26 71	25 47	32 28	33 03	33 68	33 54			
1	2013	February	Market Prv 8 AM Mkt		34 97	28 24	27 69	39 34	38 19	37 28	37 86	38 19	28 24	27 92	35 39	34 15	35 39	38 71	38 97	27 68	27 26	35 39	32 99	33 54	33 54	34 97	27 56	25 47	33 54	34 15	34 68	34 44			
1	2013	February	Market Prv 9 AM Mkt		35 39	28 38	28 18	39 08	38 27	37 21	37 79	37 9	28 31	27 68	34 97	34 44	35 93	38 4	38 6	27 78	27 66	35 83	32 99	33 42	33 54	34 44	27 25	25 73	33 63	33 54	34 37	34 26			
1	2013	February	Market Prv 10 AM Mkt		34 87	28 31	28 09	38 92	37 92	37 57	37 54	37 79	28 31	27 98	35 39	34 4	35 78	37 45	37 85	28 17	27 45	35 39	32 99	33 54	33 12	33 97	27 42	25 73	33 78	32 95	34 02	34 15			
1	2013	February	Market Prv 11 AM Mkt		35 39	28 24	28 14	38 43	37 82	36 82	37 21	37 25	28 48	27 69	35 39	34 44	36 55	37 17	37 45	28 26	27 69	34 97	32 92	33 03	33 1	33 54	27 69	25 73	34 05	32 99	33 03	32 92			
1	2013	February	Market Prv Noon Mkt		34 87	28 31	28 26	37 79	37 47	36 96	36 78	35 39	28 31	27 68	35 27	34 42	36 05	36 73	37 21	28 11	27 29	34 52	32 43	32 93	33 03	33 54	27 12	25 73	33 9	32 99	33 03	32 99			
1	2013	February	Market Prv 1 PM Mkt		34 92	28 24	27 99	37 32	37 58	35 93	35 39	37 68	27 26	27 26	34 4	34 44	35 39	35 39	35 68	27 58	27 25	33 91	32 81	32 93	33 03	33 02	27 2	25 73	33 61	32 62	32 92	32 92			
1	2013	February	Market Prv 2 PM Mkt		34 69	27 68	27 91	37 3	37 68	35 93	35 39	34 68	27 65	27 25	34 15	34 49	35 39	35 39	35 68	27 58	27 25	33 91	32 81	32 93	33 03	33 02	27 2	25 73	33 61	32 62	32 92	32 92			
1	2013	February	Market Prv 3 PM Mkt		34 44	27 68	27 69	37 12	37 47	35 27	35 39	34 44	27 61	26 88	33 87	34 21	35 39	35 39	34 97	27 56	26 8	33 13	32 28	32 28	32 92	32 92	26 15	25 68	33 03	32 52	32 99	32 99			
1	2013	February	Market Prv 4 PM Mkt		34 44	27 68	27 68	35 97	37 34	35 39	35 39	34 19	27 04	26 57	33 96	34 21	35 39	35 39	34 97	27 56	26 8	32 99	32 28	32 28	32 46	32 28	26 09	25 73	33	32 28	32 42	32 42			
1	2013	February	Market Prv 5 PM Mkt		33 97	27 68	28 05	36 54	37 55	35 66	35 28	34 15	27 43	26 8	34 2	34 44	35 05	35 39	34 15	27 41	26 8	32 99	32 42	32 07	32 92	32 46	26 9	25 73	33	32 28	32 42	32 42			
1	2013	February	Market Prv 6 PM Mkt		34 19	28 24	28 27	36 37	37 48	36 84	36 43	34 68	27 69	27 38	34 19	35 27	35 97	35 97	35 87	34 5	27 69	27 23	32 99	32 28	27 2	25 84	33 54	32 76	33 03	32 24	32 75	33 03			
1	2013	February	Market Prv 7 PM Mkt		35 39	28 62	28 48	39 08	38 43	37 79	37 31	35 39	28 24	27 68	35 39	35 83	37 85	37 58	35 39	28 2	27 69	34 18	33 15	32 99	33 54	33 12	27 23	27 15	33 66	33 69	33 54				
1	2013	February	Market Prv 8 AM Mkt		35 39	28 62	28 31	38 58	37 98	37 42	37 56	35 83	28 24	27 82	35 39	35 45	37 76	38 12	36 09	28 31	28 24	34 44	33 13	33 03	34 44	33 54	27 25	25 73	33 63	33 54	34 37	34 26			
1	2013	February	Market Prv 9 AM Mkt		35 06	28 34	28 31	38 33	37 58	37 71	37 58	35 83	28 24	27 95	35 15	35 12	37 21	37 79	35 9	27 88	28 24	34 15	32 99	33 03	34 25	33 54	27 25	26 8	33 93	33 54	33 54	33 54			
1	2013	February	Market Prv 10 PM Mkt		34 84	28 34	28 34	37 81	36 73	37 58	37 08	35 39	28 31	27 68	34 15	34 18	37 11	37 21	35 33	27 68	28 11	33 54	32 99	32 92	33 03	33 1	33 54	27 69	25 73	34 05	32 99	33 03	32 92		
1	2013	February	Market Prv 11 PM Mkt		28 11	28 24	28 24	28 82	28 31	28 55	28 78	28 48	27 68	27 69	27 69	28 78	28 43	28 36	26 73	27 21	28 11	27 29	27 29	34 52	32 43	32 93	33 03	33 54	27 12	25 73	33 9	32 99	33 03	32 99	
1	2013	February	Market Prv Midnight		27 68	27 55	28 31	28 72	27 77	28 11	28 34	27 82	27 69	27 03	26 63	27 67	28 24	28 29	27 82	27 2	27 42	25 79	25 73	25 73	25 89	25 89	25 73	25 73	26 25	26 32	25 73	25 73			
1	2013	March	Market Prv 1 AM Mkt		25 62	25 95	26 35	24 62	24 51	24 53	24 53	23 91	24 53	24 53	24 62	24 51	24 53	24 52	25	25 98	25 98	25 76	25 07	25 08	24 53	24 53	24 53	24 39	24 37	24 51	24 53	24 49	24 53	24 24	
1	2013	March	Market Prv 2 AM Mkt		25 49	25 77	26 09	24 58	24 53	24 24	24 25	25 73	24 53	24 45	24 58	24 53	24 24	24 25	25 61	25 81	25 96	25 62	24 53	24 71	25 65	26 34	25 76	27 25	27 05	27 01	26 8	26 82			
1	2013	March	Market Prv 3 AM Mkt		25 43	25 44	26 44	24 64	24 38	24 24	24 24	25 77	24 53	24 53	24 64	24 38	24 24	24 24	25 33	25 79	25 98	25 21	24 53	24 38	24 28	24 24	24 24	24 53	24 53	24 53	24 53	24 53			
1	2013	March	Market Prv 4 AM Mkt		25 28	25 45	25 38	24 97	24 53	24 24	24 24	25 75	24 28	24 38	24 97	24 53	24 24	24 24	25 57	26 14	25 82	25 83	24 53	24 53	24 28	24 28	24 24	23 85	24 24	24 28	24 24	24 47	24 53	24 24	
1	2013	March	Market Prv 5 AM Mkt		26 01	25 58	25 98	24 68	24 53	24 24	24 28	25 98	24 53	24 41	24 68	24 53	24 24	24 28	25 55	25 83	25 91	25 88	24 91	24 58	24 28	24 28	23 4	24 24	24 24	24 24	24 53	24 53	24 24		
1	2013	March	Market Prv 6 AM Mkt		26 01	25 78	26 4	25 98	25 04	24 53	25 05	26 84	24 53	24 53	25 98	25 04	24 53	25 05	25 98	26 25	25 98	26 4	25 45	25 72	24 53	24 79	24 24	24 24	24 24	24 53	24 53	24 53	24 53		
1	2013	March	Market Prv 7 AM Mkt		34 5	25 98	26 28	26 28	34 5	33 07	32 37	33 05	35 82	24 53	24 72	34 5	33 07	32 37	33 05	34 79	26 4	26 44	35 37	33 49	34	32 97	32 73	24 35	24 24	32 33	32 33	32 35	32 87		
1	2013	March	Market Prv 8 AM Mkt		35 58	26 44	26 4	35 72	33 8	33 49	32 49	36 71	24 68	25 18	33 72	33 8	33 49	33 49	33 37	26 4	26 44	37 63	35 01	35 11	33 49	33 49	24 53	24 28	33 49	32 88	33 08	33 51	33 93		
1	2013	March	Market Prv 9 AM Mkt		35 36	26 42	26 4	35 37	33 49	33 08	33 51	35 87	25 58	25 93	35 37	33 49	33 08	33 51	35 4	25 4	26 44	37 63	37 33	37 91	33 49	33 71	24 53	24 24	33 49	32 88	33 08	33 51	33 93		
1	2013	March	Market Prv 10 AM Mkt		35 37	26 79	26 4	35 37	33 49	33 19	33 63	35 37	25 92	25 96	35 37	33 49	33 19	33 63	35 89	25 96	26 99	26 4	37 23	34 5	34 99	33 33	35 01	24 5	24 53	33 48	33 08	33 49	33 82		
1	2013	March	Market Prv 11 AM Mkt		35 37	26 86	26 4	35 11	33 63	33 41	33 74	34 89	25 94	25 98	35 11	33 25	33 41	33 74	35 99	26 99	26 4	36 41	34 5	34 68	33 49	33 98	25 43	24 86	33 95	33 56	33 49	34 27	33 9		
1	2013	March	Market Prv Noon Mkt		35 32	26 86	26 46	34 5	33 08	33 49	33 96	34 84	25 91	24 58	34 5	33 08	33 49	33 96	35 37	26 84	26 14	35 99	34 48	34 5	33 49	33 53	25 69	24 72	34 16	34 11	33 49	34 26	34 27		
1	2013	March	Market Prv 1 PM Mkt		34 57	26 84	26 44	34 42	33 08	33 26	33 81	34 27	25 82	24 82	34 42	33 08	33 26	33 81	35 37	26 4	26 02	35 37	34 48	34 5	33 49	33 53	25 91	25 1	34 1	34 5	33 49	34 26			
1	2013	March	Market Prv 2 PM Mkt		34 27	26 48	26 35	33 56	32 87	33 08	33 72	33 49	25 61	24 94	33 56	32 87	33 08	33 72	35 37	26 4	25 69	35 2	34 1	34 1	33 49	33 53	25 91	25 1	34 1	34 5	33 89	33 99	25 98	25 1	
1	2013	March	Market Prv 3 PM Mkt		34 1	26 44	26 4	33 08	32 94	33 08	33 97	33 11	24 69	24 97	33 08	32 94	33 08	33 97	35 37	26 43	25 6	34 99	33 49	33 16	33 49	33 49	25 69	25 18	34 25	34 41	33 49	33 41	33 49	25 3	25 25
1	2013	March	Market Prv 4 PM Mkt		33 93	26 43	26 49	33 08	33 05	32 87	33 82	33 05	24 9	24 53	33 08	33 05	32 87	33 82	34 99	25 82	25 34	34 74	33 49	33 1	33 49	33 08	25 8	25 46	33 67	34 07	33 42	33 09	33 05	25 37	24 68
1	2013	March	Market Prv 5 PM Mkt		33 93	26 42	26 4	32 87	32 75	33 08	33 53	33 05	24 64	24 53	32 87	32 75	33 08	33 53	34 83	25 98	24 96	34 5	33 49	33 05	33 49	33 07	25 88	25 61	33 49	34 1	33 49	33 08	33 05	25 23	25 08
1	2013	March	Market Prv 6 PM Mkt		33 89	26 63	26 44	32 97	32 33	32 87	34 27	33 07	25 05	24 53	32 97	32 33	32 87	34 27	34 54	25 98	24 68	35 02	33 08	33 05	33 11	32 87	25 89	25 73	33 49	34 3	33 27	32 65	33 02	25 27	25 08
1	2013	March	Market Prv 7 PM Mkt		35 37	26 95	26 6	33 49	32 8	33 08	34 5	33 27	25 72	24 79	33 49	32 33	32 88	34 5	34 63	26 04	24 68	34 74	33 09	33 08	33 1	32 87	25 8	25 94	33 49	33 49	33 05	33 05	32 87	25 33	24 68
1	2013	March	Market Prv 8 PM Mkt		35 34	27 03	27 05	33 49	32 87	33 08	35 11	33 78	25 95	25 18	33 87	33 08	35 12	35 13	35 4	25 98	25 02	33 56	33 49	33 49	33 96	25 68	25 84	34 2	34 1	33 49	33 05	32 99	25 8	24 5	
1	2013	March	Market Prv 9 PM Mkt		34 1	26 94	26 99	33 49	32 87	33 08	35 02	33 05	25 98	25 98	34 49	32 87	33 08	35 02	35 32	26 4	26 4	34 5	34 5	33 62	33 49	33 05	25 98	25 98	33 99	33 62	33 49	33 93	32 73	25 82	25 66
1	2013	March	Market Prv Midnight		25 88	26 44	26 64	25 1	24 68	24 82	26 4	25 13	24 61	25 73	25 1	24 68	24 82	26 4	26 4	26 4	26 35	25 98	25 55	25 69	25	25 08	25 1	24 53	24 89	25 12	25 21	25 12	24 73	25 07	24 53	24 53
1	2015	April	Market Prv 1 AM Mkt		23 29	23 53	23 54	24 78	24 78	24 57	24 78	24 41	24 67	24 23	24 06	24 57	24 27	24 33	24 08	24 35	23 37	23 76	24 34	23 49	23 16	23 29	23 54	23 54	23 7	23 57	23 29	23 39	23 08		
1	2013	April	Market Prv 2 AM Mkt		23 12	23 58	23 29	24 6	24 77	24 45	24 78	24 86	24 67	23 69	23 78	24 58	23 77	23 75	23 98	23 64	23 29	23 57	23 83	23 29	23 02	23 02	23 29	23 33	23 29	23 29	23 02	23 02	23 29		
1	2013	April	Market Prv 3 AM Mkt		23 06	23 29	23 21	24 53	24 41	24 78	24 58	24 44	24 78	23 47	23 7	24 49	23 61	23 76	23 97	23 96	23 29	23 29	23 73	23 14	22 31	23 02	23 29	23 57	23 29	23 29	23 29	23 02	23 29		
1	2013	April	Market Prv 4 AM Mkt		23 06	23 13	23 29	24 38	24 42	24 54	24 72	24 42	24 51	23 76	23 7	24 39	23 59	23 78	24 27	23 87	23 34	23 53	23 7	23 14	22 31	23 06	23 29	23 29	23 29	23 29	23 29	22 8	23 06	23 67	
1	2013	April	Market Prv 5 AM Mkt		23 19	23 29	23 29	24 52	24 53	24 43	24 75	24 41	24 78	23 57	24 2	24 55	23 76	23 81	24 21	24 2	23 29	23 55	24 17	23 23	22 54	23 06	23 2	23 27	23 56	23 29	23 06	22 31	23 29	23 06	
1	2013	April	Market Prv 6 AM Mkt		23 54	23 55	23 5	24 73	24 78	24 52	24 78	24 83	24 38	24 58	24 82	23 87	23 86	24 03	24 57	23 76	24 18	24 29	23 38	23 73	23 8	23 56	23 61	23 82	23 74	23 29	23 31	23 67	23 87		
1	2013	April	Market Prv 7 AM Mkt		31 72	31 72	31 92	34 37	32 5	33 74	35 57	34 12	33 36	34 1	34 31	33 57	34 12	34 36	34 1	34 31	33 73	34 37	34 1	32 45	32 46	33 84	23 67	23 06	31 72	31 72	31 55	23 29	23 04	31 72	31 72
1	2013	April	Market Prv 8 AM Mkt		32 42	32 5	33 71	35 57	33 85	25 07	74 78	35 57	36 31	34 37	34 77	35 31	24 49	24 05	34 72	34 37	33 85	34 1	33 85	34 06	33 68	24 18	23 85	33 85	34 41	33 85	33 85	24 1	23 29	32 96	33 85
1	2013	April	Market Prv 9 AM Mkt		32 82	33 63	34 46	35 6	34 37	25 07	25 07	35 61	36 55	35 3	35 23	35 31	25 07	24 43	34 72	34 37	33 85	34 1	33 85	24 38	23 29	32 97	32 85	33 31	33 85	33 63	33 85	24 1	23 29	32 96	33 85
1	2013	April	Market Prv 10 AM Mkt		33 08	33 85	32 29	34 55	34 37	25 07	25 07	34 72	35 31	35 31	35 23	35 35	25 07	24 5	35 4	34 07	33 85	33 85	33 85	24 39	23 76	32 96	33 4	33 85	33 85	33 63	33 85	24 1	23 29	32 96	33 85
1	2013	April

1	2013 August	Market Pts 7 AM Mkt	29 37	29 07	21 44	21 27	27 92	28 51	29 66	30 88	30 88	21 44	20 98	25 07	28 57	29 07	29 63	29 07	20 87	20 19	29 07	29 53	29 61	31	30 58	23 62	20 87	27 92	28 51	29 66	29 61	26 92	19 88
1	2013 August	Market Pts 8 AM Mkt	33 3	31	22 91	21 38	29 47	30 21	30 88	31 85	31 85	23 06	21 09	30 21	29 07	30 22	31 18	30 16	20 94	20 19	29 8	29 92	31	32 04	31 85	23 62	20 94	28 47	30 23	30 88	30 89	28 44	20 19
1	2013 August	Market Pts 9 AM Mkt	33 69	33 49	23 62	23 54	29 8	31 16	32 29	33 9	33 9	23 54	23 54	32 47	30 4	31 46	32 9	31	23 1	20 95	30 58	30 67	32 26	33 8	35 16	23 62	21 27	29 8	31 16	32 29	31 78	28 62	20 95
1	2013 August	Market Pts 10 AM Mkt	36 43	36 02	23 65	23 62	31 73	33 53	35 18	37 92	37 92	25 54	24 82	35 05	33 47	34 07	35 41	32 53	21 44	23 44	31 84	33 24	35 24	36 43	37 39	25 52	22 54	31 73	33 51	35 18	33 61	29 74	21 27
1	2013 August	Market Pts 11 AM Mkt	39 39	39 12	26 17	25 99	33 75	36 58	38 38	40 83	40 83	26 59	26 02	38 06	33 76	36 58	39 43	35 26	23 54	23 58	35 33	34 56	37 22	39 58	40 1	26 72	23 62	33 75	36 56	38 38	32 53	31 06	21 46
1	2013 August	Market Pts Noon Mkt	45 18	41 95	27 24	26 51	35 04	39 83	40 73	42 83	42 83	27 65	26 91	40 32	35 92	39 93	41 89	37 45	23 54	23 92	36 54	35 73	40 44	41 18	43 18	27 78	23 64	35 04	39 33	40 73	35 29	31 96	23 54
1	2013 August	Market Pts 1 PM Mkt	52 7	47 56	28 33	27 24	38 04	43 26	44 31	48 02	48 02	28 85	28 17	43	37 22	41 96	45 81	39 12	23 65	26 19	37 06	37 58	42 16	44 24	46 97	28 72	26 64	38 04	41 26	44 31	37 67	32 66	23 64
1	2013 August	Market Pts 2 PM Mkt	59 47	51 78	28 85	27 65	39 78	44 68	48 97	53 64	53 64	29 24	29 67	46 62	39 65	45 58	50 88	41 38	24 53	26 4	38 06	39 34	44 94	49 12	49 71	27 85	26 19	39 78	44 68	48 97	38 85	32 96	23 62
1	2013 August	Market Pts 3 PM Mkt	62 5	57	30 17	28 15	40 96	47 39	51 22	59 16	59 16	30 03	30 51	52 65	42 25	49 83	55 87	42 82	25 76	26 72	38 8	40 97	47 98	51 54	51 51	28 35	26 71	40 96	47 39	51 22	38 01	34 11	25 54
1	2013 August	Market Pts 4 PM Mkt	64 91	54 48	30 3	28 85	42 97	49 31	52 51	63 44	63 44	30 59	30 94	54 92	44 55	54 92	59 77	44 14	26 02	26 78	38 57	41 89	53 18	53 83	51 86	28 68	27 24	42 97	49 31	52 51	38 22	34 96	26 02
1	2013 August	Market Pts 5 PM Mkt	65 34	59 31	29 31	28 74	48 54	54 91	62 75	64 75	64 75	31 05	31 06	56 63	45 61	56 61	59 14	44 33	26 26	27 24	38 76	41 66	55 74	55 99	51 69	28 85	27 24	44 74	49 54	54 91	38 68	34 12	26 02
1	2013 August	Market Pts 6 PM Mkt	64 71	54 17	30 2	29 25	44 34	48 26	53 84	56 43	56 43	30 89	32 01	54 24	43 9	55 29	55 97	42 65	26 4	27 24	37 94	40 61	54 87	54 77	49 68	28 54	27 53	44 34	48 26	51 84	38 3	34 17	26 02
1	2013 August	Market Pts 7 PM Mkt	59 65	50 73	28 37	28 85	42 56	46 48	47 21	49 78	49 78	30 66	30 99	47 58	41 64	50 61	47 46	39 95	26 19	27 24	37 37	38 67	49 04	47 27	46 19	27 85	27 13	42 58	46 48	47 21	36 32	32 53	26 02
1	2013 August	Market Pts 8 PM Mkt	51 48	44 83	27 85	28 75	39 85	44 37	44 99	44 17	44 17	28 87	30 7	42 84	40 5	46 17	42 92	37 58	25 54	26 94	36 64	38 1	44 17	45 36	44 4	27 65	26 89	39 85	44 37	44 89	35 1	31 27	24 98
1	2013 August	Market Pts 9 PM Mkt	47 36	41 13	27 78	28 62	40 51	43 62	43 61	43 62	43 62	28 02	29 41	39 55	41 36	39 79	41 69	35 26	25 54	26 89	36 57	37 88	43 55	44 15	42 67	27 3	26 72	40 51	43 62	43 61	35 14	30 86	25 35
1	2013 August	Market Pts 10 PM Mkt	42 67	38 88	27 25	28 23	37 51	39 82	40 08	39 78	39 78	28 61	29 79	40 23	37 82	41 57	39 54	34 32	25 54	26 55	34 12	34 49	39 55	41 79	41 12	26 72	26 19	37 51	38 82	40 08	33 02	29 97	23 62
1	2013 August	Market Pts 11 PM Mkt	38 85	37 78	26 19	26 61	36 72	37 65	37 85	38 24	38 24	28 24	26 9	37 65	37 3	36 9	38 6	32 56	32 59	32 08	31 84	31 93	32 12	32 78	33 12	33 28	23 36	27 51	33 41	33 71	33 86	30 66	23 62
1	2013 August	Market Pts 12 AM Mkt	22 41	22 5	23 44	24 11	34 53	34 71	34 08	28 23	33 61	53 28	32 6	32 56	32 59	32 08	21 84	31 93	32 12	32 78	33 12	33 28	23 36	27 51	33 41	33 71	33 86	33 14	32 42	21 89	21 89	21 89	32 5
1	2013 September	Market Pts 1 AM Mkt	21 89	21 89	22 1	23 21	23 62	23 62	23 55	22 05	22 09	22 76	21 88	23 84	21 89	21 79	21 19	21 45	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89
1	2013 September	Market Pts 2 AM Mkt	21 65	21 65	21 89	22 37	23 12	23 38	23 12	22 27	22 24	22 38	21 78	23 6	21 88	21 54	20 89	21 17	21 44	21 89	21 89	21 89	21 89	21 89	21 89	22 28	22 13	22 05	21 89	21 89	21 89	21 66	20 92
1	2013 September	Market Pts 3 AM Mkt	21 43	21 78	21 89	21 89	22 62	23 23	23 23	22 69	22 08	21 89	22 11	21 85	21 79	21 82	21 38	20 14	23 38	21 45	21 89	21 89	21 89	21 89	21 7	21 89	22 1	22 26	21 89	21 86	21 17	20 66	21 51
1	2013 September	Market Pts 4 AM Mkt	21 05	21 38	21 89	22 16	22 45	23 12	22 22	21 89	22 28	21 78	21 84	21 85	21 79	21 82	21 38	20 42	21 57	21 96	21 89	21 89	22 89	22 11	21 38	21 89	22 07	22 28	21 89	21 84	21 17	20 51	21 84
1	2013 September	Market Pts 5 AM Mkt	21 05	21 27	22 08	23 56	23 6	24 01	22 25	22 08	22 05	22 86	21 89	21 89	22 07	21 46	20 55	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	21 89	22 15	22 68	22 3	22 44	21 89	21 56	20 82
1	2013 September	Market Pts 6 AM Mkt	21 05	21 65	21 89	22 45	23 15	23 12	22 22	21 89	22 28	21 78	21 84	21 85	21 79	21 82	21 38	20 42	21 57	21 96	21 89	21 89	22 89	22 11	21 38	21 89	22 07	22 28	21 89	21 84	21 17	20 51	21 84
1	2013 September	Market Pts 7 AM Mkt	21 41	21 78	21 93	22 58	23 05	23 44	22 66	22 13	22 57	22 52	21 47	21 32	21 87	21 58	20 95	21 27	21 87	21 93	22 06	21 89	21 78	22 06	22 58	22 59	22 17	22 57	22 32	21 78	21 17	21 17	21 27
1	2013 September	Market Pts 8 AM Mkt	21 78	21 85	22 52	23 44	23 76	23 81	23 54	22 16	22 58	22 56	21 88	21 87	22 06	21 8	21 38	21 87	21 93	22 49	22 56	22 59	21 89	21 84	22 06	23 44	23 44	22 59	21 87	21 78	21 59	32 06	
1	2013 September	Market Pts 9 AM Mkt	21 89	21 89	22 57	23 44	23 71	24 11	23 62	22 25	22 78	22 78	33 02	21 93	22 57	21 89	21 78	31 8	21 93	22 56	22 59	22 59	21 89	23 44	23 44	23 59	23 44	23 44	32 61	21 87	21 89	21 58	32 06
1	2013 September	Market Pts 10 AM Mkt	22 41	22 5	23 44	24 11	34 53	34 71	34 08	28 23	33 61	53 28	32 6	32 56	32 59	32 08	21 84	31 93	32 12	32 78	33 12	33 28	23 36	27 51	33 41	33 71	33 86	33 14	32 42	21 89	21 89	21 89	32 5
1	2013 September	Market Pts 11 AM Mkt	23 45	23 62	24 11	35 6	35 86	36 8	34 29	34 08	33 86	33 44	33 44	33 05	33 05	32 84	21 89	37 06	32 6	33 83	33 71	33 51	23 91	33 86	34 11	34 03	33 44	33 44	33 44	33 44	33 44	21 93	21 89
1	2013 September	Market Pts Noon Mkt	23 62	24 23	24 11	36 96	36 14	37 75	36 74	24 13	34 11	34 44	33 05	33 14	33 44	33 23	23 12	21 89	32 59	32 78	34 03	33 86	34 02	24 43	23 99	34 09	34 71	34 13	33 86	33 43	23 06	21 89	32 58
1	2013 September	Market Pts 1 PM Mkt	24 16	24 61	37 06	37 28	37 53	38 2	25 18	24 49	34 32	34 32	33 44	33 44	33 44	33 23	21 89	32 32	32 44	34 19	34 11	34 19	34 71	24 48	24 71	36 99	35 08	33 44	33 44	33 03	22 79	22 73	33 05
1	2013 September	Market Pts 2 PM Mkt	24 23	24 76	38 08	39 32	38 67	38 73	25 27	24 68	36 29	33 86	33 44	33 44	33 51	23 52	22 13	32 6	33 71	34 55	34 71	35 06	34 58	24 61	24 61	36 58	38 21	35 07	33 7	33 43	33 43	23 25	23 16
1	2013 September	Market Pts 3 PM Mkt	24 23	24 58	39 43	40 03	39 46	38 98	25 27	24 57	37 75	33 82	33 44	33 73	33 71	23 22	22 31	32 59	33 86	34 73	35 09	36 31	24 76	24 76	24 76	37 75	38 71	35 24	33 73	33 44	23 38	23 54	33 43
1	2013 September	Market Pts 4 PM Mkt	24 48	25 15	39 65	41 26	39 78	38 98	25 59	24 76	37 74	34 13	33 86	33 73	33 86	23 48	22 6	32 98	34 11	35 18	36 42	36 58	24 76	24 61	24 61	38 23	39 34	35 18	33 65	33 44	23 62	23 2	33 43
1	2013 September	Market Pts 5 PM Mkt	24 61	24 76	39 88	41 52	39 26	38 98	25 59	24 97	38 02	34 11	33 44	34 03	33 52	23 52	22 69	32 62	34 11	35 42	36 05	36 96	24 76	24 61	24 61	38 34	38 25	34 85	33 44	33 44	23 62	23 62	33 44
1	2013 September	Market Pts 6 PM Mkt	24 76	25 27	39 37	41 28	39 35	38 66	25 59	25 22	37 75	34 13	33 44	34 08	33 44	23 93	22 61	32 78	34 2	35 18	35 6	36 78	24 68	24 76	38 53	38 08	34 71	33 51	33 05	23 62	23 62	23 62	33 44
1	2013 September	Market Pts 7 PM Mkt	24 72	25 27	39 28	39 81	38 53	38 29	25 27	24 61	36 58	33 44	33 44	33 86	33 05	23 12	23 12	32 78	34 1	34 71	34 71	35 57	24 67	24 61	38 07	37 82	34 29	33 44	32 59	23 38	23 62	33 44	
1	2013 September	Market Pts 8 PM Mkt	24 72	24 73	37 91	39 32	38 14	37 75	25 76	24 76	35 29	33 23	33 22	32 8	31 9	31 96	31 93	23 96	23 1	31 93	31 96	31 96	32 57	31 96	23 34	23 1	23 62	23 34	23 19	23 1	22 96	23 61	23 34
1	2013 September	Market Pts 9 PM Mkt	24 16	25 08	37 75	38 96	38 31	37 75	25 03	24 61	37 06	33 44	33 44	33 86	33 04	23 42	23 2	33 44	34 11	34 56	34 27	34 71	24 76	24 61	38 07	37 82	34 29	33 44	32 59	23 38	23 62	23 62	33 44
1	2013 September	Market Pts 10 PM Mkt	24 08	24 67	36 58	37 49	37 48	36 63	24 72	24 76	34 71	33 14	33 05	33 44	32 78	23 06	22 25	32 59	33 44	34 09	34 11	33 86	24 48	24 48	34 71	35 18	33 71	32 69	32 06	23 12	23 56	33 05	
1	2013 September	Market Pts 11 PM Mkt	23 62	24 22	35 77	35 27	24 7	24 76	24 39	24 13	24 66	24 08	23 78	23 66	23 17	21 87	21 89	23 39	24 08	24 21	24 08	24 09	23 87	24 08	24 47	24 55	24 23	23 62	23 06	21 89	23 12	23 62	
1	2013 September	Market Pts Midnight	22 71	23 62	24 08	24 23	24 23	24 23	23 76	23 93	24 08	23 78	23 62	22 4	21 89	21 57	21 89	22 45	22 87	23 62	23 62	23 12	23 51	24 23	24 08	23 44	21 98	22 21	21 89	21 89	22 22		
1	2013 October	Market Pts 1 AM Mkt	23 65	23 8	23 48	25 1	25 39	24 6	25 12	25 12	23 34	23 34	23 29	23 34	23 3	23 34	23 34	23 65	23 8	23 64	23 24	23 1	23 24	23 34	23 34	23 34	23 34	23 34	23 34	23 86	23 8	23 65	23 34
1	2013 October	Market Pts 2 AM Mkt	23 34	23 73	23 58	24 78	24 32	23 85	24 21	24 86	23 34	23 34	23 34	23 34	23 34	23 22	23 1	23 34	23 33	23 64	23 6	23 26	23 01	23 1	23 34	23 34	23 34	23 34	23 24	23 1	23 34	23 34	23 34
1	2013 October	Market Pts 3 AM Mkt	23 34	23 34	23 34	23 73	23 84	23 8	23 8	23 34	23 34	23 34	23 7	23 2	22 6	23 1	23 2	23 34	23 4	23 34	23 34	23 23	23 1	23 26	23 1	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34
1	2013 October	Market Pts 4 AM Mkt	23 28	23 34	23 34	23 67	23 67	23 34	23 85	23 8	23 34	23 34	23 24	23 1	23 34	23 34	23 34	23 34	23 34	23 23	23 1	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34
1	2013 October	Market Pts 5 AM Mkt	23 34	23 34	23 34	23 69	23 63	23 34	23 91	23 61	23 34	23 34	23 18	23 1	21 48	23 1	23 34	23 34	23 34	23 23	23 5	21 57	23 18	23 34	23 34	23 34	23 34	23 34	23 34	23 1	22 96	23 61	23 34
1	2013 October	Market Pts 6 AM Mkt	23 68	23 91	23 62	24 21	23 72	23 77	24 37	24 37	24 83	23 34	23 34	23 34	23 34	22 58	23 34	23 5	23 34	23 78	23 62	23 1	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 34	23 86	23 75
1	2013 October	Market Pts 7 AM Mkt	32 39	32 36	32 57	32 82	32 84	23 24	33 22	32 8	31 9	31 96	31 93	23 96	23 1	31 93	31 96	31 96	32 57	31 96	23 34	23 1	31 96	31 96	31 96	32 78	31 96	23 34	23 34	33 19	33 33	33 11	32 58
1	2013 October	Market Pts 8 AM Mkt	32 62	33 27	33 21	33 18	24 01	23 55	33 33	33 33	32 57	32 72	32 48	23 56	23 1	33 03	32 58	32 21	32 58	32 78	32 78	32 78	32 78	32 78	31 96	23 34	23 34	23 34	23 34	23 34	23 34	23 86	23 75
1	2013 October	Market Pts 9 AM Mkt	33 05	33 16	33 27	33 33	24 9	23 87	33 33	33 33	32 76	32 87	32 41	24	23 34	32 68	32 83	32 82	33 1	32 58	32 34	23 34	33 05	33 03	32 83	33 17	32 57	23 66	23 69	23 84	33 27	33 33	33 07
1	2013 October	Market Pts 10 AM Mkt	32 83	33 24	33 33	33 33	25 61	24 92	33 57	33 27	33 15	32 86	33 05	24 04	23 34	33 18	32 83	33 05	33 33	32 83	23 71	23 34	32 82	32 99	32 82	33 16	32 88	24 58	23 76	33 33	33 25	33 03	33 04
1	2013 October	Market Pts 11 AM Mkt	33 25	33 33	33 33	33 57	25 86	25 73	24 09	33 36	32 57	32	33 11	33 01	24 35	23 34	32 82	33 1	33 13	33 27	32 79	23 92	23 34	33 1	32 83	33 68	33 15	24 76	37 26	34 11	33 49	32 58	23 56
1	2013 October	Market Pts Noon Mkt	33 21	33 37	33 97	33 33	26 28	26 26	34 18	33 33	33 11	33 27	32 54	23 9	23 34	32 83	33 84	32 83	33 84	33 83	32 82	23 34	32 82	33 84	33 05	33 58	33 19	32 83	25 12	23 8	33 16	32 9	32 81
1	2013 October	Market Pts 1 PM Mkt	33 15	33 36	34 09	33 7	26 37	26 22	35 63	33 33	33 13	33 03	33 11	32 5	23 48	23 34	32 96	33 24	32 84	33 27	32 72	24 49	23 4	33 33	32 92	32 95	32 83	32 79	24 79	23 41	33 33	32 9	32 87
1	2013 October	Market Pts 2 PM Mkt	33 18	33 24	34 18	34 09	26 43	26 23	36 7	33 57	33 1	32 84	32 5	23 74	23 63	33 18	33 12	32 91	33 61	33 13	23 92	23 78	33 24	33 03	32 79	33 03	32 83	32 79	23 48	23 72	33 27	32 8	32 57
1	2013 October	Market Pts 3 PM Mkt	33 3	33 33	34 18	34 18	26 4	26 66	36 81	33 57	33 84	33 84	32 87	23 74	23 34	33 18	32 99	33 13	33 24	32 57	23 72	23 8	33 17	32 83	32 86	33 04	32 53	24 04	23 34	32 7	32 86	32 5	32 83
1	2013 October	Market Pts 4 PM Mkt	33 33	33 69	34 18	34 18	26 84	26 8	37 61	33 66	32 68	32 57	31 96	23 34	23 45	33 18	33 07	33 27	33 28	32 71	24 15	24 04	23 85	32 6	32 71	32 5	32 6	32 71	23 34	23 34	23 34	32 23	32 57
1	2013 October	Market Pts 5 PM Mkt	33 33	33 69	34 62	34 68	26 8	26 8	37 62	33 33	32 86	32 5	31 96	23 58	23 84	33 33	32 84	33 18	33 26	32 54	24 06	23 87	33 17	32 58	32 86	32 83	32 24	23 85	23 84	33 11	32 5	32 57	32 81
1	2013 October	Market Pts 6 AM Mkt	33 84	33 57	34 3	34 56	26 8	26 8	37 23	33 33	32 77	33 02	31 96	23 73	24 17	33 33	33 21	33 02	33 27	32 43	23 91	24 5	33 21	32 88	33 07	33 07	32 62	24 38	23 6	33 21	32 98	32 57	33 04
1	2013 October	Market Pts 7 PM Mkt	33 61	33 69	34 18	34 09	26 8	26 8	35 84	33 33	32 76	33 07	31 96	23 84	25 05	33 17	33 18	33 33	33 33	32 57	24 35	24 73	33 27	33 33	33 33	33 26	32 5	25	24 6	33 21	32 98	32 57	33 04
1	2013 October	Market Pts 8 PM Mkt	33 33	33 37	34 18	34 09	26 8	26 86	36 36	33 33	33 17	33 27	32 24	24 2	25 12	33 34	33 37	33 33	33 69	32 57	24 46	25 12	33 27	33 07	33 03	33 33	32 58	25 12	25 27	33 33	32 37	33 09	33 15
1	2013 October	Market Pts 9 PM Mkt	33 84	33 81	34 18	34 09	26 48	26 8	35 68	33 28	32 79	33 18	32 49	24 05	25 12	33 32	33 12	33 33	33 28	32 46	24 35	25 12	33 28	33 12	33 26	32 82	32 53	24 83	25 45	33 16	33 19	33 05	33 24
1	2013 October	Market Pts 10 PM Mkt	33 17	33 33	33 93	33 91	26 19	26 25	34 19	33 23	33 05	32 77	31 96	23 81	24 72	33 18	32 88	33 33	33 26	32 25	24 16	24 85	32 95	32 66	33 27	33 12	31 96	23 76	25 12	33 17	32 86	32 58	32 9
1	2013 October	Market Pts 11 PM Mkt	25 68	25 84	26 25	25 82	25 89	26 23	25 86	25 21	24 72	24 35	24 34	23 81	24 95	24 78	25 12	25 63	24 61	23 34	23 75	24 81	25 89	24 82	24 53	23 72	24 35	25 12	25 17	25 12	25 12		
1	2013 October	Market Pts Midnight	24 89	24 83	25 63	25 63	25 68	25 7	25 7	24 25	23 76	23 86	23 34	23 34	23 34	23 73	23 74	24 85	24 58	23 73	23 34	23 34	23 5	23 79	23 48	23 77	23 34	23 34	23 42	24 57	24 23	23 42	23 34
2	2013 November	Market Pts 1 AM Mkt	24 74	24 95	24 58	24 58	25 06	25 6	26 45	25 13	24 74	24 58	24 74	24 67	24 58	25 09	25 98	25 87	24 58	24 58	24 58	24 58	24 58	25 86	25 01	25 22	25 76	26 3	25 6	27 08	27		
2	2013 November	Market Pts 2 AM Mkt	24 58	24 58	24 58	24 5	24 58	25 89	25 01	24 58	24 58	24 58	24 58	24 65	24 88	25 58	25 78	24 58	24 58	24 58	24 58	24 58	24 58	25 87	25 06	25 05	25 76	25 96	26 2	26 25	25 82		
2	2013 November	Market Pts 3 AM Mkt	24 58	24 58	24 58	24 58	24 96	24 88	25 6	24 58	24 66	24 58	24 58	24 58	24 58	24 8	25 6	25 6	24 58	24 58	24 58	24 58	24 58	24 58	24 58	25 87	25 06	25 05	25 76	25 96	26 25	25 82	
2	2013 November	Market Pts 4 AM Mkt	24 58	24 88	24 58	24 53	24 58	25 6	25 92	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	25 6	25 6	24 49	24 58	24 58	24 58	24 58	24 42	24 58	25 6	25 01	24 71	25 63	25 6	24 9
2	2013 November	Market Pts 5 AM Mkt	25 1	24 58	24 58	24 58	24 74	25 34	26 45	24 74	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 58	24 42	24 58	25 6	25 01	24 71	25 76	25 93	24 74	24 35	25 65
2	2013 November	Market Pts 6 AM Mkt	25 6	24 58	24 43	25 97	25 25	24 45	27 08	26 05	24 74	24 74	24 74	24 74	25 03	25 76	27 05	25 6	24 58	25 33	24 95	24 97	24 31	25 6	26 23	25 14	26 07	26 12	28 08	26 62	28 44	26 78	
2	2013 November	Market Pts 7 AM Mkt	33 01	24 74	24 78	32 71	32 83	33 12	33 77	33 02	25 6	24 73	31 95	30 88	31 49	32 71	32 88	26 04	24 77	33 03	31 49	30 18	25 6	29 85	29 79	25 32	33 03	33 03	35 7	33 71	37 41		
2	2013 November	Market Pts 8 AM Mkt	33 88	25 61	25 05	33 12	33 03	34 4	35 52	33 12	25 99	25 03	33 03	32 38	32 71	33 02	35 65	27 08	24 85	33 03	33 03	32 1	25 75	31 96	27 05	25 6	33 17	33 62	38	33 03	38 75	28 23	
2	2013 November	Market Pts 9 AM Mkt	33 6	26 3	25 22	33 03	33 03	33 88	33 39	27 08	25 97	33 03	32 47	32 71	33 12	35 33	27 08	25 6	33 56	32 83	32 71	25 78	32 5	32 7	27 08	25 97	33 88	33 48	36 72	33 12	37 76	28 77	
2	2013 November	Market Pts 10 AM Mkt	33 12	26

| | | |

1	2014 October	Market Pri	9 Phil Mkt	33.32	33.68	33.6	27.15	27.48	35.18	32.8	32.32	32.7	32.02	24.65	25.75	32.84	32.64	32.85	32.8	31.99	24.96	25.75	32.8	32.64	32.78	32.44	32.06	25.45	26.09	32.68	32.71	32.57	32.76	31.92
1	2014 October	Market Pri	10 Phil Mkt	32.85	33.44	33.44	26.85	26.91	33.68	32.75	32.57	32.3	31.5	24.41	25.34	32.7	32.41	32.85	32.78	31.78	24.77	25.48	32.47	32.19	32.79	32.64	31.5	24.36	25.75	32.69	32.39	32.11	32.42	31.81
1	2014 October	Market Pri	11 Phil Mkt	26.49	26.91	26.57	26.54	26.89	26.51	25.64	25.75	25.34	24.96	23.92	24.41	25.58	25.4	25.75	26.28	25.23	23.82	24.35	25.54	25.52	25.75	25.44	25.15	24.31	24.96	25.75	25.75	25.75	25.75	25.89
1	2014 November	Market Pri	4 Midnight	25.45	26.28	26.28	26.33	26.35	26.35	24.86	24.86	24.46	23.92	23.92	23.92	24.32	24.33	24.86	25.21	24.32	23.82	23.82	24.09	24.39	24.07	24.37	23.82	23.82	24.01	25.19	24.84	24.01	24.07	25.45
1	2014 November	Market Pri	1 AM Mkt	25.34	24.97	24.97	25.45	26.01	26.87	25.53	25.13	24.97	25.13	25.06	24.97	25.49	26.39	26.28	24.97	24.97	24.97	24.97	24.97	24.97	24.97	25.62	26.17	26.72	26.01	27.5	27.43	25.43		
1	2014 November	Market Pri	2 AM Mkt	24.97	24.97	24.97	24.97	25.96	26.3	25.4	24.97	24.97	24.97	25.04	25.27	26	26.19	24.97	24.97	24.97	24.97	24.97	24.97	26.28	25.45	25.44	26.17	26.37	26.01	26.67	26.33	23.92		
1	2014 November	Market Pri	3 AM Mkt	24.97	24.97	24.97	25.15	25.27	26.01	24.97	24.97	24.97	24.97	25.19	26.01	26.01	24.97	24.97	24.97	24.72	24.97	24.97	25.47	25.53	25.02	26.05	26.01	25.29	26.81	26.04	23.77			
1	2014 November	Market Pri	4 AM Mkt	25.27	24.97	24.92	24.97	26.01	26.33	24.97	24.97	24.98	24.97	24.97	24.97	26.01	26.01	24.87	24.97	24.97	24.97	24.97	24.97	26.01	25.4	25.3	26.17	26.24	25.13	26.77	26.06	24.11		
1	2014 November	Market Pri	5 AM Mkt	24.97	24.97	24.97	25.13	25.74	26.87	25.13	24.97	24.97	24.97	24.97	25.2	26.26	26.01	24.88	25.11	24.97	24.97	24.72	24.97	25.47	25.53	25.02	26.05	26.01	25.29	26.81	26.04	23.77		
1	2014 November	Market Pri	6 AM Mkt	24.97	24.82	24.58	25.75	26.87	27.5	26.47	25.13	25.23	25.17	25.42	26.17	27.47	26.01	24.97	25.73	25.34	25.36	24.72	26.01	26.65	25.54	26.49	26.54	28.52	27.05	28.89	27.27	24.71		
1	2014 November	Market Pri	7 AM Mkt	25.13	25.17	25.38	25.51	32.79	33.43	32.71	26.01	25.17	31.64	30.58	31.17	32.38	33.54	26.45	25.16	32.71	31.17	29.88	25.02	30.55	26.71	25.72	32.71	32.71	34.85	33.65	36.76	27.84	23.77	
1	2014 November	Market Pri	8 AM Mkt	26.02	25.44	32.79	32.71	34.06	35.17	32.79	26.4	25.42	32.71	32.06	32.38	32.79	33.5	27.5	25.24	32.71	32.71	31.28	25.3	33.55	26.26	26.37	33.54	32.29	37.62	33.99	38.37	28.68	24.08	
1	2014 November	Market Pri	9 AM Mkt	26.72	25.62	32.71	32.71	33.98	33.54	33.06	27.5	26.38	32.71	32.15	32.38	32.79	34.98	27.5	26.01	33.23	32.51	32.38	25.2	33.78	26.38	33.54	32.15	36.36	34.08	37.39	39.23	29.51	23.6	
1	2014 November	Market Pri	10 AM Mkt	27.09	25.13	32.71	32.71	33.54	33.54	33.18	27.5	26.87	32.71	32.51	32.71	33.14	34.91	27.5	26.87	33.26	32.39	32.38	26.14	31.98	27.79	26.87	33.54	32.91	35.56	33.99	36.6	28.97	25.6	
1	2014 November	Market Pri	11 AM Mkt	27.09	25.52	32.79	32.79	33.54	33.54	32.79	27.65	26.45	32.71	32.51	32.71	33.54	34.17	27.65	26.75	33.26	32.51	32.71	26.98	32.18	28.06	26.87	33.54	32.11	34.23	33.97	35.6	29.13	25.82	
1	2014 November	Market Pri	Noon Mkt	26.87	25.02	32.71	32.71	33.19	32.71	32.79	27.43	26.01	32.71	32.38	32.38	33.41	33.54	27.73	26.42	32.79	32.51	32.62	26.9	31.88	27.43	26.77	33.85	32.79	34.23	33.82	34.97	29.13	25.97	
1	2014 November	Market Pri	1 PM Mkt	26.45	25.63	32.71	32.71	32.79	32.74	32.71	26	26.13	32.71	31.88	32.38	33.26	33.26	26.87	26.08	32.71	31.96	32.38	26.4	31.69	26.87	26.36	33.71	32.71	33.54	33.75	33.53	29.13	25.88	
1	2014 November	Market Pri	2 PM Mkt	26.18	24.97	32.51	32.71	32.86	32.71	32.64	26.6	26.19	32.71	32.12	32.38	33.54	33.7	26.54	25.4	32.71	31.88	32.38	25.86	30.58	26.87	26.54	33.54	32.71	33.1	33.5	33.54	28.79	25.91	
1	2014 November	Market Pri	3 PM Mkt	26.21	24.97	31.88	32.71	32.79	32.6	32.51	26.01	25.4	31.88	31.88	32.71	33.26	32.79	26.38	25.13	32.71	31.88	32.16	25.21	30.55	26.37	26.01	33.15	32.39	32.71	33.13	33.15	28.68	25.6	
1	2014 November	Market Pri	4 PM Mkt	25.82	25.52	31.88	32.48	32.71	32.71	31.31	26.01	25.26	31.88	31.88	32.38	33.26	32.71	26.38	25.16	32.71	31.88	32.38	25.3	30.55	26.26	26.01	33.54	32.51	32.79	33.26	33.15	28.85	25.75	
1	2014 November	Market Pri	5 PM Mkt	26.17	25.72	32.51	32.71	33.13	32.71	32.38	26.56	26.35	32.51	31.88	32.67	33.54	32.71	26.43	26.01	32.71	31.88	32.71	25.18	31.54	26.87	26.87	34.8	32.71	34.55	33.79	34.46	29.22	26.33	
1	2014 November	Market Pri	6 PM Mkt	26.32	26.87	33.25	33.54	34.64	33.38	32.79	27.5	28.06	33.12	32.79	33.26	36.73	33.7	27.74	28.12	33.95	32.71	33.26	25.86	32.67	28.02	28.68	36.58	34.22	36.4	34.86	36.64	29.49	27.72	
1	2014 November	Market Pri	7 PM Mkt	26.87	27.63	33.54	35.68	35.99	33.54	33.71	28.01	28.09	27.75	33.26	33.54	37.21	34.73	28.06	28.89	33.54	32.71	32.79	26.13	32.71	28.31	28.68	35.98	36.64	36.24	35.47	36.81	29.71	27.86	
1	2014 November	Market Pri	8 PM Mkt	26.87	27.5	32.71	33.54	35.98	33.54	33.71	27.5	27.69	32.71	32.71	33.02	36.65	33.54	27.5	28.68	32.79	32.79	32.71	26.12	32.51	28.45	28.71	35.27	36.45	35.51	34.86	36.44	29.41	27.58	
1	2014 November	Market Pri	9 PM Mkt	26.87	27.5	32.71	34.05	33.54	33.26	32.71	27.92	27.5	32.71	32.6	32.71	36.1	33.26	27.5	28.29	33.12	32.53	32.12	26.24	32.51	27.65	28.68	34.26	35.74	35.07	34.57	35.76	29.13	27.31	
1	2014 November	Market Pri	10 PM Mkt	26.32	26.3	31.88	32.79	32.71	32.71	32.38	27.43	26.76	31.88	32.88	32.12	33.54	32.71	27.11	27.5	32.38	31.88	32.31	26.14	32.35	27.65	28.05	33.08	34.23	33.65	34.61	34.93	28.82	26.35	
1	2014 November	Market Pri	11 PM Mkt	25.4	24.97	26.49	27.65	28.56	27.56	27.43	26.12	25.34	26.87	26.87	28.53	28.68	26.41	26.87	26.87	28.53	26.01	26.01	25.47	27.43	26.45	28.68	28.9	28.68	29.41	29.13	27.92	26.12		
1	2014 November	Market Pri	Midnight	24.97	25.06	26.02	26.8	27.5	26.45	26.4	25.13	24.97	24.97	25.13	26.01	27.18	27.43	25.27	25.13	25.12	25.59	25.77	24.97	26.87	26.01	25.99	26.49	28.01	27.43	28.68	28.68	27.47	25.58	
1	2015 January	Market Pri	1 AM Mkt	23.13	24.9	24.76	26.22	25.44	24.2	23.65	23.02	23.42	23.58	23.69	24.46	24.48	24.51	25.31	26.51	24.38	24.76	24.2	23.74	22.48	24.14	22.67	23.45	23.4	23.89	23.18	23.93	23.61	22.27	22.21
1	2015 January	Market Pri	2 AM Mkt	22.88	24.7	24.53	26.08	24.76	24.11	23	22.48	22.48	22.5	23.23	23.22	23.84	24.2	24.2	24.76	24.26	24.58	24.52	23.43	22.57	22.48	23.57	23.03	22.61	22.62	23.3	23.57	23.59	22.89	21.76	21.76
1	2015 January	Market Pri	3 AM Mkt	22.47	24.7	24.55	26.22	24.7	23.28	23.24	22.48	22.48	23.15	22.48	23.45	24.02	24.2	24.99	25.98	24.17	24.64	23.57	23.48	22.48	23.43	23.43	22.85	22.51	22.88	23.15	23.14	23.45	22.92	20.66	20.66
1	2015 January	Market Pri	4 AM Mkt	23.84	25.21	24.76	26.49	25.06	24.08	22.48	23.39	22.68	23.47	23.65	23.76	23.84	24.2	26.1	26.49	24.51	24.76	22.62	22.48	21.94	23.65	22.27	23.81	22.81	22.95	22.96	23.29	23	22.81	20.66	20.66
1	2015 January	Market Pri	5 AM Mkt	24.52	26.49	26.22	27.43	26.22	23.81	24.45	23.84	24.2	24.53	24.2	24.7	27.14	27.14	25.13	26.22	24.2	22.48	22.75	23.48	22.48	22.75	23.48	23.09	24.12	23.08	23.81	24.19	20.66	20.66	
1	2015 January	Market Pri	6 AM Mkt	24.61	28.24	27.98	40.9	37.56	24.7	23.82	24.32	23.84	33.84	33.84	34.92	36.08	24.37	24.2	39.23	28.78	34.61	34.61	23.82	22.81	22.99	30.91	23.52	31.67	23.53	23.57	23.6	23.51	26.72	28.72
1	2014 December	Market Pri	8 PM Mkt	38.37	39.58	38.94	42.05	38.19	24.74	24.15	36.29	35.98	35.74	36.61	37.4	25.27	24.36	41.64	41.68	37.12	38.53	36	24.7	23.51	33.58	32.79	26.35	32.48	33.84	23.58	24.09	33.84	33.84	29.03
1	2014 December	Market Pri	9 PM Mkt	38.24	39.01	38.64	41.37	39.01	25.82	24.35	36.61	35.58	35.57	36.61	37.43	26.78	25.24	41.38	40.84	36.92	38.53	36.48	24.61	24.08	33.84	32.99	27.09	32.48	34.67	24.43	24.35	33.84	30.11	30.13
1	2014 December	Market Pri	10 PM Mkt	39.15	38.53	38.53	40.25	38.64	26.49	24.74	36.61	35.71	36.53	37.25	38.84	26.28	40.76	39.45	36.61	37.67	36.49	24.71	24.2	34.42	32.62	27.68	32.48	35.53	24.7	24.76	33.63	30.49		
1	2014 December	Market Pri	11 AM Mkt	38.8	38.53	38.53	39.6	38.91	26.49	24.76	36.86	35.26	35.83	36.61	37.24	27.25	26.49	41.34	38.53	36.61	37.72	36.61	24.71	24.5	34.42	33.67	27.6	35.14	36	26.94	26.49	33.65	33.84	30.49
1	2014 December	Market Pri	Noon Mkt	38.53	37.9	38.26	38.34	38.53	26.49	24.76	36.61	34.93	36	36.61	36.61	27.4	26.94	39.65	38.1	35.71	36.61	36.48	24.7	24.74	33.78	31.56	26.76	34.15	35.55	25.16	24.45	33.51	31.36	30.66
1	2014 December	Market Pri	1 PM Mkt	38.53	38.25	38.53	37.58	38.24	25.27	24.76	36	34.67	35.58	36.61	36.86	27.14	26.49	39.23	36.63	36.2	35.71	35.55	24.33	24.69	33.68	30.9	26.09	33.28	35.86	24.76	24.7	33.51	32.03	32.03
1	2014 December	Market Pri	2 PM Mkt	38	36.61	38.55	37.65	37.85	25.16	24.76	35.65	34.62	35.58	36.61	36.61	27.12	26.94	39.17	36.61	35.87	36.02	34.6	24.2	24.54	32.79	30.4	25.8	32.99	35.71	24.46	24.46	32.99	32.8	32.8
1	2014 December	Market Pri	3 PM Mkt	37.6	36.61	36.53	37.23	37.25	25.07	24.76	35.71	34.67	35.49	36.61	35.71	26.99	26.49	38.92	36.58	35.71	35.55	36.12	23.84	24.08	32.46	31.65	29.97	32.73	32.48	24.51	24.7	34.05	32.26	32.05
1	2014 December	Market Pri	4 PM Mkt	37.23	36.86	39.13	37.47	36.8	25.09	24.74	36.04	34.67	35.71	36.61	35.99	27.04	26.49	38.53	36.61	35.04	35.71	33.84	24.05	24.2	31.58	29.6	25.73	33.04	34.67	24.46	24.2	32.26	32.74	32.74
1	2014 December	Market Pri	5 PM Mkt	38.24	37.52	38.61	38.25	37.15	26.49	25.5	35.5	36.93	36	36.61	37.92	27.05	27.59	26.97	39.15	37.19	37.18	36.16	35.35	24.29	24.7	32.26	30	25.8	34.27	35.55	24.76	24.68	32.25	32.99
1	2014 December	Market Pri	6 PM Mkt	41.06	39.24	41.57	40.88	38.95	27.46	26.94	37.44	38	38.53	39.06	38.62	27.87	28.26	41.78	39.18	38.74	37.97	36.61	25.38	26.49	32.99	30.89	27.48	34.74	36.41	26.5	26.22	33.84	33.55	33.55
1	2014 December	Market Pri	7 PM Mkt	41.43	40.94	43.03	41.6	38.96	27.43	26.94	38.53	38.19	38.68	38.93	38.56	27.94	28.29	43.55	40.37	38.88	38.24	36.61	25.67	26.94	32.71	33.84	27.6	35.14	36	26.94	26.49	33.65	33.84	33.84
1	2014 December	Market Pri	8 PM Mkt	41.04	40.15	42.42	41.33	37.67	27.24	26.94	37.58	37.23	38.18	39.06	38.38	27.88	28.15	42.45	40.08	38.53	37.86	36	25.44	27.14	33.5	32.04	27.6	34.44	35.55	26.94	26.28	33.51	33.84	33.84
1	2014 December	Market Pri	9 PM Mkt	39.15	38.53	38.53	40.51	37.23	27.4	26.29	36.68	36.61	37.05	38.93	37.96	27.82	27.94	41.76	39.56	38.44	37.76	35.05	24.76	26.84	33.51	32.26	27.6	34.27	35.2	26.49	26.01	33.51	33.53	33.53
1	2014 December	Market Pri	10 PM Mkt	38.58	38.53	39.01	39.18	36.61	26.41	25.82	35.57	35.84	36.61	36.61	36.94	27.44	27.44	40.87	38.52	37.77	36.61	36.38	24.2	26.29	32.99	32.26	27.1	32.48	33.84	25.85	24.43	32.96	33.24	33.24
1	2014 December	Market Pri	11 PM Mkt	27.42	27.18	27.82	27.3	26.53	25.82	24.57	25.82	24.76	26.49	26.94	26.94	26.49	27.14	27.92	27.15	26.94	26.49	24.76	24.2	25.82	24.2	24.74	24.76	24.76	24.46	24.76	24.7	24.2	23.94	23.84
1	2015 January	Market Pri	1 AM Mkt	26.38	26.36	26.94	26.49	24.74	24.53	23.91	24.2	24.2	24.48	24.76	25.82	25.19	26.49	26.94	26.01	26.01	25.01	24.2	23.9	25.24	23.86	23.16	23.87	24.2	24	24.53	24.11	23.61	23.49	23.49
1	2015 January	Market Pri	2 AM Mkt	29.41	24.99	26.83	26.18	27.65	25	25.2	26.43	24.12	25.82	28.09	26.75	25.83	23.6	25.81	26	29.78	27.34	25.49	22.81	24.8	27.42	26.76	25.82	24.53	26.69	26.07	25.42	25.42	31.29	29.02
1	2015 January	Market Pri	3 AM Mkt	25.84	27	22.27	25.58	24.42	25.2	22.37	20.55	24.52	24.84	26.84	26.36	23.41	19.7	24.26	26.49	27.85	25.62	25.05	19.1	24.23	24.41	24.27	23.13	24.18	24.74	23.84	24.56	24.56	30.93	28.62
1	2015 January	Market Pri	4 AM Mkt	24.51	25.35	21.24	24.49	22.67	25.31	18.83	17.74	24.43	24.75	25.99	23	18.4	24.18	26.23	27.51	26.1	24.52	17.79	22.97	24.56	25.51	22.28	22.71	24.15	24.41	24.89	24.89	30.58	29.06	31.22
1	2015 January	Market Pri	5 AM Mkt	23.29	24.82	21.02	21.97	23.09	26.05	18.68	15.3	23.87	24.57	25.55	22.58	19.28	23.56	25.51	26.43	24.61	23.44	15.11	22.24	24.36	25.23	21.85	22.98	23.65	24.76	24.86	24.86	30.58	29.01	30.13
1	2015 January	Market Pri	6 AM Mkt	23.42	24.8	19.49	23.61	21.88	26.28	19.28	18.21	24.15	26.91	25.53	23.19	18.64	24.37	26.36	27.42	24.37	22.76	14.31	22.92	24.79	24.81	19.97	23.67	24.96	23.09	25.09	31.29	30.32	30.46	
1	2015 January	Market Pri	7 AM Mkt	28.48	32.99	21.08	24.67	30.04	31.03	28.05	24.96	30.57	27.47	26.24	27.01	25.18	28.64	32.37	33.13	25.48	23.94	24.83	24.69	28.26	29.98	27.28	23.44	23.51	31.23	31.7	31.7	46.41	41.64	31.22
1	2015 January	Market Pri	8 AM Mkt	34.12	41.37	28.88	26.42	35.52	36.34	32.32	31.23	40.25	28.74	27.43	31.82	30.96	33.4	38.31	43.52	26.64	25.67	31.83	40.32	42.84	41.29	35.19	28.64	24.9	43.18	37.65	37.65	47.9	42.6	31.22
1	2015 January	Market Pri	9 AM Mkt	38.06	45.18	29.34	29.83	39.17	38.27	34.43	36.09	43.85	30.01	34.98	36.58	37.81	41.38	55.1	29.03	28.2	38.67	39.04	44.28	43.08	44.21	38.54	27.55	49.71	44.09	44.09	47.4	43.1	31.3	
1	2015 January	Market Pri	10 AM Mkt	32.4	41.08	29.53	29.21	34.64	36.12	34.07	33.56	44.41	32.37	29.12	34.53	33.6	36.16	39.54	43.53	29.41	28.74	33.64	37.43	40.04	40.55	34.86	28.45	27.58	45.18	40.12	40.12	47.6	42.6	31.3
1	2015 January	Market Pri	11 AM Mkt	30.56	40.08	31.21	30.62	33.18	34.07	31.74	32.42	43.67	34.52	29.64	34.64	32.67	36.18	37.33	42.2	31.12	27.81	33.52	38.22	40.85	39.03	40.16	35.58	27.33	43.98	39.83	38.63	47.1	43.1	31.22
1	2015 January	Market Pri	12 AM Mkt	30.56	38.85	30.42	30.72	31.91	34.33	31.53	32.45	40.47	33.41	29.34	34.99	33.09	34.02	36.41	37.63	30.12	27.61	32.96	36.68	38.75	39.73	39.51	34.83	27.43	42.17	38.43	38.43	47.19	42.6	31.3
1	2015 January	Market Pri	1 PM Mkt	29.34	34.99	29.57	31.04	31.58	33.79	31.2	32.4	41.38	33.15	28.58	34.28	32.41	33.54	35.73	36.38	28.36	27.25	32.41	35.37	36.81	37.55	37.07	32.08	27.55	41.51	37.43	37.43	46.72	42.53	31.22
1	2015 January	Market Pri	2 PM Mkt	28.13	34.48	28.63	29.57	30.42	33.05	31.14	31.12	36.26	28.55	28.24	32.55	31.21	32.82	34.46	33.18	27.8	26.25	31.95	33.42	33.78	34.88	35.11	30.56	26.68	34.99	35.49	35.68	45.27	41.25	30.61
1	2015 January	Market Pri	3 PM Mkt	27.41	33.09	27.89	28.95	29.45	31.59	31.12	30.95	35.67	27.74	26.96	31.77	30.62	32.18	34.17	32.95	27.48	25.26	31.5	32.44	32.69	35.08	34.27	28.23	26.54	34.64	34.44	34.11	34.32	46.44	41.94
1	2015 January	Market Pri	4 PM Mkt	24.96	32.26	26.81	28.43	29.78	31.26	30.84	30.82	33.54	26.84	27.15	31.5	30.33	31.75	33.58	32.03	26.38	25.18	31.37	31.44	31.71	33.91	33.72	28.51	26.03	33.58	33.19	33.19	46.38	41.94	30.61
1	2015 January	Market Pri	5 PM Mkt	26.81	31.63	26.32	28.11	28.98	30.82	30.58	30.7	32.91	26.21	26.06	29.48	31.29	33.05	31.56	29.36	24.47	24.03	30.33	30.63	31.06	33.04	31.55	27.78	25.54	32.57	32.47	32.47	46.44	41.38	30.61
1	2015 January	Market Pri	6 PM Mkt	27.22	32.26	27.45	28.53	29.67	31.26	31.04	31.7	33.3	27.44	27.44	31.64	30.78	31.71	33.56	32.19	26.28	25.27	31.18	31.13	31.8	34.01	31.55	29.94	26.28	32.73	32.58	32.58	46.68	42.25	30.84
1	2015 January	Market Pri	7 PM Mkt	28.28	33.71	28.97	28.79	27.8	29.02	28.45	28.65	31.68	27.28	27.28	30.75	28.83	30.38	31.41	30.97	25.64	25.03	29.45	29.62	28.02	31.57	29.49	28.42	25.73	31.98	30.61	31.65	36.19	33.98	44.27
1	2015 January	Market Pri	8 PM Mkt	30.82	36.35	29.76	32.26	32.94	36.15	32.6	33.58	38.17	30.62	30.3	33.58	36.96	35.84	40.89	34.33	28.99	27.93	34.2	34.93	35.5	37.85	31.98	30.61	31.65	36.19	33.98	33.98	44.27	42.44	31.33
1	2015 January	Market Pri	9 PM Mkt	30.82	42.89	31.98	27.74	30.69	28.46	29.83	31.89	29.78	29.47	28.97	30.65	29.99	33.83	28.88	27.7	26.8	28.91	28.09	29.16	30.62	27.99	30.25	31.04	30.21	29.65	29.65	31.74	31.3	31.3	
1	2015 January	Market Pri	10 PM Mkt	31.25	43.5	42.18	41.99	42	42.24	31.5	31.12	39.56	38.45	39.99	41.85	42.31	31.34	30.53	39.56	36.79	37.49	37.01	37.96	30.5	28.62	37.75	36.83	30.03	38.16	37.11	29.15			
1	2015 January	Market Pri	11 AM Mkt	31.53	42.95	42.38	41.16	41.58	41.63	31.68	30.8	39.56	38.49	40.85	41.55	41.85	31.43	30.8	39.08	36.79	36.92	36.99	37.49	30.8	28.62	38.06	36.88	37.06	37.05	37.11	29.2			
1	2015 January	Market Pri	Noon Mkt	31.43	42.23	41.88	41.31	41.1	39.56	31.5	30.58	38.42	38.47	40.29	41.05	41.59	31.27	30.36	38.58	36.24	36.8	36.55	37.49	30.7	28.62	37.89	36.88	36.92	36.88	37.06	29.23			
1	2015 February	Market Pri	1 PM Mkt	30.8	41.58	42.24	38.87	40.16	39.56	30.8	30.33	38.45	38.49	39.56	39.56	42.1	30.68	30.32	37.9	36.67	36.81	36.92	36.91	30.15	28.62	37.54	36.46	36.79	36.79	36.27	29.2			
1	2015 February	Market Pri	2 PM Mkt	31.05	41.46	42.12	40.16	39.56	38.78	30.76	30.32	38.16	38.55	39.56	39.56	39.09	30.78	29.96	37.

| | | |

| | | |

| | | |

1	2017 April	Market Pri 1 AM Mkt	24.67	24.92	23.46	25.85	23.95	23.9	25.59	25	25.94	23.49	24.34	24.1	24.01	24.67	23.31	23.33	22.23	23.96	23.51	24.1	23.47	22.97	22.86	23.57	22.94	22.97	22.74	23.46	23.11	23.44
1	2017 April	Market Pri 2 AM Mkt	23.68	24.42	24.06	24.42	23.63	23.76	23.61	23.9	25.29	23.37	23.24	23.18	23.96	23.27	22.5	22.97	22.64	22.45	22.73	23.49	22.28	21.74	22.44	21.88	22.06	22.12	22.23	22.13	22.04	23.07
1	2017 April	Market Pri 3 AM Mkt	23.76	24.4	23.8	23.96	24.33	22.74	24.77	23.95	24.84	23.24	22.64	23.45	22.51	24.01	22.37	22.84	22.08	22.37	22.97	22.1	23.23	21.84	22.12	21.45	21.67	22.05	21.49	22.97	21.94	22.97
1	2017 April	Market Pri 4 AM Mkt	23.45	23.81	25.12	23.82	23.61	23.96	23.14	23.76	24.33	23.89	23.39	22.97	23.68	22.64	21.99	22.05	22.64	21.81	22.37	23.45	22.22	21.49	22	21.9	21.34	21.66	22.07	21.37	21.54	22.64
1	2017 April	Market Pri 5 AM Mkt	23.76	24.76	24.39	25.06	22.97	23.96	24.2	23.86	24.82	22.81	23.06	22.12	22.79	23.45	21.94	22.37	22.12	22.12	21.65	23.3	22.57	21.95	21.98	21.56	21.74	21.24	22.1	21.92	21.66	22.98
1	2017 April	Market Pri 6 AM Mkt	23.34	23.36	27.24	27.96	24.55	25.39	24.57	23.61	23.45	25.05	23.61	23.18	24.1	23.46	21.96	21.56	22.74	23.14	23.61	25.71	23.52	21.5	21.09	22.51	22.12	22.08	22.87	22.1	21.46	21.98
1	2017 April	Market Pri 7 AM Mkt	25.85	24.49	34.33	34.75	30.48	30.8	30.81	27.23	24.56	34.71	30.96	27.05	29.83	30.9	23.46	22.37	28.34	30.48	30.71	31.14	31	23.71	21.43	26.36	27.55	26.97	28.01	26.9	22.12	22.37
1	2017 April	Market Pri 8 AM Mkt	28.47	24.67	34.73	37.38	34.77	34.97	25.58	29.6	24.67	35.36	34.76	34.52	32.58	34.45	24.36	22.14	32.84	33.54	32.48	34.34	33.44	24.25	21.24	31.41	33.24	32.37	32.79	32.96	23.45	22.97
1	2017 April	Market Pri 9 AM Mkt	31.56	27.99	34.96	36.42	34.94	35.88	35.95	31.69	25.85	35.88	35.21	34.92	34.89	34.66	28.47	23.73	31.61	33.76	34.18	34.66	34.04	28.63	22.08	32.21	33.96	33.78	33.9	34.26	27.09	24.55
1	2017 April	Market Pri 10 AM Mkt	31.25	29.54	36.32	35.55	36.56	36.46	36.65	34.1	29.85	34.77	34.66	35.33	35.34	34.76	28.47	23.93	31.92	34.73	33.84	33.92	34.76	27.81	23.29	32.56	34.04	34.73	33.81	34.09	29.3	27.48
1	2017 April	Market Pri 11 AM Mkt	32.02	31.06	36.77	35.88	35.89	36.78	36.53	33.92	29.85	34.77	34.68	34.86	34.9	34.9	29.74	25.18	34.15	34.65	34.76	34.28	34.63	27.81	24.56	34.22	34.62	34.73	34.62	34.62	31.21	28.36
1	2017 April	Market Pri Noon Mkt	31.74	26.42	38.83	36.9	36.21	37.1	36.23	32.1	24.41	36.02	36.77	36.05	34.84	35.29	26.66	24.1	34.7	34.75	34.69	34.61	33.92	27.24	23.27	34.75	35.16	35.74	34.62	34.34	31.38	26.2
1	2017 April	Market Pri 1 PM Mkt	31.76	28.81	38.41	34.76	36.64	36.77	36.07	31.38	26.08	36.51	36.75	37.05	36.71	34.79	27.46	26.42	34.86	34.75	34.75	34.42	34.38	26.1	24.86	34.76	35.42	36.24	34.7	34.4	28.58	27.89
1	2017 April	Market Pri 2 PM Mkt	31.16	28.23	37.62	36.02	34.41	35.08	36.35	32.2	25.52	37.49	36.51	36.72	36.15	35.56	26.07	25.39	34.89	34.75	34.6	34.52	34.43	25.18	24.67	34.89	35.53	36.39	34.75	34.73	27.06	26.41
1	2017 April	Market Pri 3 PM Mkt	29.77	27.49	36.66	35.48	35.44	36.87	36.75	29.27	27.49	34.93	36.34	35	35.97	34.94	25.85	23.95	34.76	34.76	34.6	33.54	34.76	24.1	25.06	36.21	34.66	35.34	35.44	34.75	24.6	27.07
1	2017 April	Market Pri 4 PM Mkt	26.06	25.85	34.99	35.03	34.72	35.74	34.76	31.45	26.16	34.8	35.62	35.63	36.55	33.81	27.03	27.81	34.59	34.6	32.56	34.38	33.71	25.95	25.38	34.89	35.19	35.43	34.83	33.8	27.08	27.2
1	2017 April	Market Pri 5 PM Mkt	31.48	25.34	34.76	34.76	35.22	34.89	34.84	31.79	24.58	33.64	34.64	35.58	34.88	33.44	29.17	27.36	34.73	34.58	33.76	33.13	33.11	27.86	26.2	34.67	34.76	35.63	34.67	34.29	29.41	26.09
1	2017 April	Market Pri 6 PM Mkt	31.29	27.74	34.9	34.89	35.27	35.76	34.89	31.95	27.74	33.95	34.76	35.49	34.79	33.81	28.88	28.7	34.73	34.58	33.54	33.54	33.55	27.66	26.54	34.74	34.89	35.02	34.73	34.15	28.99	27.88
1	2017 April	Market Pri 7 PM Mkt	31.38	25.39	35.48	34.97	34.76	36.5	36.44	31.4	26.44	33.54	33.44	34.76	34.95	32.23	26.61	26.32	34.07	33.56	33.18	33.54	32.84	26.08	26.08	34.76	34.64	34.08	33.82	33.44	27.83	26.26
1	2017 April	Market Pri 8 PM Mkt	33.44	29.03	39.7	37.83	34.6	38.24	36.63	35.61	26.1	34.73	34.93	34.73	34.92	31.63	31.24	27.73	34.08	34.64	30.78	33.81	33.24	27.91	25.58	34.76	34.89	33.76	34.61	33.54	31.47	26.84
1	2017 April	Market Pri 9 PM Mkt	33.23	28.46	37.82	35.81	36.6	38.39	35.44	36.02	28.35	37.13	34.76	35.38	37.08	34.52	31.21	28.42	35.12	34.62	33.79	34.69	33.54	27.88	25.95	34.76	34.79	34.93	34.78	34.63	31.32	28.47
1	2017 April	Market Pri 10 PM Mkt	32.08	27.85	36.51	36.99	34.84	36.96	34.99	31.69	26.46	36.29	33.73	34.76	33.1	33.83	27.86	24.77	34.96	34.77	34.76	33.55	34.61	32.77	29.17	25.6	34.88	34.76	34.59	34.83	33.44	32.02
1	2017 April	Market Pri 11 PM Mkt	31.83	30.44	31.86	32.27	31.54	32.02	32.88	31.53	31.74	33.64	32.38	33.03	33.03	32.1	31.85	27.53	29.94	32.55	31.2	31.55	32.02	29.25	26.34	27.3	31.52	31.4	30.88	32.27	29.55	29.08
1	2017 April	Market Pri Midnight A	28.94	25.18	29.37	27.43	26.58	28.64	30.7	28.24	25.99	28.77	25.25	26.2	27.33	25.53	24.57	24.46	25.79	23.9	25.39	25.39	24.39	24.18	23.61	23.1	25.09	24.39	25.44	25.27	24.54	24.53
2	2017 May	Market Pri 1 AM Mkt	27.66	27.84	31.66	23.39	23.01	23.12	21.14	21.63	22.34	23.14	22.07	21.8	21.63	20.81	21.96	22.66	23.84	23.72	23.02	23.33	20.84	21.46	21.83	22.66	23.16	23.58	23.66	21.48	21.95	23
2	2017 May	Market Pri 2 AM Mkt	21.84	21.62	21.8	23.58	22.58	22.16	20.93	21.29	22.16	21.71	21.4	21.33	20.67	22.42	21.8	22.21	22.66	21.84	22.07	22.52	21.72	22.04	21.83	22.23	21.72	22.04	21.83	22.23	20.73	21.08
2	2017 May	Market Pri 3 AM Mkt	21.84	21.18	21.74	21.62	21.36	21.54	21.07	21.09	21.84	21.83	21.25	20.8	20.89	20.68	20.77	21.54	22.49	21.53	21.34	21.35	20.72	20.89	21.53	21.28	21.46	21.4	21.44	20.81	21.16	21.6
2	2017 May	Market Pri 4 AM Mkt	21.84	21.15	21.41	21.46	21.08	21.32	21.05	21.09	21.39	21.28	21.84	21.06	20.65	20.8	20.56	20.75	20.74	21.34	21.61	21.15	21.23	20.72	20.77	20.99	21.08	21.32	20.95	21.29	20.88	21.09
2	2017 May	Market Pri 5 AM Mkt	21.84	21.1	21.54	21.84	21.07	21.67	21.1	21.39	21.83	21.8	21.24	20.74	21.01	20.68	20.79	20.76	21.59	21.23	21.4	21.33	20.77	20.84	21.08	20.95	21.54	20.95	21.31	20.95	21.53	20.74
2	2017 May	Market Pri 6 AM Mkt	24.07	22.5	22.83	23.28	21.85	21.84	21.29	22.66	23.83	23.82	22.1	21.51	22.12	20.69	21.3	21.3	22.08	22.07	21.96	21.5	21.76	21.56	21.52	23	21.84	21.86	21.58	21.79	21.92	21.8
2	2017 May	Market Pri 7 AM Mkt	38.11	34.42	36.05	36.1	33.6	32.23	31.54	35.87	39.43	39.67	34.84	31.37	31.54	29.6	30.19	31.76	31.86	33.23	32.52	31.58	30.78	29.35	32.98	31.23	32.33	30.86	31.8	30.77	29.84	30.62
2	2017 May	Market Pri 8 AM Mkt	39.4	39.38	40.48	39	38.53	32.52	31.57	38.3	42.67	39.17	38.99	36.94	31.84	30.79	36.06	38.47	38.5	37.84	38.35	31.86	31.06	30.55	37.51	36.51	38.23	36.95	32.23	31.22	29.61	35.93
2	2017 May	Market Pri 9 AM Mkt	41.63	39.39	39.4	39.4	40.99	32.82	32.92	39.42	42.13	40.48	39.73	38.46	32.66	31.27	39.31	40.13	39.47	38.57	40.05	33.11	31.6	31.27	38.76	38.61	40.18	39.42	33.37	31.54	30.45	38.44
2	2017 May	Market Pri 10 AM Mkt	43.71	42.48	40.46	39.62	39.82	36.11	33.33	40.83	41.73	40.48	39.86	40.22	33.72	32.66	40.48	40.85	40.63	39.56	40.48	34.9	32.56	32.56	39.4	39.49	40.9	40.81	40.13	34.99	33.83	31.99
2	2017 May	Market Pri 11 AM Mkt	41.78	40.33	40.48	38.86	39.51	36.66	33.55	39.76	40.85	40.48	39.45	39.86	34.86	34.41	40.48	40.48	40.48	40.48	40.48	36.88	33.33	33.68	40.48	40.48	40.48	40.48	40.48	36.35	34.41	33.78
2	2017 May	Market Pri Noon Mkt	42	39.65	39.45	39.82	40.81	35.45	33.33	40.96	40.85	39.4	39.54	38.99	34.19	33.17	42.23	42.92	43.83	40.6	40.62	36.18	33.05	33.72	39.2	40.83	39.4	40.85	40.85	38.16	33.47	33.8
2	2017 May	Market Pri 1 PM Mkt	40.48	40.48	39.37	38.62	40.13	35.43	33.14	40.08	40.85	39.4	39.28	38.5	33.81	33.21	41.73	45.49	44.81	40.81	41.61	37.78	33.07	33.75	39.71	40.48	41.4	40.85	40.16	34.36	33.8	40.85
2	2017 May	Market Pri 2 PM Mkt	39.53	39.71	39.4	39.86	39.64	35.53	33.09	40.48	39.72	39.33	39.4	39.48	25.23	23.47	42.16	45.76	43.74	41.57	42.04	37.94	33.47	34.45	40.48	40.48	42.93	40.85	41.09	34.24	31.71	41.48
2	2017 May	Market Pri 3 PM Mkt	39.4	39.47	39.4	40.37	24.2	22.91	39.4	39.86	37.84	39.66	39.63	25.02	23.28	42.81	46.15	45.62	44.29	42.38	42.81	23.11	39.4	40.85	40.66	44.07	40.62	29.49	25.78	33.49	41.67	40.25
2	2017 May	Market Pri 4 PM Mkt	38.93	40.02	37.84	39.05	38.09	23.7	22.53	39.4	39.56	36.57	39.17	38.59	24.85	23.84	41.63	46.69	46.85	44.84	42.45	27.69	23.97	39.4	40.85	40.84	43.77	40.48	28.64	24.66	33.34	41.62
2	2017 May	Market Pri 5 PM Mkt	40.29	39.4	37.84	37.84	39.4	22.82	22.92	39.4	38.62	36.76	38.88	39.36	26.41	23.88	41.75	46.88	47.26	44.56	42.04	28.09	23.7	40.2	40.93	41.02	43.68	40.62	29.56	26.95	33.6	41.2
2	2017 May	Market Pri 6 PM Mkt	39.09	39.4	37.84	36.81	37.84	23.68	22.84	40.48	38.2	34.7	37.3	37.84	24.81	23.72	41.39	45.29	47.21	42.04	41.58	27.7	23.72	39.4	40.84	40.97	43.4	39.66	27.58	25.88	33.92	41.13
2	2017 May	Market Pri 7 PM Mkt	37.84	38.13	37.44	37.5	37.68	23.41	22.72	39.39	37.84	35.24	34.7	36.1	24.22	23.47	40.42	43.7	45.78	40.88	40.85	26.45	23.2	39.01	40.61	41.24	41.99	39.51	27.36	24.84	32.6	40.62
2	2017 May	Market Pri 8 PM Mkt	37.84	38.48	37.72	38.2	37.11	23.72	23.46	39.55	38.2	34.06	37.53	35.16	24.09	23.84	40.9	42.03	44.21	41.78	40.85	25.58	23.72	37.84	38.43	41.23	41.01	38.29	27.55	25.55	32.13	39.56
2	2017 May	Market Pri 9 PM Mkt	39.68	37.84	39.82	40.23	39.4	25.61	23.82	40.28	40.35	40.48	39.24	37.59	25.33	25.57	41.56	42.77	44.27	41.77	40.48	27.48	23.74	38.43	38.2	40.11	40.11	38.47	28.67	27.78	31.6	39.59
2	2017 May	Market Pri 10 PM Mkt	39.62	39.4	39.54	40.85	38.37	26.25	27.1	40.67	38.94	39.4	39.61	37.84	27.5	26.94	40.85	41.84	45.29	41.07	40.48	26.82	25.57	39.32	40.32	40.85	40.85	40.08	29.46	29.82	32.65	40.45
2	2017 May	Market Pri 11 PM Mkt	26.6	37.73	28.18	29.93	27.88	24.17	24.49	28.41	28.18	26.3	28.03	27.06	23.76	24.56	31.27	33.09	31.31	31.31	30.08	23.92	23.72	27.1	29.21	29.87	30.96	30.61	26.13	28.12	31.31	30.61
2	2017 May	Market Pri Midnight A	23.43	24.05	23.79	24.21	24.28	22.95	23.33	23.84	24.23	23.26	23.72	23.72	22.12	22.75	24.02	29.02	26.47	26.26	26.58	22.24	22.53	22.77	23.84	24.05	23.77	26.5	23.45	24.22	26.89	24.74
2	2017 June	Market Pri 1 AM Mkt	23.75	23.99	23.3	22.78	22.54	22.86	23.76	23.78	24.4	23.83	24.1	26.18	27.86	30.57	29.64	32.88	28.91	26.9	27.13	28.98	27.22	25.44	25.24	23.83	23.57	24.34	25.86	24.6	31.71	41.68
2	2017 June	Market Pri 2 AM Mkt	23.07	23.05	22.56	21.51	21.16	21.63	23.05	23.07	23.34	23.36	23.63	25.28	25.78	26.83	26.87	28.12	26.54	25.36	25.28	27.3	25.62	25.12	23.93	23.45	23.26	23.47	24.34	25.65	26.48	27.42
2	2017 June	Market Pri 3 AM Mkt	22.78	22.72	21.63	21.08	20.86	21.34	22.78	22.75	22.91	22.75	23.21	24.62	24.94	25.58	26.25	26.24	25.28	24.5	24.93	26	25.23	24.5	23.78	23.18	23.05	23.07	23.66	24.84	24.93	26.23
2	2017 June	Market Pri 4 AM Mkt	22.69	22.31	21.16	19.75	19.86	21.37	22.31	22.56	22.65	22.53	22.75	23.95	24.46	25.04	25.23	25.46	24.95	23.82	24.74	25.37	24.84	23.82	23.47	22.78	22.31	22.78	23.31	23.96	23.93	25.19
2	2017 June	Market Pri 5 AM Mkt	22.91	22.31	21.34	20.03	19.87	21.5	22.41	22.78	22.78	22.52	22.59	23.82	24.64	24.95	25.05	25.47	24.84	23.68	24.95	25.37	24.71	23.91	23.61	22.79	22.15	22.84	23.47	23.77	24.22	24.97
2	2017 June	Market Pri 6 AM Mkt	23.78	23.38	21.38	19.75	20.33	23.07	23.07	23.46	22.61	22.52	24.81	25.28	25.28	26.29	26.22	24.86	23.78	25.23	26.25	25.24	24.84	23.88	22.98	21.81	23.59	24.05	24.19	24.85	25.65
2	2017 June	Market Pri 7 AM Mkt	23.09	22.64	21.81	20.62	19.55	22.34	22.64	23.33	23.29	22.99	25.52	26.42	26.58	27.5	30.73	28.74	25.23	23.78	26.57	26.42	26.01	25.18	23.52	23.33	21.81	22.83	23.62	25.8	26.69	28.27
2	2017 June	Market Pri 8 AM Mkt	26.86	25.21	23.07	23.38	24.08	25.36	27.16	27.47	27.14	27.18	33.26	33.15	35.82	37.4	38.72	26.24	24.52	36.71	36.15	31.28	28.56	27.16	23.67	23	26.11	27.94	30.79	31.15	37.81
2	2017 June	Market Pri 9 AM Mkt	28.96	27.48	23.77	23.05	21	26.99	28.17	31.78	32.94	35.49	35.04	38.95	37.98	40.01	40.66	41.9	39.35	25.66	39.63	40.14	37.8	35.13	33.04	24.99	23.67	32.7	35.15	37.52	38.88	40.99
2	2017 June	Market Pri 10 AM Mkt	32.83	31.05	24.6	23.77	22.08	30.91	32.56	34.56	34.95	37.23	37.14	40.15	41.5	44.04	44.06	45.65	37.92	28.65	44.15	44.79	39.2	37.19	35.85	25.86	24.81	37.52	38.72	39.97	40.96	43.46
2	2017 June	Market Pri Noon Mkt	34.32	33.67	24.86	24.27	22.64	34.44	33.95	36.21	36.79	31.59	31.09	45.16	44.85	46.79	47.4	48.8	41.65	32.54	47.54	50.19	40.07	38.99	37.98	28.12	25.84	38.91	40.74	41.48	43.04	48.31
2	2017 June	Market Pri 1 PM Mkt	35.5	34.9	25.28	24.42	23.2	35.27	37.17	37.27	38.02	36.32	37.02	46.35	46.32	47.02	48.42	50.01	51.38	51.7	43.18	38.29	49.6	37.61	40.66	29.77	28.5	29	28.14	39.61	42.83	44.28
2	2017 June	Market Pri 2 PM Mkt	36.11	35.5	25.28	24.66	22.84	37.32	36.02	37.48	38.13	37.08	39.64	49.03	51.5	54.41	57.18	54.44	43.18	41.29	52.68	44.77	42.1	40.69	39.2	29.34	29.66	40.97	44.94	46.47	49.35	54.49
2	2017 June	Market Pri 3 PM Mkt	37.32	37.33	25.28	24.63	23.09	37.87	35.74	37.98	38.51	37.35	41.21	51	56.46	58.88	64.81	59.57	43.85	42.41	57.54	65.18	41.78	41.33	39.53	30.06	31.58	41.65	47.31	46.85	54.16	67.48
2	2017 June	Market Pri 4 PM Mkt	37.23	37.03	24.99	24.84	22.87	37.24	36.74	38.27	38.68	38.15	42.93	52.58	60.34	66.68	69.7	61.81	43.89	43.57	61.3	61.82	44.28	41.48	39.44	29.58	31.46	42.18	49.11	50.01	55.53	73.9
2	2017 June	Market Pri 5 PM Mkt	37.3	35.46	25.53	25.23	23.52	37.89	37.22	38.3	38.64	38.4	42.87	54.04	63.22	67.91	73.1	62.82	44.3	43.82	62.22	66.87	44.33	41.82	39.76	30.47	32.07	42.41	50.54	52.25	58.73	81.56
2	2017 June	Market Pri 6 PM Mkt	37.4	35.42	25.54	24.86	24.18	37.69	36.98	38.44	37.9	39.97	43.23	54.39	63.91	66.23	78.15	61.45	44.05	43.4	70.14	54.6	43.44	42.08	39.31	31.52	34.04	44.43	50.8	53.76	62.7	83.17
2	2017 June	Market Pri 7 PM Mkt	37.4	33.12	25.42	24.91	24.31	37.21	36	37.98	37.87	41.05	43.49	52.75	60.78	64.32	68.97	56.83	43.88	43.82	67.85	64.4	41.8	41.65	39.11	31.86	33.81	43.84	50.13	54.2	63.92	76.36
2	2017 June	Market Pri 8 PM Mkt	34.29	31.35	25.28	25.01	24.07	35.61	34.67	37.16	37.12	39.64	43.56	51.12	58.4	58.09	60.15	52.3	43.32	43.23	63.05	57.43	40.47	40.57	37.98	30.47	33.07	42.37	48.1	49.54	58.77	68.1
2	2017 June	Market Pri 9 PM Mkt	34.44	26.97	24.84	24.84	23.95	34.68	32.74	34.69	35.5	38.93	42.53	48.94	52.96	51.06	52.38	49.1	41.71	42.93	55.29	50.51	39.3	38.01	36.48	29.58	32.45	41.05	46.05	45.58	50.49	57.28
2	2017 June	Market Pri 10 PM Mkt	34.78	26.99	25.3	24.54	25	35.02	32.68	35.7	34.34	38.27	42.78	47.03	50.16	49.31	50.71	46.94	41.58	42.41	52.18	47.93	38.88	38.67	35.04	30.11	32.09	40.12	44.31	43.55	48.68	52.28
2	2017 June	Market Pri 11 PM Mkt	34.07	26.68	25.24	25.23	25.22	34.82	34.06	36.34	33.94	38.23	42.41	45.63	48.23	48.01	49.61	45.38	42.35	43.63	49.78	46.77	39.09	38.63	34.58	30.45	34.04	39.49	43.62	42.31	47.85	50.06
2	2017 June	Market Pri Midnight A	29.08	26.15	24.93	24.5	24.54	28.86	27.78	32.25	30.5	33.85	38.64	42.55	45.08	43.08	43.26	44.2	41.25	39.03	40.56	43.87	42.41	33.66	34.04	30.44	28.3	31.58	40.25	41.62	40.78	45.28
3	2017 July	Market Pri 1 AM Mkt	27.08	24.85	26.95	30.82	28.32	29	26.58	23.41	22	22.67	22.19	23.44	23.44	24.03	23.68	23.53	24.81	26.6	26.6	26.57	27.52	28.5	26.99	31.54	27.52	29.52	33.45	32.76	30.85	27.26
3	2017 July	Market Pri 2 AM Mkt	24.55	23.36	24.36	25.6	25.29	25.56	23.88	22.36	21.39	23.74	22.56	23.05	22.86	22.78	22.22	22	23.53	24.2	23.81	24.36	25.31	25.1	24.37	26.04	24.71	26.82	28.09	28.48	27.64	24.55
3	2017 July	Market Pri 3 AM Mkt	23.04	22.69	23.39	24.37	23.84	24.03	23.26	21.76	21.18	21.83	21.93	22.05	21.37	21.51	21.54	22.32	23.14	23.62	23.53	23.56	23.66	23.51	23.61	24	25.04	26.47	25.61	24.62	23.66	26.23
3	2017 July	Market Pri 4 AM Mkt	22.21	21.85	23.06	23.09	23.22	21.26	22.92	21.68	20.72	21.1	21.58	22.05	21.58	21.24	21.13	21.74	22.93	23.29	23.09	23.04	23.17	22.34	22.44	23.91	23.63	23.64	24.77	24.02	23.64	22.72
3	2017 July	Market Pri 5 AM Mkt	21.74	21.91	23.08	23.44	23.44	22.8	21.51	20.69	21	21.59	21.96	21.95	21.68	21.1	21.1	21.96	22.85	23.12	23.04	23.17	22.34	22.44	23.91	23.44	23.68	24.97	23.97	23.16	22.43	25.32
3	2017 July	Market Pri 6 AM Mkt	21.74	21.68	23.91	24.38	23.56	23.9	23.05	21.18	20.53	21.03	21.89	22.09	22.05	21.37	21.04	20.95	22.86	23.21	23.53	23.44	23.58	22.51	22.21	25.06	23.97	23.91	24.97	24.64	23.17	22.22
3	2017 July	Market Pri 7 AM

| | | |

| | | |

1	2019 January	Market Pri 10 Phd Mkt	36.27	41.15	41.62	40.4	30.17	28.86	41.55	42.77	43.86	42.78	41.53	32.88	31.57	41.61	42.88	40.24	42.49	43.24	41.19	43.15	51.49	52.35	48.75	48.66	47.92	43.91	44.23	48.5	47.19	46.42	49.89
1	2019 January	Market Pri 12 Phd Mkt	32.23	32.27	32.05	30.17	28.31	30.11	30.17	35.42	39.38	42.31	32.23	34.56	29.86	32.23	39.38	29.47	32.23	42.87	39.62	42.81	46.42	45.58	43.22	39.7	42.53	38.38	43.46	41.71	39.38	42.74	44.42
1	2019 January	Market Pri Midnight 1	28.49	32.54	31.85	29.43	27.56	28.01	31.95	29.46	29.86	31.57	35.84	31.28	28.49	29.58	29	29.96	35.42	39.14	30.17	39.38	44.44	43.46	38.93	31.15	36.12	36.26	39.98	35.42	31.08	34.34	43.46
1	2019 February	Market Pri 1 Alm Mkt	31.05	29.42	29.11	30.56	30.64	29.84	29.84	30.44	29.84	27.66	28.01	28.46	28.05	30.02	33.2	30.76	37.61	27.84	28.05	27.42	29.4	31.35	30.62	28.41	27.93	28.46	28.63	29.42			
1	2019 February	Market Pri 2 Phd Mkt	30.71	28.83	28.34	30.14	27.88	29.4	28.43	29.72	29.62	27.51	28.03	26.66	27.9	28.35	33.25	30.03	27.08	27.82	27.54	26.47	28.05	30.65	30.14	27.87	27.84	27.63	27.93	28.05			
1	2019 February	Market Pri 3 Alm Mkt	29.84	28.83	28.4	30.66	28.64	29.84	28.83	28.83	29.03	27.94	27.84	26.27	27.82	29.25	31.24	29.43	26.88	27.32	26.55	27.54	28.83	29.87	29.84	27.68	27.72	26.66	27.94	28.46			
1	2019 February	Market Pri 4 Alm Mkt	30.76	28.65	27.95	31.17	28.83	30.03	28.46	29.4	29.06	27.06	28	26.53	27.73	29.43	31.45	29.55	27.21	27.79	26.58	27.88	28.46	30.35	29.72	27.57	27.87	26.5	28.6	28.46			
1	2019 February	Market Pri 5 Alm Mkt	31.2	28.83	28.17	31.72	29.87	31.66	29.03	30.64	29.54	27.96	28.05	26.52	28.46	29.35	32.78	29.55	27.54	26.89	26.64	28.2	28.7	31.05	30.55	27.9	27.93	26.88	29.4	28.69			
1	2019 February	Market Pri 6 Alm Mkt	35.39	28.83	28.12	30.61	28.83	30.62	29.44	35.07	30.14	28.13	28.97	27.94	30.14	34.01	31.95	30.14	27.54	29.4	27.91	29.43	31.2	30.14	31.2	27.94	28.98	27.54	31.67	30.87			
1	2019 February	Market Pri 7 Alm Mkt	47.88	30.14	28.46	43.36	40.6	43.34	40.26	40.34	34.44	29.24	36.75	30.56	39.06	40.43	43.16	33.19	28.88	28.27	36.96	36.26	40.26	35.01	28.05	34.19	33.85	40.46	39.52				
1	2019 February	Market Pri 8 Alm Mkt	47.6	34.9	31.74	43.85	40.47	43.93	40.34	40.1	35.7	30.14	36.96	32.08	40.1	40.83	40.85	33.54	29.43	36.96	33.85	36.96	40.44	40.43	31.2	29.84	36.96	36.96	40.28	41.74			
1	2019 February	Market Pri 9 Phd Mkt	47.09	35.15	33.18	42.05	40.4	41.72	40.56	42.26	34.95	30.63	36.75	33.85	39.23	42.05	40.8	29.42	30.14	40.43	30.56	38.82	40.77	41.74	30.89	30.65	36.96	36.75	38.05	41.81			
1	2019 February	Market Pri 11 Alm Mkt	45.6	38.23	30.09	41.81	38.12	41.48	40.42	47.37	35.68	30.64	40.11	36.96	40.1	41.87	40.41	30.58	30.89	40.26	36.56	40.08	40.2	40.78	31.95	30.64	36.96	34.19	37.36	41.74			
1	2019 February	Market Pri Mission Mkt	43.42	35.28	28.81	41.2	40.48	40.8	40.26	36.91	28.95	29.4	40.16	36.75	40.44	40.77	39.92	29.65	29.09	41.65	30.56	40.8	43.91	41.56	31.54	29.77	39.98	36.96	34.08	39.84			
1	2018 February	Market Pri 1 Phd Mkt	41.9	31.54	28.46	40.43	36.96	40.73	40.17	36.86	30.8	28.34	33.55	36.75	40	41.27	39.22	31.24	28.71	36.96	30.57	38.19	40.5	36.96	29.61	29.42	36.96	36.83	36.96	40.42			
1	2018 February	Market Pri 2 Phd Mkt	40.62	30.14	27.92	40.36	35.07	40.46	40.83	34.79	28.83	27.05	33.45	38.17	40.42	40.61	36.96	28.7	28.04	39.18	30.56	38.17	39.96	40.47	28.83	28.83	36.75	36.75	38.17	39.32			
1	2018 February	Market Pri 3 Phd Mkt	40.26	32.71	27.94	40.26	36.75	40.43	36.96	28.37	28.46	26.99	33.09	33.85	40.1	40.44	36.76	28.62	28.05	36.92	29.42	36.96	39.55	39.83	28.75	28.53	36.96	36.75	36.75	39.28			
1	2018 February	Market Pri 4 Phd Mkt	38.17	30.89	29.11	39.15	33.85	39.86	36.93	29.54	28.06	27.54	37.96	34.89	40.1	40.26	33.37	27.98	28.13	36.93	29.84	36.75	39.18	33.85	31.64	29.2	36.96	30.64	38.17	40.26			
1	2018 February	Market Pri 5 Phd Mkt	39.18	31.51	29.54	39.93	36.17	40.43	40.33	28.83	28.43	27.31	37.26	33.85	40.44	40.24	31.57	28	28.22	36.75	30.56	37.9	38.17	30.56	30.74	28.83	36.75	33.85	35.08	39.37			
1	2018 February	Market Pri 6 Phd Mkt	41.78	31.53	28.83	40.36	37.19	41.93	41.57	31.33	28.62	28.83	34.65	37.91	40.61	42.05	35.89	29.42	29.44	36.96	33.85	36.26	40.81	39.54	28.83	29.53	36.74	36.96	39.26	41.66			
1	2018 February	Market Pri 7 Phd Mkt	41.9	35.58	31.54	42.83	41.74	43.29	42.1	36.19	28.75	30.62	39.06	36.96	41.74	43.72	36.96	28.75	29.84	36.96	36.96	41.2	42.8	40.74	31.38	29.43	37.31	33.84	41.85	41.84			
1	2018 February	Market Pri 8 Phd Mkt	41.74	35.38	31.88	42.46	41.88	43.56	42.06	35.24	28.96	30.45	39.98	36.96	41.74	43.54	40.61	29.02	28.94	39.83	37.27	41.74	41.74	41.78	30.01	29.15	40.1	40.26	41.78	41.74			
1	2018 February	Market Pri 9 Phd Mkt	42.13	31.95	31.54	40.56	41.74	41.83	39.69	33.37	30.62	36.75	34.66	41	42.07	38.73	28.83	28.89	39.18	36.96	40.83	40.58	40.55	29.8	29.43	39.95	40.03	40.81	41.84				
1	2018 February	Market Pri 10 Phd Mkt	40.79	31.04	30.14	40.26	39.19	40.77	39.2	30.17	31.17	30.8	34.74	33.85	40.54	41.58	36.36	31.6	28.74	33.85	30.17	40.01	40.81	40.45	29.25	28.5	36.96	38.81	38.9	39.95			
1	2018 February	Market Pri 11 Phd Mkt	35.39	29.4	29.84	34.84	31.95	35.31	37.47	32.56	30.14	29.29	32.96	32.58	38.63	38.63	38.67	29.55	29.55	31.2	29.04	31.4	38.28	36.96	29.88	28.87	33.17	31.54	34.81	31.95			
1	2018 February	Market Pri Midnight 1	30.75	28.7	31.06	29.55	32.54	29.55	31.59	30.25	28.13	28.74	29.87	29.4	32.83	36.55	31.14	28.05	28.46	29	28.42	30.68	34.6	31.95	29.83	28.83	30.14	29.43	31.34	33.31			
1	2019 March	Market Pri 2 Alm Mkt	28.03	27.53	29.17	27.91	28.76	31.61	31.48	30.42	27.27	28.21	26.27	26.6	30.66	30.29	30.72	27.42	26.4	27.91	28.46	28.42	28.45	29.54	27.17	28.51	29.18	27.64	27.2	28.21	27.92	27.05	27.82	28.44
1	2019 March	Market Pri 3 Alm Mkt	28.45	27.35	29.15	27.66	28.21	31.37	31.71	31.61	27.72	28.35	26.28	26.94	30.75	30.99	29.54	29.31	28.45	27.08	27.99	28.96	28.52	28.02	27.53	28.8	27.73	27.83	27.53	26.81	27.91	28.81	
1	2019 March	Market Pri 4 Alm Mkt	28.38	27.08	29.02	28.06	29.14	31.62	32.49	31.15	27.74	27.92	26.45	27.41	31.25	30.77	29.6	28.72	28.32	28.82	28.45	28.7	29.27	30.2	27.95	28.21	27.92	27.38	27.72	27.82	27.92	26.77	27.46
1	2019 March	Market Pri 5 Alm Mkt	29.01	27.53	29.98	29.42	29.57	33.09	32.87	31.45	27.93	28.73	27.71	27.73	32.26	29.43	29.82	29.01	28.45	30.12	29.54	29.64	30.66	30.6	28.21	28.72	28.45	27.82	28.45	28.4	27.53	26.64	27.56
1	2019 March	Market Pri 6 Alm Mkt	29.59	27.91	33.01	33.42	33.38	36.67	35.37	32.92	29.15	34.4	30.2	34.12	33.01	33.06	29.54	28.67	36.34	31.27	33.41	33.69	33.88	26.86	28.82	31.66	29.54	30.27	30.75	28.73	27.08	27.92	
1	2019 March	Market Pri 7 Alm Mkt	29.51	28.45	35	33.84	39.15	44.32	44.72	42.68	29.54	29.77	30.96	35.64	43.98	43.32	35.55	29.39	29.54	39.09	36.34	35.55	35.03	35.55	27.91	28.53	35.79	33.84	34.44	33.55	31.07	28.32	28.82
1	2019 March	Market Pri 8 Alm Mkt	33.26	29.62	36.5	40.38	39.96	46.02	45.64	44.41	30.76	31.38	35.55	39.62	45.41	44	40.46	31.53	32.38	40.59	38.92	38.86	36.68	39.31	31.19	30.71	39.02	36.14	36.3	36.11	35.58	26.15	29.93
1	2019 March	Market Pri 9 Alm Mkt	31.47	31.84	37.55	40.53	39.92	45.38	43.97	41.02	34.77	32.5	35.01	38.58	44.18	40.45	39.69	35.81	34.14	38.25	38.7	39.21	36.35	39.58	34.66	30.6	38.56	36.22	39.06	36.04	32.33	32.45	31.49
1	2019 March	Market Pri 10 Alm Mkt	33.42	31.53	37.95	40.38	39.74	42.64	40.79	40.38	29.43	32.91	36.3	39.23	42.72	41	40.98	37.92	34.57	39	38.6	39.17	37.21	38.59	34.56	33.14	39.14	36.11	39.08	34.81	31.99	32.25	33.56
1	2019 March	Market Pri 11 Alm Mkt	35.55	28.57	39.94	40.38	40.3	42.18	40.36	39	30.6	32.45	38.19	39.61	40.81	39.34	39.31	36.29	34.15	38.85	37.25	39.23	35.32	38.46	34.58	33.95	38.81	36.17	39.62	35.55	33.58	33.38	33.31
1	2019 March	Market Pri Mission Mkt	34.78	31.19	37.99	40.16	40.47	42.83	40.82	38.63	33.99	31.63	37.68	39.27	41	39.31	39.34	34.12	34.11	39.17	39.01	39.1	35.1	36.3	34.56	32.74	38.02	36.7	39.31	36.3	35.93	33.48	28.45
1	2019 March	Market Pri 1 Phd Mkt	35.72	31.53	34.35	39.71	40.24	39.39	38.67	36.3	31.74	30.12	36.3	38.68	39.53	39.51	39.74	35.05	32.84	38.31	36.3	39.36	36.3	33.84	33.17	32.74	36.3	38.17	39.11	35.53	30.47	30.87	29.73
1	2019 March	Market Pri 2 Phd Mkt	33.84	30.81	37.17	40.4	39.7	39.24	38.31	37.99	32.53	29.15	36.3	40.38	39.29	39.31	39.81	33.65	33.74	35.74	36.3	37.97	33.41	33.68	30.38	30.44	36.3	35.42	39.33	35.55	30.63	31.33	27.68
1	2019 March	Market Pri 3 Phd Mkt	32.85	30.8	37.95	40.58	39.23	39.56	39.56	35.98	30.76	29.28	33.84	40.38	39.64	39.41	39.56	33.48	33.07	36.11	36.3	38.19	33.84	37.01	33.79	30.2	34.29	36.3	39.31	35.55	30.63	31.33	29.04
1	2019 March	Market Pri 4 Phd Mkt	31.58	31.63	37.16	39.1	39.57	39.26	36.73	37.31	31.33	29.17	34.18	39.64	38.81	39.28	38.17	33.61	32.89	36.3	35.56	33.52	34.55	31.99	30.12	33.84	36.3	36.68	35.55	35.67	32.62	29.18	
1	2019 March	Market Pri 5 Phd Mkt	31.5	31.68	37.16	40.38	39.87	39.82	38.13	36.09	31.42	29.18	34.18	38.75	40.21	39.54	39.09	34.1	33.02	33.84	35.55	33.52	35.55	35.55	33.52	32.67	31.21	33.29	39.08	38.86	35.55	35.58	
1	2018 March	Market Pri 6 Phd Mkt	33.44	34.56	41.63	40.59	40.83	39.84	39.14	36.3	32.99	29.01	37.18	40.67	40.2	40.38	38.67	34.87	33.42	37.75	33.84	36.3	36.3	39.29	34.85	30.73	36.38	35.31	40.38	36.3	36.3	29.29	31.12
1	2019 March	Market Pri 7 Phd Mkt	35.35	35.37	41.34	45.65	43.75	44.52	42.69	39.73	32.41	30.72	38.31	44.41	43.69	40.78	39.57	31.91	37.27	38.16	38.72	39.17	37.71	33.81	38.55	34.03	39.19	38.99	40.04	38.58	39.89	35.31	29.39
1	2019 March	Market Pri 8 Phd Mkt	35.09	32.48	37.77	45.65	46.01	46.75	44.47	39.25	31.87	34.52	39.59	46.47	44.91	41.91	39.18	33.76	36.28	39.28	39.08	39.31	39.1	36.3	37.26	31.42	39.23	39.25	40.91	37.14	30.16	37.95	31.64
1	2019 March	Market Pri 9 Phd Mkt	33.71	32	41.65	41.97	42.2	45.51	46.29	42.78	33.05	34.92	36.3	39.23	42.72	41.2	40.98	34.57	39.6	38.11	39.27	37.21	38.59	36.3	34.54	33.14	36.11	39.08	34.81	31.99	32.25	33.56	
1	2019 March	Market Pri 10 Phd Mkt	30.3	35.37	39.38	39.94	40.62	41.93	40.38	36.3	31.92	31.36	38.34	40.48	40.38	40.38	39.42	37.23	37.15	38.31	38.31	37.89	38.18	36.3	36.36	33.95	38.81	36.17	39.62	35.55	35.56	33.38	33.31
1	2019 March	Market Pri 11 Phd Mkt	32.48	34.16	37.16	34.34	37.17	37.16	36.24	34.95	31.93	29.82	35.1	36.38	36.97	34.87	37.6	32.91	34.18	31.9	36.87	37.05	36.24	35.33	32.64	31.65	36.32	36.48	37.04	34.11	32.07	31.91	30.02
1	2018 March	Market Pri Midnight 1	28.82	31.9	37.06	35.09	32.63	33.49	32.74	30.76	30.29	28.45	30.12	31.42	30.59	31.47	31.73	30.73	30.2	32.43	31.21	32.48	30.6	30.73	29.82	30.2	29.93	31.23	28.82	29.01	30.77	29.53	
1	2019 April	Market Pri 1 Alm Mkt	28.81	29.82	28.33	28.62	29.38	29.32	29.53	28.86	28.44	28.02	28.82	27.52	28.2	27.61	28.29	28.36	29.08	27.89	27.7	27.83	27.52	28.02	28.44	27.72	29.25	28.81	29.14	28.38	28.44	29.19	
1	2019 April	Market Pri 2 Alm Mkt	29.41	28.44	27.92	28.44	28.58	28.44	29.53	28.86	28.44	28.02	28.02	28.82	27.52	28.2	27.61	28.29	28.36	29.08	27.89	27.7	27.83	27.52	28.02	28.41	28.62	28.44	27.92	28.22	28.44	27.52	
1	2019 April	Market Pri 3 Alm Mkt	29.38	28.64	28.15	27.68	29.02	28.6	29.53	27.93	27.52	28.44	27.52	28.88	27.41	27.92	27.32	27.78	28.61	27.72	29.01	27.92	27.63	26.9	27.3	27.72	27.52	29.01	27.82	28.65	27.94	27.71	
1	2019 April	Market Pri 4 Alm Mkt	29.23	28.42	27.77	28.68	28.02	28.02	28.44	28.44	27.54	27.79	28.2	27.68	26.85	27.04	27.73	27.04	27.75	29.11	27.52	27.4	27.72	27.81	27.03	27.6	27.82	27.37	26.98	28.04	28.44	26.85	
1	2019 April	Market Pri 5 Alm Mkt	29.09	29.53	27.77	28.33	28.68	28.52	29.53	28.41	27.77	27.14	27.78	28.2	27.1	27.31	28.03	27.51	28.62	28.51	28.44	28.01	28.11	27.52	27.52	27.82	26.93	28.58	28.02	27.71			
1	2019 April	Market Pri 6 Alm Mkt	30.95	32.17	28.81	29.82	29.23	28.44	29.4	30.12	29.18	28.02	28.84	28.42	26.79	26.44	28.84	28.49	28.69	30.04	29.13	27.26	26.53	26.44	27.93	27.82	28.81	28.92	26.68	28.17	30.56	28.64	
1	2019 April	Market Pri 7 Alm Mkt	34.76	38.52	33.83	33.83	33.83	30.12	29.53	34.53	34.29	32.21	34.2	34.42	28.5	26.85	30.42	34.27	32.53	34.29	33.56	29.01	27.39	32.49	33.51	30.26	34.35	32.81	28.44	28.62	34.59	34.29	
1	2019 April	Market Pri 8 Alm Mkt	37.41	39.19	37.38	37.78	38.14	32.8	29.06	38.19	39.1	34.29	37.54	36.93	29.2	26.98	34.46	37.61	36.8	38.58	37.92	29.82	27.12	34.51	37.18	34.72	37.92	37.56	29.33	29.06	37.82	37.66	
1	2019 April	Market Pri 9 Alm Mkt	38.14	38.76	37.73	37.97	38.97	37.18	29.45	39.98	39.04	37.79	37.78	38.24	34.26	27.52	37.38	39.16	39.12	38.47	37.9	30.14	28.56	34.56	38.86	38.64	38.97	38.47	34.26	30.79	38.78	38.47	
1	2019 April	Market Pri 10 Alm Mkt	39.48	38.97	38.61	38.97	38.95	38.42	30.89	37.63	38.79	38.68	38.73	38.3	32.05	28.5	37.33	38.97	38.97	38.9	38.84	33.91	28.62	37.56	38.75	38.97	38.62	38.15	38.52	38.73	38.47	38.23	
1	2019 April	Market Pri 11 Alm Mkt	40.91	38.97	37.79	37.79	38.9	36.37	31.61	39.09	38.76	38.06	38.19	37.88	33.05	29.53	38.13	38.87	38.55	38.86	38.67	34.23	29.82	38.68	39.12	38.99	38.87	39.06	36.07	36.36	38.9	38.82	
1	2019 April	Market Pri Mission Mkt	42.77	38.97	38.97	38.97	38.3	36.25	28.32	39.1	39.05	38.84	39.17	38.45	31.06	29.13	39.02	39.13	38.62	39.02	38.46	32	28.96	39.22	39.53	39.34	39.12	39	35.69	32.54	40.04	38.01	
1	2019 May	Market Pri 1 Phd Mkt	42.55	38.78	38.15	38.92	38.64	34.4	29.54	38.95	38.97	38.99	38.77	37.71	30.77	30.73	39.34	38.97	38.97	38.9	38.84	31.56	28.27	37.17	38.9	32.61	38.48	40.3	40.95	39.05	39.12	34.22	
1	2019 May	Market Pri 2 Phd Mkt	43.04	39.09	38.91	38.97	38.82	35.28	29.95	38.85	38.97	38.99	38.98	38.44	29.82	28.19	38.97	39.06	38.27	38.64	38.58	30.73	29.63	39.8	40.58	40.88	39.2	39.04	34.3	33.12	39.01	38.97	
1	2019 May	Market Pri 3 Phd Mkt	38.97	37.88	37.71	37.96	38.41	31.9	29.53	37.79	38.44	38.97	38.97	38.2	29.47	31.61	39.03	38.78	38.25	38.83	38.64	30.12	31.61	38.15	40.94	39.41	39	38.99	32.89	34.88	37.79	38.3	
1	2019 May	Market Pri 4 Phd Mkt	39.03	37.56	37.8	37.79	37.79	35.37	30.12	38	38.47	38.97	38.33	37.62	30.83	31.32	39.05	38.97	38.18	38.64	37.63	31.4	31.32	38.08	40.4	40.9	39.25	38.28	34.53	32.76	37.41	38.02	
1	2019 April	Market Pri 5 Phd Mkt	38.85	36.46	37.56	38.97	37.79	36.31	29.41	37.56	38.38	38.32	38.12	36.94	33.51	31.36	38.61	38.68	37.9	37.79	37.54	32.67	30.77	39.18	39.74	40.1	38.83	38.77	34.25	32.5	36.4	37.79	
1	2019 April	Market Pri 6 Phd Mkt	38.97	35.9	37.79	37.79	38.5	36.68	28.81	37.5	38.1	38.97	37.6	36.68	33.66	32.74	38.97	38.33	37.64	37.78	37.22	32.78	31.89	39.12	39.22	39.69	39.12	38.85	34.19	34.42	37.38	37.61	
1	2019 April	Market Pri Midnight 1	39.16	37.71	38.97	38.88	38.96	35.37	31.66	38.44	37.16	37.56	37.51	37.77	35.07	30.58	38.6	38.84	37.84	36.22	37.51	35.07	30.58	38.6	39.06	39.3	38.67	38.54	37.79	34.37	32.61	36.87	37.26
1	2019 April	Market Pri 8 Phd Mkt	42.67	39.02	38.31	38.97	39.12	37.54	29.41	37.26	38.15	37.75	38.38	38.28	35.3	31.61	39.01	38.95	39.9	37.78	38.48	33.22	30.96	39.12	39.17	38.42	39	37.77	35.97	34.11	35.9	37.56	
1	2019 April	Market Pri 9 Phd Mkt	41.27	38.92	38.97	39.21	39.2	36.22	29.53	39.07	38.78	38.23	38.47	37.63	35.04	32	40.55	38.91	37.94	38.27	37.17	33.9	32.61	38.91	39.24	39.18	39.17	38.57	36.53	34.57	38.33	38.15	
1	2019 April	Market Pri 10 Phd Mkt	38.97	37.76	37.56	37.56	37.69	36.22	30.12	38.87	38.97	38.44	38.97	36.87	34.64	31.87	38.99	38.68	38.31	38.97	38.55	34.86	34.47	39.02	39.22	38.8	39.2	37.76	36.74	35.04	38.64	38.5	
1	2019 April	Market Pri 11 Phd Mkt	37.88	34.94	31.61	37.87	36.06	36.06	30.79	38.04	36.59	35.96	37.54	35.87	31.06	32.53	37.38	34.83	36.35	37.23	31.61	33.61	29.47	38.86	38.51	35.37	37.63	37.39	31.82	33.79	35.97	35.85	
1	2019 April	Market Pri Mission Mkt	32.18	28.65	29.53	30.87	31.53	31.63	29.82	32.65	29.82	29.82	30.49	29.68	29.05	28.99	31.36	29.82	30.65	30.16	29.5	29.08	30.99	30.52	31.91	31.45	30.44	31.74	30.6	31.48	29.61		
1	2019 May	Market Pri 1 Alm Mkt	29.67	29.76	29.38	29.78	28	29.9	29.46	29.88	29.2	28.56	28.72	27.37	28.56	28.79	30.86	30.43	29.57	29.97	26.92	27.93	28.05	28.73	29.76	29.72	29.97	28.07	28.53	29.18	29.51	29.46	28.6
1	2019 May	Market Pri 2 Alm Mkt	29.07	28.56	27.84	28.82	27.55	27.91	28.56	28.56	28.24	28.11	27.98	26.75	27.37	27.91	29.41	29.31	28.2	28.75	26.7	27.15	28.03	28.14	29.05	28.31	29.03	26.98	27.86	28.56	28.7	28.24	27.88
1	2019 May	Market Pri 3 Alm Mkt	28.2	28.74	27.67	28.24	27.56	27.73	28.24	28.56	27.88	27.23	27.8	26.56	27.1	27.84	27.98	28.08	27.89	28.02	26.49	26.92	27.06	27.67	27.84	27.67	27.67	27.55	27.55	27.98	28.11	27.82	26.94
1	2019 May	Market Pri 4 Alm Mkt	27.95	28	27.67	27.67	27.67	27.98	28.15	28.24	27.67	27.62	27.34	26.81	27.1	26.76	28.11	27.98	27.06	27.67	26.56	26.68	26.9	26.99	27.08	27.51	27.54	26.72	27.17	27.27	27.39

| | | |

| | | |

1	2020 November Market Pri	39.81	41.93	40.69	42.81	42.79	41.86	39.78	38.59	41.87	40.51	42.57	42.87	41.86	41.07	41.19	41.99	41.13	45.38	47.44	43.21	41.37	40.98	42.87	45.48	46.47	36.88	42.47	41.51	42.64	43.57		
1	2020 November Market Pri	39.37	40.48	40.66	42.68	40.63	40.47	38.64	38.7	41.73	39.1	41.31	42.11	41.65	37.75	40.09	41.67	40.41	43.9	45.74	43.6	41.24	41.16	43.59	43.84	44.13	36.91	42.56	41.24	41.28	42.78		
1	2020 November Market Pri	36.13	39.75	40.37	41.31	40.41	40.05	34.58	35.14	40.05	38.79	40.36	41.18	41.96	29.85	35.93	40.54	39.55	44	44.38	43.59	40.13	40.68	42.67	43.65	43.71	38.35	42.81	38.56	40.19	41.2		
1	2020 November Market Pri	32.04	37.99	38.86	40.53	38.58	37.9	30.85	32.68	38.62	38.96	40.05	39.43	38.4	29.85	32.24	38.14	39.3	42.49	43.91	43.5	37.32	38.53	41.2	43.36	42.62	35.82	41.34	37.32	36.29	40.37		
1	2020 November Market Pri	28.82	31.52	32.13	33.54	32.31	33.07	28.54	28.34	32.68	32.16	34.99	35.73	37.46	28.69	28.86	33.21	36.31	42.83	43.76	43.54	32.3	31.12	40.83	42.01	40.75	32.17	41.06	30.35	29.93	37.43		
1	2020 December Market Pri	28.13	29.16	29.39	30.36	28.34	29.39	27.09	27.62	28.75	29.39	29.81	29.85	29.97	27.12	27.75	28.61	29.84	39.9	39.79	39.64	28.82	29.39	31.85	36.97	32.12	31.62	34.65	28.3	28.75	32.28		
1	2020 December Market Pri	27	30.88	30.6	31.73	33.91	31.72	29.82	36.34	41.5	38.47	40.47	40.5	33.84	30.06	35.31	37.08	31.59	34.72	35.65	35.78	33.98	33.98	42.94	42.06	40.06	37.13	39.29	28.16	26.28	27.73	27.85	28.12
1	2020 December Market Pri	26.28	29.85	30.24	32.17	32.82	29.88	29.73	35.41	39.47	37.67	38.62	39.34	30.73	29.88	31.85	36.03	31.07	31.88	33.78	32.22	34.86	40.72	40.53	36.71	34.19	25.54	27.25	25.86	27.73	27.73	27.51	
1	2020 December Market Pri	26.18	29.88	29.88	32.12	32.22	29.36	29.42	34.14	39.29	35.89	36.29	37.33	30.26	29.56	31.02	35.62	30.11	32.12	34.08	31.28	32.31	39.32	40.41	36.06	33.57	28.01	26.84	25.44	27.2	28.16	27.33	
1	2020 December Market Pri	25.94	29.73	30.02	31.85	30.73	29.42	29.78	33.83	40.33	36.74	36.66	36.91	31.23	29.88	31.7	35.55	31.86	32.19	33.74	37.92	40.47	35.93	33.95	27.77	27.15	25.71	27.36	26.58	27.27			
1	2020 December Market Pri	26.28	31.65	31.76	31.63	31.02	29.88	31.85	33.84	41.1	40.53	38.46	38.57	33.56	34.47	35.88	38.22	32.19	33.71	32.33	34.56	40.72	42.02	38.88	35.8	27.73	27.28	26.7	27.73	28.42	27.76		
1	2020 December Market Pri	28.29	35.83	36.55	38.94	34.25	29.42	37.34	42.41	45.89	44.36	44.12	42.96	31.02	37.98	38.76	38.24	36.71	38.55	35.7	33.34	44.67	46.47	45	41.12	36.07	29.83	26.92	27.91	26.22	29.33	28.7	
1	2020 December Market Pri	34.05	42.25	42.46	43.74	36.24	29.43	43.72	44.4	47.19	46.68	44.71	43.19	31.02	43.62	44.48	46.26	43.61	42.98	38.81	34.7	45.66	47.05	45.52	44.93	37.62	28.43	26.48	27.9	32.15	33.34	32.8	
1	2020 December Market Pri	38.27	42.81	43.8	43.81	41.03	41.75	34	45.42	44.68	45.4	46.23	44.11	31.92	42.7	43.98	45.44	45.42	44.65	40.75	34.69	45.54	44.05	41.82	43.58	30.71	28.88	27.3	32.07	34.62	39.03	42.25	
1	2020 December Market Pri	43.54	41.81	44.54	45.41	44.89	36.08	46.46	45.68	46.97	46.75	46.13	44.28	37.67	45.34	45.2	47.12	45.52	44.09	43.52	41.5	46.14	46.13	45.4	41	32.23	31.02	27.84	36.24	37.03	41.91	42.78	
1	2020 December Market Pri	44.25	45.23	46.65	46.52	47.83	46.04	49.27	49.36	51.55	51.29	48.88	47.87	45.49	48.13	48.3	49.1	49.17	46.66	47.63	47.15	51.55	49.38	49.03	46.23	43.05	34.49	30.62	41.46	42.05	43.61	43.61	
1	2020 December Market Pri	45.44	46.65	46.66	46.51	47.91	46.97	51.44	51.38	53.4	53.01	49.44	48.91	47.43	50.04	51.56	54.55	49.47	47.4	48.91	47.54	54.09	52.17	51.24	46.32	44.18	35.62	30.48	42.25	42.9	42.31	43.63	
1	2020 December Market Pri	45.32	46.3	46.1	46.73	47.48	46.46	49.35	49.47	52.47	52.43	50.29	48.49	47.38	49.95	50.7	52.26	47.42	46.32	48.27	47.65	52.97	51.56	50.74	45.7	43.06	33.85	29.88	42.44	42.97	43		
1	2020 December Market Pri	44	44.94	45.13	45.52	46.65	45.13	47.01	49.55	50.7	48.13	47.14	47.74	46.48	46.89	49.9	49.67	46.17	46.8	47.62	47.58	50.7	50.67	49.6	44.14	41.11	31.85	29.72	36.81	42.25	41.34	42.63	
1	2020 December Market Pri	43.65	44.5	44.93	43.8	43.79	43.16	46.34	47.16	47.46	46.32	46.78	45.65	43.94	46.03	46.1	45.76	45.29	44.83	45.74	47.38	48.82	47.35	46.95	44.93	36.45	31.66	29.76	35.19	39.46	38.89	36.87	
1	2020 December Market Pri	38.42	41.9	43.98	44.76	38.9	35.5	47.36	43.39	48.87	47.74	48.01	43.38	38.93	44.67	48.69	46.28	44.77	46.81	44.25	44.25	50.61	48.21	47.3	48.81	48.27	43.8	33.53	31.62	28.42	32.12	34.23	32.19	35.07	
1	2020 December Market Pri	33.76	34.05	36.38	36.67	34.09	31.54	41.18	41.41	44.8	44.26	44.99	38.98	31.85	38.1	40.26	38.47	39.42	41.35	40.52	36.92	44.91	44.16	39.34	29.64	29.24	27.22	29.88	29.98	29.88	30.49		
1	2021 January Market Pri	31.12	26.3	26.56	27.79	32.08	33.96	30.94	33.89	30.66	31.46	36.44	32.08	29.41	36.71	42.45	39.02	45.3	47.47	46.79	42.96	39	33.04	31.58	43.61	45.67	37.1	38.96	33.85	38.47	30.94	33.01	
1	2021 January Market Pri	29.83	26.24	25.75	25.1	29.83	32.08	32.7	34.74	28.15	29.83	29.83	33.77	31	27.97	33.77	39.53	35.61	45	47.24	45.78	35.11	38.42	31.86	37.03	38.55	35.64	37.32	35.7	38.16	29.83	30.41	
1	2021 January Market Pri	29.24	25.42	25.32	26.42	29.46	30.94	30.81	33.97	29.83	29.83	29.83	29.2	33.14	29.85	27.58	33.66	38.42	35.17	45.24	46.99	45.9	38.84	37.09	29.41	36.76	38.42	36.86	35.59	37.31	36.5	28.4	30.23
1	2021 January Market Pri	27.97	25.13	25.39	26.54	29.28	30	31.07	34.43	29.63	29.29	29.45	32.07	29.83	27.79	32.23	38.83	35.6	45.17	46.22	46.65	44.84	38.38	37.09	30.23	36.41	39.15	35.83	35.84	36.87	40.58	36.67	30.46
1	2021 January Market Pri	29.76	25.36	25.42	27.29	29.83	32	33.39	35.76	29.63	27.97	30.94	33.76	33.32	28.29	36.33	39.85	37.82	45.39	48.73	45.78	31.2	41.2	29.51	40.57	45.78	38.25	38.3	35.65	41.36	34.91	30.99	
1	2021 January Market Pri	34.93	25.42	25.88	29.64	33.87	29.83	38.04	41.52	28.14	30.19	34.8	39.76	34.94	30.86	42.34	40.71	40.64	46.58	51.56	46.34	38.42	37.97	29.83	46.04	46.8	45.78	43.41	42.28	46.56	29.83	32.79	
1	2021 January Market Pri	31.81	25.8	27.07	27.15	30.18	29.48	38.9	39.5	27.36	30.54	38.8	43.25	36.54	38.18	39	32.7	40.96	46.36	42.37	45.32	54.16	48.87	45.27	46.55	35.65	45.77	51.04	47.45	43.09	47.28	49.31	34.51	36.92	
1	2021 January Market Pri	42.73	27.37	26.3	32.7	39.47	42.91	42.96	46.96	47.62	45.05	45.64	45.77	41.29	46.85	44.07	42.82	47.36	46.61	51.26	52.52	57.55	51.14	50.03	48.04	45.65	46.53	53.18	49.85	49.16	51.5	52.39	45.15	38.22	
1	2021 January Market Pri	38.42	28.01	29.41	36.05	40.41	40.96	41.53	44.49	42.34	29.42	40	40.96	39.47	38.83	43.62	46.09	43.03	48.99	53.45	53.16	47.39	48.99	45.79	46.81	51.87	49.63	45.43	49.82	50.9	46.1	41.5	
1	2021 January Market Pri	43.65	29.24	30.68	38.83	43.96	41.15	40.75	43.57	34.54	40.69	39.88	40.96	39.47	39.37	44.58	46.52	45.63	49.55	53.31	51.33	48.7	48.9	47	48.05	51.53	49.1	45.37	50.27	51.31	47.11	34.77	
1	2021 January Market Pri	45.65	30.17	31.86	38.62	39.96	41.33	42.34	42.62	36.61	41.18	39.29	41.62	39.78	40.96	45.11	46.51	46	48.98	51.84	50.93	47.39	48.48	48.46	48.32	50.09	48.4	45.43	49.53	50.23	47.13	37.97	
1	2021 January Market Pri	43.54	32.23	36.84	40.96	43.62	42.74	43.08	42.37	32.08	39.82	44.29	39.55	40.41	44.52	46.6	46.1	48.98	51.44	52.52	47.4	47.52	48.3	48.09	49.32	47.97	49.64	49.03	48.84	46.39	46.11		
1	2021 February Market Pri	41.26	29.83	32.69	36.42	40.96	42.27	41.31	37.09	41.4	38.59	43.57	39.47	40.42	43.62	44.84	45.78	48.56	50.87	49.79	47.22	47.42	47.2	46.8	48.8	46.48	45.35	48.58	48.68	46.28	35.41		
1	2021 January Market Pri	38.64	29.41	32.29	37.74	40.96	41.85	42.23	41	40.71	29.83	39.38	40.96	38.95	40.15	40.61	42.99	45.63	47.39	49.2	45.33	45.29	44.4	45.39	47.22	43.62	44.39	45.36	43.25	38.42	42.63		
1	2021 January Market Pri	38.91	30.15	29.41	39.65	40.96	45.01	43.49	42.51	34.32	31.58	40.43	41.78	39.47	40.43	42.55	35.41	46.34	48.73	49.77	48.84	46.92	47.39	47.04	46.56	47.39	44.29	45.3	48.08	45.28	39.16	38.42	
1	2021 January Market Pri	46.46	34.94	34.51	42.2	45.5	47.45	46.1	44.8	42.34	42	44.35	45.18	42.18	41.05	45.37	46.39	47.35	49.7	53.4	49.39	48.38	49.27	48.3	48.84	45.41	47.45	48.3	46.6	46.35	42.37		
1	2021 January Market Pri	46.52	28.72	34.51	43.84	45.24	46.76	47.62	45.05	45.64	45.77	45.99	46.85	44.07	42.82	47.36	46.61	51.26	52.52	57.55	51.14	50.03	48.04	45.65	46.53	53.17	49.85	49.16	51.5	52.39	45.15	38.22	
1	2021 January Market Pri	46.21	37.47	32.08	39.59	44.52	47.99	46.47	44.37	42.37	42.37	45.25	45.31	41.96	44.04	46.62	46.45	51.38	52.85	56.65	50.86	49.56	48.84	50.65	53.42	50.04	48.13	49.27	52.14	48.64	45.65	45.79	
1	2021 January Market Pri	44.86	33.59	32	40.96	43.47	45.95	45.08	42.12	40.86	39.72	43.8	45.03	40.27	41.08	45.24	46.6	50.31	51.61	54.17	49.36	49.1	48.83	48.79	51.38	49.67	47.38	48.65	50.95	48.84	41.88	44.6	
1	2021 January Market Pri	38.42	31.86	29.88	39.47	40.96	42.27	42.57	40.79	42.68	42.08	40.12	43.44	40.62	41.13	45.63	47.79	50.27	51.98	47.78	47.39	48.84	48.29	51.15	48.7	46.62	47.38	49.83	46.72	36.71	42.17		
1	2021 January Market Pri	34.51	27.78	33.48	42.48	45.8	42.6	46.39	41.37	30.06	39.22	40.1	45.33	38.55	42.08	45.63	46.9	42.8	46.61	51.26	53.53	48.28	48.83	48.79	51.38	49.67	47.38	48.65	50.95	48.84	41.88	44.6	
1	2021 February Market Pri	34.8	25.39	28.8	35.14	38.15	39.56	42.15	32	34.03	34.15	39.19	38.42	32.71	39.46	45.63	41.91	45.63	49.75	46.8	43.01	37.68	45.65	45.7	45.65	42.37	43.34	42.21	42.12	47.08	38.42	36.96	38.63
1	2021 February Market Pri	37.16	38.03	36.85	35.55	38.17	37.49	30.95	29.79	31.97	33.45	41.39	38.51	30.61	29.79	30.32	29.42	33.85	39.35	31.82	30.9	27.99	31.82	31.82	31.98	29.79	33.98	30.9					
1	2021 February Market Pri	37.27	37.79	34.48	38.83	40.87	43.16	42.44	43.31	37.09	41.4	38.59	43.57	39.47	40.42	43.62	44.84	45.78	48.56	50.87	49.79	47.22	47.42	47.2	46.8	48.8	46.48	45.35	48.58	48.68	46.28	35.41	
1	2021 February Market Pri	34.16	34.34	36.55	34.29	35.69	34.51	27.75	29.79	28.35	30.44	35.47	38.7	34.38	28.35	27.74	27.95	29.22	32.16	36.3	36.78	29.37	29.79	28.65	32.04	31.95	32.88	32.51	29.56				
1	2021 February Market Pri	34.64	29.41	32.29	37.74	39.83	37.87	35.02	31.88	31.15	29.04	33.9	35.8	39.47	34.84	29.14	29.79	28.15	30.05	29.37	37.08	36.85	29.6	28.23	28.76	34.04	32.21	35.71	32.93	29.79			
1	2021 February Market Pri	36.85	33.82	43.48	32.88	41.93	36.71	36.01	35.03	35.67	32.13	29.54	40.72	41.21	39.95	29.79	29.95	29.81	29.37	38.86	35.52	32.03	29.79	32.15	31.19	39.18	31.82	32.93	34.71	31.54			
1	2021 February Market Pri	43.57	40.84	45.57	40.01	39.99	41.16	34.01	35.07	28.69	36.18	39.26	45.21	41.46	31.82	38.21	31.35	35.06	39.93	42.8	32.93	38.54	37.68	38.33	42.98	35.82	28.76	28.76	31.98				
1	2021 February Market Pri	46.14	43.82	46.53	44.04	44.73	42.53	34.38	40.06	36.53	39.84	43.23	46.62	39.54	28.11	39.88	36.21	39.16	43.19	44.22	36.85	38.67	37.05	37.67	42.87	43.33	41.73	32.93	32.89				
1	2021 February Market Pri	45.8	43.41	45.74	44.09	43.98	41.53	38.93	40.8	37.68	39.84	42.38	45.67	33.23	33.01	40.26	36.8	39.84	43.12	44.92	36.85	37.09	38.31	38.09	42.98	43.25	42.4	33.35	36.85				
1	2021 February Market Pri	45.76	43.01	44.1	44.11	43.25	37.8	38.73	41.73	36.18	39.84	43.76	45.32	31.82	39.7	42.19	33.71	39.84	43.29	44.68	38.05	37.05	40.98	37.44	39.84	43.15	43.38	36.43	38.08				
1	2021 February Market Pri	45.2	43.16	43.73	43.17	42.8	31.95	38.71	41.91	39.99	39.84	44.31	44.42	39.12	37.99	42.73	25.07	39.84	43.29	44.09	41.21	30.64	40.95	39.84	39.84	43.39	43.3	36.85	38.13				
1	2021 February Market Pri	44.61	39.97	43.62	43.19	39.88	41.3	34.61	41.21	38.26	39.84	43.36	43.38	33.26	28.89	42.71	37.05	39.84	43.13	43.14	36.85	36.85	39.84	38.62	41.16	43.51	39.96	33.7	36.85				
1	2021 February Market Pri	44.09	40.11	43.84	43.06	38.5	29.37	37.7	39.84	37.78	39.84	43.2	42.31	30.02	28.67	40.72	37.05	39.84	43.06	42.86	39.09	35.64	39.84	38.38	39.84	43.62	43.86	30.18	32.83				
1	2021 February Market Pri	43.19	39.85	42.33	42.53	36.82	28.67	29.63	34.98	36.3	39.84	42.9	41.71	35.33	28.11	40.08	31.35	39.84	42.24	41.44	30.05	37.09	40.45	35.06	39.84	43.44	39.94	36.52	27.96				
1	2021 February Market Pri	41.64	36.73	41.31	40.04	35.06	32.64	29.82	38.51	37.02	39.84	43.01	38.38	33.88	32.11	40.19	30.21	38.56	40.22	39.84	40.28	32.93	38.54	37.68	38.33	42.98	35.82	28.76	31.98				
1	2021 February Market Pri	42.58	38.3	40.46	40.03	35.54	31.16	32.03	37.05	33.73	39.84	42.82	38.32	32.15	32.02	39.89	29.97	37.05	40.45	39.85	39.07	33.79	38.31	37.05	40.5	42.76	35.06	28.67	32.38				
1	2021 February Market Pri	40.1	40.04	42	40.01	35.05	31.82	29.81	34.92	34.99	39.84	44.09	38.49	33.01	31.98	38.8	32.03	39.84	39.84	39.49	39.38	33.03	40.06	35.07	39.84	42.76	36.09	28.65	32.22				
1	2021 February Market Pri	43.01	40.71	44.08	43.14	36.03	28.76	35.34	39.84	38.14	43.45	43.3	38.97	29.37	36.85	39.88	30.2	42	43.16	40.02	32.83	29.79	39.96	37.68	41.28	43.13	38.43	28.71	37.26				
1	2021 February Market Pri	45.39	43.25	45.86	45.21	39.64	31.98	29.79	42.68	40.95	41.25	46.19	42.54	41.04	34.42	41.18	31.52	44.68	45.73	42.2	41.21	34.91	41.44	40	44.25	45.08	40	29.79	30.21				
1	2021 February Market Pri	45.5	44.04	45.57	44.72	38.64	41.26	29.75	42.13	39.84	44.86	46.03	39.03	34.9	36.43	40.98	33.46	44.22	45.76	42.15	40.64	34.95	41.61	39.84	44.58	45.23	39.84	41.21	34.88				
1	2021 February Market Pri	44.1	43.26	44.35	44.1	39.81	42.06	37.65	40.08	38.84	42.2	45.74	41.94	29.79	32.93	39.84	33.24	43.01	45.2	42.09	36.85	32.93	42.65	40.17	43.26	45.21	38.95	35.72	33.74				
1	2021 February Market Pri	43.08	42.9	43.05	42.81	36.79	39.42	29.75	38.31	35.95	40.73	43.78	43.84	30.95	40.36	38.06	36.83	41.05	43.47	41.84	35.44	30.9	38.3	39.63	41.73	43.22	38.47	32.93	31.82				
1	2021 February Market Pri	41.23	41.21	37.93	42.46	35.79	36.3	29.25	41.52	41.73	43.7	44.53	37.38	36.85	35.48	40.7	38.01	40.84	43.41	36.85	30.11	35.55	42.05	42.76	37.24	39.82	33.78	30.05	38.19				
1	2021 February Market Pri	38.2	37.38	34.31	42.19	36.85	32.32	31.92	35.7	34.87	40.82	43.44	39.1	31.13	31.98	32.93	32.07	38.94	43.47	34.78	32.25	31.82	32.45	29.75	39.43	31.96	31.46	32.22	28.76				
1	2021 March	Market Pri	28.74	29.76	36.67	38.32	32.02	29.76	31.81	28.57	29.34	36.04	38.07	31.72	31.23	32.88	32.12	29.76	31.99	34.48	33.82	32.03	32.98	31.07	30.68	32.12	34.48	29.75	29.33	32.06	31.28	26.23	28.65
1	2021 March	Market Pri	28.09	28.74	35.18	34.13	32.12	29.98	29.95	28.21	28.74	34.12	35.61	31.64	31.72	31.05	30.46	30.19	30.81	31.96	30.88	32.11	30.88	29.65	29.76	29.82	31.46	29.74	29.6	30.88	28.57	27.94	28.01
1	2021 March	Market Pri	28.08	28.51	35.97	35.28	33.52	28.74	30.13	27.94	29.12	34.57	34.28	32.12	31.76	30.18	30.88	30.11	30.88	31.12	32.05	30.88	31.72	29.62	29.34	29.76	31.42	29.76	26.43	30.54	29.3	27.91	28.32
1	2021 March	Market Pri	28.32	29.83	36.54	34.62	34.39	28.32	29.76	28.23	29.34	35.26	34.95	33.03	29.94	29.79	32.12	31.58	31.23	31.69	32.44	30.88	30.8	30.7	29.98	29.76	30.88	29.76	28.65	29.34	29.34	27.96	28.64
1	2021 March	Market Pri	29.78	31.58	37.82	37.45	29.85	29.78	29.14	29.95	31.7	38.17	33.64	30.16	30.14	33.8	33.06	32.54	33.99	34.48	34.95	31.07	32.12	31.96	32.18	31.28	32.12	29.76	28.32	29.76	31.8	28.84	27.72
1	2021 March	Market Pri	35.46	36.12	41.91	40.99	39.89	32.32	33.2	33.3	43.8	38.36	39.07	38.97	33	31.32	39.92	37.16	37.48	39.24	39.72	32.73	41.1	37.31	37.56	33.86	38.65	29.76	35.42	30.7	30.88	31.82	
1	2021 March	Market Pri	33.4	37.34	41.78	44.39	42.12	33.42	34.62	36.52	38.51	43.62	43.85	38.48	36.66	33.23	38.12	36.74	38.63	36.26	36.49	36.04	35.18	36.77	36.14	36.02	37.34	34.68	29.76	30.7	29.69	30.67	29.66
1	2021 March	Market Pri	39.35	39.21	44.61	44.11	44.26	34.56	36.55	36.89	39.85	44.53	44.16	39.76	38.04	35.57	42.74	41.29	38.92	36.76	38.45	38.13	37.15	39.43	38.66	38.45	38.56	36.3	33.4	34.85	36.14	34.18	33.83
1	2021 March	Market Pri	39.21	38.07	44.1	43.4	43.33	38.65	38.17	37.31	38.38	43.47	42.12	38.52	38.12	37.16	42.12	38.17	39.37	37.18	38.45	39.58	38.17	39.62	41.73	43.22	38.47	32.93	31.82				
1	2021 March	Market Pri	39.7	39.09	43.13	40.76	41.98	39.89	38.17	36.32	38.45	43.52	40.92	39.41	39.46	38.45	37.64	38.45	43.41	36.85	30.11	35.55	42.05	42.76	37.24	39.82	33.78	30.05	38.19				
1	2021 March	Market Pri	41.44	38.45	42.06	44.29	38.66	37.81	38.89	37.81	37.43	39.45	42.13	40.46	39.85	40.88	39.72	37.97	37.11	39.78	36.32	37.54	40	39.68	39.58	37.54	42.09	37.51	36.11	38.96	39.24	38.96	37.97	38.74
1	2021 March	Market Pri	29.84	29.46	36.37	38.32	32.02	29.76	31.81	28.57	29.34	36.04	38.07	31.72	31.23	32.88	32.12	29.76	31.99	34.48	33.82	32.03	32.98	31.07	30.68	32.12	34.48	29.75	29.33	32.06	31.28	26.23	28.65
1	2021 March	Market Pri	29.67	29.42	40.43	36.86	37.03	37.11	32.01	32.01	29.42	38.45	38.45	39.56	37.43	37.43	37.57	38.45	36.75	42.1	36.73	39.07	37.45	37.54	40.64	36.75	30.81	39.35	36.78	38.35	36.22	38.54	
1	2021 March	Market

| | | |

| | | |

1	2022 September Market Prs 4 PM Mkt	53.06	53.06	39.51	37.1	38.6	51.63	52.86	52.59	53.89	43.78	43.28	61.31	65.34	55.86	55.83	51.04	38.59	38.76	55.33	55.49	59.41	56.67	54.04	39.58	37.67	45.76	43.43	43.85	41.3	38.63		
1	2022 September Market Prs 5 PM Mkt	53.9	53.87	38.68	37.09	40.38	52.76	54.76	52.56	55.12	43.9	43.53	63.87	68.93	56.42	55.69	50.58	38.6	38.85	56.59	56.38	60.78	59.65	54.9	39.25	38.75	47.08	44.08	44.6	42.19	38.59		
1	2022 September Market Prs 6 PM Mkt	52.76	52.55	40.06	38.35	40.27	52.55	54.26	52.27	53.39	43.57	43.69	63.35	66.13	55.83	54.33	49.3	36.6	36.75	55.75	55.59	59.93	58.68	51.34	41.18	35.16	45.76	44.78	43.43	38.64	38.79		
1	2022 September Market Prs 7 PM Mkt	50.99	49.86	38.61	37.33	38.1	50.4	51.97	50.36	51.02	43.47	43.36	58.74	60.77	53.03	52.58	46.97	38.82	39.64	53.65	52.16	56.03	54.55	49.85	40.23	35.32	45.68	43.64	43.58	38.66	38.73		
1	2022 September Market Prs 8 PM Mkt	48.34	46.36	38.63	35.16	38.6	48.26	49.77	48.51	47.77	43.01	43.21	56.93	59	52.31	52.92	45.17	38.58	39.44	52.58	52.18	53.82	54.66	48.33	41.17	36.75	46.77	42.7	43.43	38.61	38.58		
1	2022 September Market Prs 9 PM Mkt	48.92	43.43	38.31	34.73	38.58	47.93	49.3	48.25	46.87	42.85	43.59	56.34	56.38	52.51	52.36	44.12	38.52	38.72	51.82	50.79	53.65	53	47.27	41.18	40.24	46	43.64	43.93	41.72	38.63		
1	2022 September Market Prs 10 PM Mkt	44.79	41.91	35.58	34.93	38.46	43.98	44.62	43.86	43.79	40.13	40.36	50.6	50.95	48.6	48.29	42.85	37.58	38.83	46.87	46.59	46.16	48.77	43.85	38.73	38.43	43.28	42.14	42.06	38.49	36.86		
1	2022 September Market Prs 11 PM Mkt	38.4	35.85	33.48	32.12	35.16	38.29	38.6	38.72	40.06	38.6	38.59	42.18	43.58	41.38	38.53	35.85	35.57	36.4	41.48	38.62	38.61	41.53	37.88	36.02	36.04	35.88	36.66	37.15	30.53	30.73		
1	2022 September Market Prs Midnight h	32.62	30.73	29.68	28.59	29.99	34.95	37.04	35.5	35.48	35.05	35.11	38.42	38.52	38.18	33.57	30.59	30.73	32.32	36.86	35.16	37.21	37.1	33.03	31.49	32.42	29.57	30.13	31.05	26.96	25.15		
1	2022 October Market Prs 1 AM Mkt	29.46	28.35	25.56	24.96	27.75	34.33	30.22	28.68	26.38	27.89	28.11	28.13	29.7	28.23	28.03	26.16	26.61	27.51	28.59	28.39	28.2	27.89	26.35	27.51	27.76	28.89	28.44	28.06	28.89	26.38	26.01	
1	2022 October Market Prs 2 AM Mkt	28.24	27.73	23.67	24.62	24.35	32.85	27.79	26.21	26.07	26.82	26.67	27.73	27.74	26.76	27.14	25.82	26.38	26.61	26.61	26.96	26.61	26.61	26.05	27.65	27.37	28.2	27.89	26.96	27.64	26.38	26.02	
1	2022 October Market Prs 3 AM Mkt	27.51	26.52	21.95	21.6	21.51	28.28	26.96	26.55	25.64	27.32	26.41	26.21	27.24	26.39	26.61	24.97	26.39	25.82	26.2	26.61	26.13	26.69	25.64	27.19	26.5	26.86	27.39	26.61	27.51	26.2	26.03	
1	2022 October Market Prs 4 AM Mkt	26.94	26.1	20.25	20.19	20.78	28.33	26.4	26.59	25.49	26.84	26.2	26.31	26.61	26.2	27.07	24.18	25.82	25.29	26.18	26.41	26.21	26.2	25.5	26.55	26.21	26.6	26.94	26.65	27.51	26.04	26.2	
1	2022 October Market Prs 5 AM Mkt	26.53	25.63	20.44	29.68	29.56	28.01	26.45	26.38	25.24	26.9	26.21	26.55	26.55	26.42	26.13	23.85	26.21	25.82	26.38	26.25	26.2	25.88	25.07	26.96	27.07	28.24	27.54	26.61	26.86	26.21	26.61	
1	2022 October Market Prs 6 AM Mkt	26.6	26.02	35.84	35.68	35.42	32.49	27.89	26.4	25.55	27.89	27.89	27.89	27	26.23	24.31	27.26	27.27	27.68	27.48	26.75	26.2	25.5	30.36	30.17	31.9	32.51	28.78	27.89	26.52	28.23		
1	2022 October Market Prs 7 AM Mkt	27.74	26.4	41.64	42.03	41.17	41.37	38.6	26.61	26.03	29.8	28.34	40.53	40.68	37.68	26.53	25.52	40.43	38.79	38.59	39.85	38.01	26.55	26.2	40.7	40.87	40.98	40.9	40.77	31.67	27.07	40.84	
1	2022 October Market Prs 8 AM Mkt	29.12	27.89	44.22	43.64	42.93	44.28	42.87	28.67	26.61	41.42	41.01	43.67	42.84	40.7	28.59	26.2	43.49	40.91	40.88	40.86	40.58	28.1	27.62	43.44	41.81	44.22	43.98	42.84	35.23	28.96	43.98	
1	2022 October Market Prs 9 AM Mkt	35.11	31.79	44.79	44.76	44.05	44.21	43.71	35.89	28.5	42.84	40.7	43.23	41.02	40.82	30.32	26.96	41.93	40.88	42.84	41.04	40.83	31.14	28.13	44.6	44.22	44.32	44.24	41.79	37.55	32.55	43.67	
1	2022 October Market Prs 10 AM Mkt	37.15	37.97	44.48	44.97	43.67	44.49	44.24	36.42	31.92	43.67	41.32	43.79	43.78	43.49	35.58	30.52	41.3	42.97	42.82	43.18	41.7	35.98	32.43	44.57	44.36	43.67	44.42	43.91	38.72	31.85	43.05	
1	2022 October Market Prs 11 AM Mkt	38.33	37.81	45.16	44.85	45.03	45.11	43.93	39.39	33.27	43.51	43.45	43.73	43.92	43.97	37.22	32.88	42.6	41.61	42.7	43.67	41.48	38.48	33.36	44.23	43.93	44.22	44.23	43.99	38.23	30.25	43.67	
1	2022 October Market Prs Noon Mkt	39.53	40.54	46.13	45.51	45.05	44.96	43.93	39.5	35.07	43.78	43.67	43.42	44.81	43.49	38.5	35.26	42.84	43.47	42.24	43.85	43.74	38.63	33.95	44.27	43.67	43.67	42.2	43.33	43.54	37.85	30.29	42.78		
1	2022 October Market Prs 1 PM Mkt	40.7	40.02	46.98	46.52	46.02	46.12	43.79	37.8	30.29	44.38	43.79	42.84	43.79	43.3	35.88	35.58	42.88	43.13	42.87	42.45	40.89	36.86	35.48	44.85	44.42	40.83	43.18	42.7	35.79	29.46	41.62	
1	2022 October Market Prs 2 PM Mkt	39.93	40.47	48.85	48.56	47.81	44.35	44.39	37.79	35	43.75	43.68	43.97	43.56	43.62	38.38	36.36	43.67	42.97	42.19	41.93	42.57	36.1	34.34	44.77	44.39	44.18	42.88	43.7	31.79	29.33	41.64	
1	2022 October Market Prs 3 PM Mkt	40.56	40.9	50.05	49.58	49.54	46.58	43.72	36.18	33.57	43.67	42.84	44.39	44.1	42.84	39.28	35.12	42.28	41.48	44.01	42.88	40.86	35.02	32.58	44.39	43.67	41.03	42.84	40.89	30.14	28.33	43.1	
1	2022 October Market Prs 4 PM Mkt	40.23	40.81	51.52	49.81	50.05	46.88	43.46	36.05	33.13	41.97	43.9	43.57	43.62	43.22	38.64	36.51	41.93	41.8	43.72	42.05	40.92	34.96	32.9	44.18	43.93	41.02	43.75	40.6	28.89	28.13	41.54	
1	2022 October Market Prs 5 PM Mkt	40.58	42.94	52.28	50.83	50.57	47.58	43.58	35.79	32.82	43.47	43.61	43.8	44.07	44.2	37.5	37.12	42.42	42.84	42.99	42.83	40.81	34.6	32.44	45.12	44.18	40.91	42.99	40.69	29.18	28.26	42.67	
1	2022 October Market Prs 6 PM Mkt	40.83	43.68	51.25	50.79	50.62	46.87	42.96	37.72	35.35	43.74	43.8	43.58	44.28	42.84	37.05	35.8	42.47	42.97	44.21	43.67	40.8	36.1	35.81	44.72	44.65	42.99	43.37	40.89	30.29	36.54	43.3	
1	2022 October Market Prs 7 PM Mkt	40.7	42.98	49.66	50	49	46.05	42.99	38.12	38.24	43.74	44.22	44.2	44.48	44.03	36.72	37.46	42.48	42.95	43.77	44.1	42.89	37.9	38.72	44.99	44.7	43.73	44.42	41.74	36.39	38.77	42.89	
1	2022 October Market Prs 8 PM Mkt	40.9	44.29	50.53	50.32	50.5	48.4	43.67	40.49	40.55	44.66	45.32	43.67	45.27	43.65	38.56	40.43	43.38	43.58	44.21	43.97	42.84	38.41	40.75	44.63	45.05	44.87	43.81	42.96	37.09	38.4	43.29	
1	2022 October Market Prs 9 PM Mkt	40.83	45.02	48.53	48.24	48.27	45.13	43.67	39.06	40.34	43.12	44.39	43.75	43.86	43.67	35.87	40.92	43.54	43.58	43.79	43.67	40.88	37.38	40.86	44.9	44.42	44.65	44.32	40.7	36.37	37.06	43.44	
1	2022 October Market Prs 10 PM Mkt	38.23	43.17	45.36	45.2	44.96	44.83	40.62	36.28	38.98	43.37	42.88	43.39	43.67	43.73	37.77	38.89	41.92	43.3	43.67	42.84	40.9	35.81	37.99	44.39	44.84	44.32	43.6	42.53	33.02	35.52	40.9	
1	2022 November Market Prs 11 PM Mkt	37.93	42.55	43.21	42.84	43.78	40.82	37.35	33.29	36.59	38.06	38.22	39.24	38.58	37.17	33.15	36.35	36.63	37.07	39.96	37.28	37.45	32.55	36.02	37.77	37.83	37.68	37.68	36.16	28.89	30.22	31.27	
1	2022 November Market Prs Midnight h	33.88	39.9	40.57	40.42	39.03	37.29	33.02	28.74	32.26	32	34.7	35.8	33.87	31.98	27.8	30.29	30.67	32.53	34.4	32.8	30.09	27.89	32.51	30.29	32.02	32.01	30.89	30.2	27.66	27.51	27.71	
1	2022 November Market Prs 1 AM Mkt	26.44	26.65	27.8	26.25	26.65	24.47	26.11	26.65	26.48	27.56	28.21	27.72	25.28	26.25	26.99	29.43	25.18	28.48	25.11	26.55	27.93	29.73	32.65	27.08	28.5	31.58	26.1	26.67	29.42	32.35		
1	2022 November Market Prs 2 AM Mkt	25.97	25.85	27.25	25.66	25.44	23.97	25.78	26.06	25.78	26.57	27.05	26.51	24.35	25.76	26.25	26.24	24.5	25.56	22.1	26.25	27.56	29.28	30.28	26.25	27.77	28.71	25.65	26.24	28.53	31.76		
1	2022 November Market Prs 3 AM Mkt	25.86	25.57	26.25	25.7	24.82	23.83	24.83	25.86	24.96	26	26.65	26.06	24.18	25.01	26.45	25.85	23.78	25.85	20.38	26.2	26.99	28.72	28.34	25.85	27.83	28.2	25.5	25.66	27.75	31.13		
1	2022 November Market Prs 4 AM Mkt	25.76	25.85	26.63	24.99	24.42	23.83	24.83	25.85	25.3	26.05	26.67	26.06	24.12	25.01	25.92	26.25	23.92	24.36	21.14	25.97	27	27.73	31.09	25.85	27.93	27.83	25.72	26.99	32.32			
1	2022 November Market Prs 5 AM Mkt	26.16	26.61	26.78	25.55	24.31	23.65	25.38	25.85	25.79	26.21	27.08	26.06	23.95	25.51	25.87	27.08	24.52	24.76	21.95	26.05	27.61	30.11	33.27	25.79	28.85	27.82	25.01	26.25	27.56	32.62		
1	2022 November Market Prs 6 AM Mkt	27.56	28.63	30.15	27.78	25.85	23.75	26.99	26.99	26.99	27.93	30.84	26.65	24.2	26.99	28.06	30.78	28.06	28.74	23.53	26.24	31.6	33.42	38.62	26.25	32.36	30.37	25.33	28.93	31.19	37.37		
1	2022 November Market Prs 7 AM Mkt	28.21	31.5	41.21	39.06	25.41	23.77	38.85	39.09	39.14	41.25	42.45	27.79	24.56	38.06	38.67	42.05	46.71	47.08	33.78	27.3	43.39	41.04	46.37	26.75	40.52	30.55	26.11	39.05	41.23	45.2		
1	2022 November Market Prs 8 AM Mkt	42.93	43.9	43.86	43.24	26.55	24.44	42.7	41.61	44.36	43.82	46.19	28.88	25.61	43.2	42.87	44.17	47.39	48.02	38.15	28.11	46.4	46.37	47.32	28.63	44.69	33.09	26.65	43.64	42.69	47		
1	2022 November Market Prs 9 AM Mkt	43.96	44.34	43.14	41.85	29.01	26.01	44.88	43.58	44.16	44.07	45.77	32.35	26.65	43.73	43.95	44.99	47.21	47.96	40.79	31.47	46.68	46.6	47.42	33.32	45.51	38.7	27.78	44.66	44.24	47.03		
1	2022 November Market Prs 10 AM Mkt	42.74	44.61	44.66	44.41	32.62	27.75	44.36	41.84	44.46	45.22	45.21	34.64	28.15	44.35	43.58	45.14	47.38	47.54	40.83	32.82	46.63	46.21	47.68	37.46	45.17	39.17	29.71	44.34	44.38	46.86		
1	2022 November Market Prs 11 AM Mkt	44.18	44.28	44.5	44.88	36.3	29.15	44.34	43.75	45.34	44.34	45.65	36.56	30.04	44.66	43.95	46.16	46.85	47.77	40.48	33.1	46.88	46.34	47.37	39.15	45.47	41.03	30.99	44.94	44.5	47.2		
1	2022 November Market Prs Noon Mkt	43.11	44.42	43.99	44.5	36.58	29.21	44.78	42.86	45.2	44.5	44.96	35.42	30.29	44.66	43.6	46.44	46.4	47.7	39.29	33	46.22	45.71	46.83	40.3	44.97	38.46	33.78	45.48	44.36	47		
1	2022 November Market Prs 1 PM Mkt	40.95	44.66	43.89	44.28	35.82	30.38	44.34	41.2	44.66	42.67	43.97	35.98	30.31	44.28	41.76	46.51	47.33	47.33	37.94	31.94	46.61	44.32	47.45	36.59	44.54	37.83	33.25	45.13	44.34	46.96		
1	2022 November Market Prs 2 PM Mkt	40.79	43.99	44.28	44.78	34.62	30.17	44.44	40.97	44.78	44.66	44.13	33.92	30.38	44.48	41.85	46.05	46.54	46.83	36.39	30.43	45.59	44.66	47.51	29.68	43.41	36.41	32.92	44.72	44.42	46.61		
1	2022 November Market Prs 3 PM Mkt	40.74	43.8	44.53	44.34	31.15	29.18	44.66	41.42	44.32	44.48	44.42	32.57	29.93	44.28	42.59	45.39	46.8	46.37	35.59	30.09	45	44.78	46.83	28.21	43.37	33.31	32.73	44.25	44.15	46.76		
1	2022 November Market Prs 4 PM Mkt	38.85	43.75	43.61	43.83	26.65	28.25	45.06	41.48	44.34	44.08	43.77	32.56	29.87	44.66	41.35	46.27	46.15	46.38	35.97	30.15	46.34	44.66	47.26	28.27	43.55	33.67	32.84	45.04	44.28	46.79		
1	2022 November Market Prs 5 PM Mkt	41.28	44.28	44.02	43.76	36.56	31	44.98	41.66	44.28	44.66	43.97	32.8	30.58	44.94	44.28	46.64	47.24	46.84	35.63	33.78	46.51	45.71	47.76	28.23	44.02	35.87	37.66	46.34	45.55	46.94		
1	2022 November Market Prs 6 PM Mkt	44.28	44.78	44.98	44.66	36.72	37.3	45.37	43.94	45.19	46.13	44.98	37.04	37.06	46.61	44.38	48.12	48.16	46.89	41.76	40.65	46.93	47.03	50.24	33.78	46.47	41.63	41.13	46.47	47.68	50.18		
1	2022 November Market Prs 7 PM Mkt	44.45	46.3	45.32	44.66	38.06	38.4	46.34	44.47	46.37	46.22	45.5	37.94	38.95	46.53	45.15	47.96	50.24	47.69	41.78	40.78	46.83	48.02	49.38	38.61	47.85	42	42.85	46.83	47.52	51.17		
1	2022 November Market Prs 8 PM Mkt	44.44	45.16	45.82	44.66	37.48	37.28	44.95	44.48	45.71	45.73	45.46	37.37	37.32	45.73	44.11	47.54	48.72	47.56	40.84	41.52	47.48	47.57	47.55	39.01	47.16	41.22	42.83	46.73	46.74	49.5		
1	2022 November Market Prs 9 PM Mkt	42.11	45.32	43.92	44.04	34.27	38.15	44.28	43.18	44.78	44.88	44.66	35.76	36.1	44.66	41.85	46.81	47.73	46.85	39.12	40.54	46.29	47.43	47.03	37.99	46.97	38.82	39.24	44.66	46.61	47.56		
1	2022 November Market Prs 10 PM Mkt	43.32	44.54	41.69	41.64	30.15	32.81	43.66	43.16	43.85	44.54	42.68	33.38	32.83	43.54	43.3	46.63	47.58	47.16	37.66	38.79	46.06	47.28	46.34	36.75	45.18	36.63	38.16	44.32	45.74	47.62		
1	2022 November Market Prs 11 PM Mkt	31.81	34.54	30.64	31.34	27.56	27.83	35.9	33.78	36.64	37.66	37.01	27.9	28.16	35.51	34.6	42.76	43.05	42.87	33.32	32.2	40.4	42.68	40.8	33.15	40.94	30.29	29.32	37.5	41.54	43.86		
1	2022 November Market Prs Midnight h	28.3	30.68	27.58	28.33	26.05	26.41	28.43	28.08	28.49	29.61	29.99	26.24	26.67	30.2	29.11	40.51	39.99	40.43	28.36	28.17	32.79	37.37	32.74	30.81	36.56	27.59	27.78	31.9	37.66	41.19		
1	2022 December Market Prs 1 AM Mkt	31.34	34.84	36.18	32.79	30.34	28.75	43.21	41.86	43.24	43.06	35.85	30.54	34.8	38.52	33.53	36.68	38	38.51	36.55	35.38	45.04	42.77	35.78	26.27	27.01	27.52	27.57	25.88	26.68	29.85	29.5	
1	2022 December Market Prs 2 AM Mkt	30.84	34.34	34.48	28.95	30.09	37.11	43.04	41.07	41.56	41.22	33.34	30.64	32.44	37.41	32.5	34.63	37.58	33.18	34.63	32.99	43.06	38.91	34.11	28.08	26.27	26.53	26.85	27.58	26.58	28.74	28.24	
1	2022 December Market Prs 3 AM Mkt	30.15	32.95	33.12	28.31	28.48	35.08	42.94	38.28	37.78	40.72	30.28	30.15	32.33	37.22	31.67	33.94	35.72	33.53	33.84	31.89	43.25	37.74	32.91	24.45	25.88	26.15	26.3	25.8	26.27	27.42	27.84	
1	2022 December Market Prs 4 AM Mkt	30.64	33.05	32.02	28.59	30.41	35.06	43.2	39.3	40.52	38.51	30.53	30.15	31.17	38.26	32.35	34.4	33.83	34.27	37.26	41.52	42.85	36.51	32.19	26.92	25.88	26.61	26.26	27.42	26.27	27.52	26.68	
1	2022 December Market Prs 5 AM Mkt	33.18	33.87	32.4	28.95	32.83	36.8	43.3	43.09	41.74	38.9	32.74	27.62	36.01	39.05	34.2	35.07	34.63	34.81	38.15	43.4	43.82	42.73	32.02	26.68	26.08	27.83	24.48	27.78	26.66	26.82	27.45	
1	2022 December Market Prs 6 AM Mkt	37.51	38.84	36.69	29.2	37.51	44.85	45.99	45.35	43.52	41.97	32.86	41.57	41.93	43.22	41.17	39.08	37.94	34.42	45.09	46.89	45.91	43.35	34.91	28.23	26	27.95	28.95	28.95	28.64	28.28	28.17	
1	2022 December Market Prs 7 AM Mkt	47.32	47.98	37.63	28.74	48.38	49.88	51.24	51.24	49.52	44.86	34.02	47.68	47.96	50.94	47.61	47.79	41.3	36.29	49.88	51.31	50.95	49.22	44.62	25.88	25.88	28.11	33.86	38.51	38.94	38.94	28.73	
1	2022 December Market Prs 8 AM Mkt	49.79	49.87	42.82	31.18	50.86	51.49	52.07	52.71	51.05	45.96	38.94	51.24	51.15	52.26	51.04	49.68	45.95	41.98	51.16	53.87	53.18	51.28	46.38	26.27	27.58	30.57	43.14	42.52	38.51	43.05	32.05	
1	2022 December Market Prs 9 AM Mkt	48.02	49.71	45.57	37.53	50.65	50.64	51.27	50.95	50.95	46.84	41.28	50.53	50.95	51.4	49.87	49.83	45.82	44.27	51.53	53.58	52.41	50.94	46.77	34.63	30.29	34.7	43.74	43.74	44.97	45.55	34.46	
1	2022 December Market Prs 10 AM Mkt	48.13	49.51	45.63	37.05	50.57	50.02	50.95	50.87	51.01	46.75	43.04	50.22	50.3	50.34	50.58	50.04	46.7	45.16	51.27	51.18	51.24	50.68	47.27	37.55	33.74	37.45	44.77	45.53	46.09	45.91	36.16	
1	2022 December Market Prs 11 AM Mkt	49.13	49.7	46.96	39.83	50.65	50.21	51.24	50.95	51.3	47.38	43.7	50.32	49.51	50.9	49.73	49.65	46.71	43.16	51.3	50.85	50.93	50.56	46.57	37.2	30.95	38.51	45.16	45.27	46.9	46.33	39.38	
1	2022 December Market Prs Noon Mkt	49.17	49.65	45.79	40.18	50.68	49.67	50.51	51.04	50.95	46.5	41.86	49.73	49.68	50.9	49.68	49.73	45.37	43.02	51.05	50.84	50.68	50.03	46.33	35.44	32.02	38.39	44.53	45.79	46.87	46.44	38.11	
1	2022 December Market Prs 1 PM Mkt	47.67	49.73	44.35	37.32	49.86	49.65	49.9	50.23	50.95	44.06	39.89	49.54	47.82	50.25	49.68	49.31	45.33	39.26	50.7	49.68	49.94	47.96	46.01	33.66	28.95	33.84	43.36	44.95	44.93	46.46	32.76	
1	2022 December Market Prs 2 PM Mkt	47.79	48.83	44.84	38.51	49.68	49.56	49.72	50.32	51.24	43.1	38.51	48.44	47.39	50.62	49.67	49.49	42.87	39.03	50.74	49.65	49.73	48.8	44.82	30.75	28.23	32.45	42.68	43.77	46.47	45.87	31.73	
1	2022 December Market Prs 3 PM Mkt	48.97	47.08	43.09	34.87	48.7	49.31	49.64	50.25	49.81	43.36	34.8	49.43	47.44	50.36	49.69	47.96	41.85	38.33	49.72	49.64	49.67	47.93	42.73	30.15	27.02	30.87	42.5	44.95	46.6	43.72	31.16	
1	2022 December Market Prs 4 PM Mkt	48.99	48.8	43.56	35.56	49.55	49.62	49.55	50.73	50.13	41.41	34.61	48.46	47.96	50.78	49.68	47.82	42.9	38.42	49.71	49.7	49.68	47.06	42.54	30.15	25.88	30	41.52	45.48	46.55	43.46	30.23	
1	2022 December Market Prs 5 PM Mkt	49.68	49.66	45.42	39.64	50.5	49.58	51.24	50.95	50.95	45.35	40.42	49.71	49.66	51.28	49.7	48.83	46.02	40.68	50.89	50.87	50.61	47.79	43.46	32.31	27.01	33.04	42.41	46.55	47.51	45.15	31.49	
1	2022 December Market Prs 6 PM Mkt	51.27	50.87	47.49	46.54	51.81	55.55	57.99	54.42	54.34	47.88	46.56	54.45	56.73	58.41	53.58	51.47	47.79	47.55	58.59	56.67	55.62	50.93	47.82	37.31	30.28	43.07	47.41	48.73	48.83	47.73	39.75	
1	2022 December Market Prs 7 PM Mkt	50.95	50.95	46.79	45.81	53.18	54.75	57.38	55.27	52.71	47.47	46.82	52.68	55.9	57.21	52.1	50.88	47.23	46.87	57.35

EXHIBIT 9

Thomas Cmar

From: Tyson Kamuf <tkamuf@smsmlaw.com>
Sent: Tuesday, June 25, 2013 5:24 PM
To: Shannon Fisk; Michael Kurtz; Hans, Jennifer (KYOAG); Jim Miller; Chris Hopgood; myates@dklaw.com; tbrite@bbtel.com; Cook, Larry (KYOAG); Howard, Dennis (KYOAG); Kurt Boehm; childerslaw81@gmail.com; Billie.Richert@bigrivers.com; tip.depp@dinsmore.com; Richard.Raff@ky.gov; Mark Bailey; Nguyen, Quang D (PSC); Burns Mercer; Kelly Nuckols; gstarheim@kenergycorp.com; robb.kapla@sierraclub.org; joe@jchilderslaw.com; Thomas Cmar; deanna.speed@bigrivers.com
Subject: RE: Big Rivers' revised responses to SC Supplemental Requests, Case No 2012-00535

Shannon,

Please note that certain information contained in this email is confidential and has been filed under petitions for confidential treatment. In response to the statements in your letter from yesterday regarding SC 2-3, [redacted] Big Rivers has provided all the detail that is available in the PCM and financial model runs on the confidential CD submitted in its second response to SC 2-3. For the capital and FDE costs used in Big Rivers financial model provided on the confidential CD in its second response to SC 2-3, Big Rivers [redacted] The adjustments for the Wilson restart in 2019 can be found in the financial model file on the tab labeled "Bud. Adj." in cells [redacted] Big Rivers FDE forecast for years [redacted] that were used in the financial model can be found on the tab labeled "O&M". Big Rivers capital forecast for years [redacted] that were used in the financial model can be found on the tab labeled "Capex & Depr". [redacted]

In response to the statements in your letter regarding SC 2-2(d), Big Rivers stated in PSC 2-21(c), "Wilson Station will be idled until such time the off-system power market price increases above the all-in cost (fixed and variable) of operating the plant less the costs of lay-up, or until such time Big Rivers is successful in acquiring a new load to replace the available capacity as a result of Century's exit." As stated in SC 2-2(d), Big Rivers evaluated production cost model runs Sens. 3 – Wilson idled and Sens. 4 – All Running in the financial model. Utilizing these two production cost model runs in the financial model, Big Rivers evaluated whether Wilson would recover the all-in cost in the power market.

In response to SC 1-22(d), Big Rivers provided the FDE cost savings by idling Wilson Station. It can be seen in that table that in 2016 the O&M fixed cost savings for idling Wilson is [redacted] Therefore, Wilson must have margins in the power market above this amount to cover its all-in cost and determine if it is beneficial to run in 2016. On the PCM run Sens. 4 – All Running on the Annual ISO Style Costs tab, Row 55, the Wilson net margins are calculated. In 2016, the net margins are [redacted] which is less than the FDE savings therefore it is beneficial for Wilson to be idled. In 2019, the net margins for Wilson are [redacted] and it is beneficial for Wilson to be restarted.

The files on the CD in Big Rivers' second response to SC 2-2 include the hybrid production cost model run of Sens. 3 – Wilson Idled and Sens. 4 – All Running and the financial model results of this hybrid run. The hybrid run displays Wilson being idled in September, 2013 and restarting in 2019.

Finally, your letter asks for additional information:

- Your letter states, "In the six production cost modeling runs that Big Rivers produced...." Note that there were five production cost modeling runs performed. On the CD provided in the response, there are six production cost modeling files (one file is a hybrid of Sens. 3 – Wilson Idled and Sens. 4 – All Running where Wilson is restarted in 2019) and the financial model for the hybrid run (Wilson idled in September, 2013 and restarted in 2019).

- Your letter asks us to identify the difference between the "DI_BREC BREC" prices and the "DI_BRECGen" prices. In the MISO market, Big Rivers receives an LMP (locational marginal price) for each generator and an

LMP for load. For the most part there are four LMP prices for the generators (1) all three Coleman units, (2) the two Green units and two HMP&L units, (3) the two Reid units, and (4) the Wilson unit. In the production cost models, the DI_BREC BREC prices are the forecasted LMP for Big Rivers load and the DI_BRECGen prices are the forecasted LMP for Big Rivers' generators excluding Coleman generators. Also, there is a DI_Coleman representing the forecasted LMP for the Coleman generators.

- Your letter asks, "Define the suffixes OFF, ON, and ATC. If OFF and ON refer to off-peak and onpeak, what hours are considered on-peak? Is ATC synonymous with 'All Hours'?" OFF and ON do refer to off peak and on peak respectively. OFF (off peak) represents the times from 10 PM to 6 AM and weekends. ON (on peak) represents the times from 6 AM to 10 PM on weekdays only. ATC (around the clock) is synonymous with "All Hours."

- Your letter asks us to define the prefixes DI and Pwr. DI represents derived index. When the production cost model calculates a value internally in the program (price is not inputted directly), DI is used as a prefix. For example, in the case of power prices (LMP's), a forward price curve is directly inputted into the production cost model. Based on various indices, the production cost model program will use that same forward price curve and derive prices for the load (DI_BREC.BREC), the generators excluding Coleman (DI_BRECGen) and the Coleman generators (DI_Coleman). Pwr is an abbreviation for Power.

- Your letter asks us to identify the rate of inflation from 2013 to 2027 assumed in the modeling. From 2017 through 2027 [redacted] was used in the financial model. In the production cost models, the US Zero Coupon Inflation rate [redacted] was used to inflate the non-fuel VOM costs for the generators (file is attached). The fuel pricing was inflated by [redacted] file is attached).

- Your letter asks, Explain the differences between the coal prices provided in the response to SC 2-5 and the coal prices found on the 'Annual Prices' tab of the production cost modeling runs." The coal prices found on the "Annual Prices" tab are from [redacted] These coal prices are not being used in the production cost model calculations. The coal prices provided in SC 2-5 are the forecasted delivered coal prices utilizing Big Rivers existing long term contracts, spot fuel purchases and forecasted delivery costs. The coal prices provided in SC 2-5 are being used in the production cost models.

Tyson Kamuf
Sullivan, Mountjoy, Stainback & Miller, P.S.C.
100 St. Ann Street, P.O. Box 727
Owensboro, Kentucky 42302-0727
(270) 926-4000
(270) 683-6694 fax

From: Shannon Fisk [mailto:sfisk@earthjustice.org]
Sent: Mon 6/24/2013 5:25 PM
To: Tyson Kamuf; Michael Kurtz; Hans, Jennifer (KYOAG); Jim Miller; Chris Hopgood; myates@dklaw.com; tbrite@bbtel.com; Cook, Larry (KYOAG); Howard, Dennis (KYOAG); Kurt Boehm; childerslaw81@gmail.com; Billie.Richert@bigrivers.com; tip.depp@dinsmore.com; Richard.Raff@ky.gov; Mark Bailey; Nguyen, Quang D (PSC); Burns Mercer; Kelly Nuckols; gstarheim@kenergycorp.com; robb.kapla@sierraclub.org; joe@jchilderslaw.com; Thomas Cmar
Subject: RE: Big Rivers' revised responses to SC Supplemental Requests, Case No 2012-00535

Mr. Miller and Mr. Kamuf,

Please find attached a letter regarding Big Rivers' revised response to Sierra Club's Supplemental Requests for Information in this proceeding.

Thanks,

Shannon

From: Tyson Kamuf [mailto:tkamuf@smsmlaw.com]
Sent: Friday, June 21, 2013 12:21 PM
To: Michael Kurtz; Shannon Fisk; Hans, Jennifer (KYOAG); Jim Miller; Chris Hopgood; myates@dklaw.com; tbrite@bbtel.com; Cook, Larry (KYOAG); Howard, Dennis (KYOAG); Kurt Boehm; childerslaw81@gmail.com; Billie.Richert@bigrivers.com; tip.depp@dinsmore.com; Richard.Raff@ky.gov; Mark Bailey; Nguyen, Quang D (PSC); Burns Mercer; Kelly Nuckols; gstarheim@kenergycorp.com; robb.kapla@sierraclub.org; joe@jchilderslaw.com; Thomas Cmar
Subject: Big Rivers' revised responses to SC Supplemental Requests, Case No 2012-00535

Counsel:
Pursuant to the Public Service Commission's June 19 order in this matter, please find attached Big Rivers' revised responses to Items 2, 3, 4, 5, and 8 of Ben Taylor and Sierra Club's Supplemental Requests for Information, absent the attachments. The attachments consist of 9 Excel files. Due to the size of those files, I will attempt to send them in 2 separate emails. If anyone does not receive those 2 emails from me shortly, please let me know.

Tyson Kamuf
Sullivan, Mountjoy, Stainback & Miller, P.S.C.
100 St. Ann Street, P.O. Box 727
Owensboro, Kentucky 42302-0727
(270) 926-4000
(270) 683-6694 fax

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Application of Big Rivers Electric Corporation For a General Adjustment in Rates	)))	**CASE NO. 2012-00535**

VERIFICATION

I, Frank Ackerman, verify, state, and affirm that I prepared or supervised the preparation of the testimony filed with this Verification, and that my testimony is true and accurate to the best of my knowledge, information, and belief formed after reasonable inquiry.

Frank Ackerman

STATE OF MASSACHUSETTS)
COUNTY OF MIDDLESEX)

Subscribed and sworn to before me, a Notary Public, in and before said County and State, by Frank Ackerman, this ____ day of June, 2013.

JANICE CONYERS
Notary Public
Commonwealth of Massachusetts
My Commission Expires
July 27, 2018

Notary Public

My Commission expires: 7/27/18

CERTIFICATE OF SERVICE

I certify that I had filed with the Kentucky Public Service Commission and served a copy of this public version of SUPPLEMENTAL TESTIMONY OF FRANK ACKERMAN via U.S. Mail and email on June 28, 2013 to the following:

Mark A Bailey
President CEO
Big Rivers Electric Corporation
201 Third Street
Henderson, KY 42419-0024

Honorable Thomas C Brite
Attorney At Law
Brite & Hopkins, PLLC
83 Ballpark Road
P.O. Box 309
Hardinsburg, KENTUCKY 40143

David Brown
Stites & Harbison, PLLC
1800 Providian Center
400 West Market Street
Louisville, KENTUCKY 40202

Jennifer B Hans
Assistant Attorney General's Office
1024 Capital Center Drive, Ste 200
Frankfort, KENTUCKY 40601-8204

J. Christopher Hopgood
Dorsey, King, Gray, Norment & Hopgood
318 Second Street
Henderson, KENTUCKY 42420

Honorable Michael L Kurtz
Attorney at Law
Boehm, Kurtz & Lowry
36 East Seventh Street
Suite 1510
Cincinnati, OHIO 45202

Burns E Mercer
Manager
Meade County R.E.C.C.
P. O. Box 489
Brandenburg, KY 40108-0489

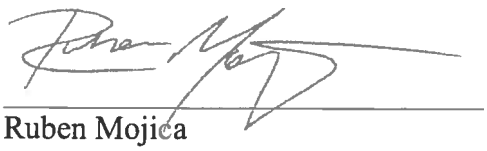
Honorable James M Miller
Attorney at Law
Sullivan, Mountjoy, Stainback & Miller, PSC
100 St. Ann Street
P.O. Box 727
Owensboro, KENTUCKY 42302-0727

G. Kelly Nuckols
President & Ceo
Jackson Purchase Energy Corporation
2900 Irvin Cobb Drive
P. O. Box 4030
Paducah, KY 42002-4030

Billie J Richert
Vice President Accounting, Rates & CFO
Big Rivers Electric Corporation
201 Third Street
Henderson, KY 42419-0024

Donald P Seberger
Rio Tinto Alcan
8770 West Bryn Mawr Avenue
Chicago, ILLINOIS 60631

Melissa D Yates
Attorney
Denton & Keuler, LLP
555 Jefferson Street
P. O. Box 929
Paducah, KENTUCKY 42002-0929



Ruben Mojica