

1 **COST ALLOCATION**

2

3 In accordance with section 2.7 of the OEB’s Filing Requirements,¹ this schedule details
4 Toronto Hydro’s completed cost allocation study, inclusive of class revenue requirements,
5 revenue-to-cost ratios and other pertinent information. Relying on the 2025 revenue
6 requirement detailed in Exhibit 6, Toronto Hydro allocated a portion of revenue requirement
7 to each rate classes for the purpose of calculating distribution rates for the 2025 rebasing
8 year. Toronto Hydro’s cost allocation relies on the OEB’s latest cost allocation model,
9 including the OEB’s updated policy related to the Street Lighting class, subject to the
10 adjustments noted in section 2.4 below.²

11

12 Consistent with the methodology relied upon in EB-2014-0116 and EB-2018-0165, Toronto
13 Hydro completed a cost allocation study for the 2025 test year, and extended the results to
14 allocate the 2026 to 2029 revenue requirement to rate classes. Exhibit 7, Tab 1, Schedule 3
15 provides a live version of the 2025 cost allocation model.

16

17 **1. COST ALLOCATION MODEL**

18 Toronto Hydro reviewed and updated all necessary inputs of the cost allocation model.

19

20 **1.1 Weighting Factors for Allocation**

21 Toronto Hydro reviewed all “default” allocators, and where available, used data specific to
22 Toronto Hydro to determine the allocator values. The weighting factors for Services and
23 Billing and Collections were determined as follows:

¹ Ontario Energy Board, *Filing Requirements for Electricity Distribution Rate Applications*, Chapter 2 (December 15, 2022).

² Ontario Energy Board, *Issuance of New Cost Allocation Policy for Street Lighting Rate Class* (June 12, 2015).

- 1 • **Services:** All rate classes, with the exception of the Competitive Sector Multi-Unit
2 Residential (“CSMUR”), Unmetered Scattered Load (“USL”) and Street Lighting
3 classes, received a weighting factor of one, reflecting the reality that service costs
4 greater than a basic allowance are recovered through a direct contribution from the
5 customers. The weighting factor for the CSMUR rate class is derived by dividing the
6 number of units by the number of buildings housing these units, as originally directed
7 by the OEB in EB-2010-0142. For the USL and Street Lighting classes, the cost of
8 services is directly collected from those customers, requiring that they receive a
9 weighting factor of zero.
- 10 • **Billing and Collections:** The class-specific weighting factors reflect estimates of billing
11 effort and costs related to each class based on the experience and expertise of
12 Toronto Hydro’s billing specialists.

13

14 In accordance with past OEB decisions, Toronto Hydro proposes to maintain the use of the
15 modified density factor at 23 percent.^{3,4} This reflects a considerably higher customer density
16 per kilometer in Toronto compared to the OEB’s default value.⁵

17

18 **1.2 Load Profiles and Demand Allocators**

19 In order to normalize for anomalous load profiles during the COVID-19 pandemic period,
20 Toronto Hydro utilized 2019 load data for the purpose of establishing load profiles for use in
21 cost allocation, as the years 2020-2022 were impacted by pandemic-related trends.
22 Specifically, the utility updated the load profiles used for the demand allocators based on
23 weather normalized hourly-metered 2019 load data for each rate class, as further described

³ See 2015-2019 Rate Application (EB-2014-0116) and 2020-2024 Rate Application (EB-2018-0165),

⁴ See Cost Allocation Model in Exhibit 7A, Tab 1, Schedule 3, E1 Categorization. The “density factor”, also known as the “customer allocation component”, is used to determine the proportion of customer and demand-related costs.

⁵Toronto Hydro’s density of 133 customers per kilometers of line, as determined by the model, is well above the OEB’s default of 60 customers per kilometers of line.

1 below. For the Residential, CSMUR and General Service rate classes Toronto Hydro used
2 sample metering data sets, while entire rate class data sets were used for Unmetered Scatter
3 Load Class (“USL”) and Street Lighting rate classes.

4

5 The hourly load profiles were reconciled to the 2019 purchased energy and wholesale
6 market participant data and weather normalized to 2025 heating and cooling degree days.
7 The weather normalization methodology is based on a ratio between the 2019 weather
8 normalized and 2019 non-weather normalized loads from the revenue load forecast.
9 Weather normalization in the revenue load forecast is calculated by making adjustments to
10 the monthly energy purchases either in excess or below what would be purchased under
11 average weather conditions. Average weather conditions are based on a ten-year historical
12 average of heating and cooling degree-days, and dew-point temperature. This methodology
13 is in accordance with Toronto Hydro’s previous filings (EB-2018-0165 and EB-2014-0116).
14 Please refer to Exhibit 3 for more information on Toronto Hydro’s weather normalization
15 methodology for its revenue load forecast.

16

17 The load profiles were scaled to the 2025 baseline load forecast based on the ratio of 2025
18 kWh to 2019 kWh by class. Resulting load profiles were modified to include electric vehicles
19 (“EVs”) and distributed energy resources (“DERs”) forecasted load impacts. A detailed
20 explanation of EV and DER inclusion can be found in the integration model report prepared
21 by ClearSpring Energy Advisors in Exhibit 3, Tab 1, Schedule 1, Appendix J. An example of the
22 data and calculations is filed as Exhibit 7, Tab 1, Schedule 2.

23

24 **1.3 Street Lighting**

25 Initially approved by the OEB in EB-2014-0116 and followed by the latest OEB approval in
26 EB-2018-0165, Toronto Hydro has included approved Street Lighting assets and operating

1 expenses in its 2025 revenue requirement. For the purposes of cost allocation, all assets and
2 expenses are directly allocated 95 percent to the Street Lighting class, and 5 percent to the
3 USL class. This allocation reflects prior OEB Decisions, and the fact that these assets only
4 serve these two classes. In addition, 100 percent of the Street Lighting related revenue
5 requirement is offset through a direct allocation to Revenue Offsets for the Street Lighting
6 class. The effect is a revenue-to-cost ratio of 1.0 for these assets and costs.

7

8 **1.4 Adjustments to Cost Allocation Model**

9 The following adjustments were made to the OEB's cost allocation model to meet Toronto
10 Hydro's circumstances and requirements.

- 11 • In Worksheet I6.1 Revenue, cell L39 was locked. Toronto Hydro modified the formula
12 to calculate the revenue from three tier rates for USL rate class.
- 13 • In Worksheet I6.2 Customer Data, cells M28 and M29 were adjusted to reflect the
14 direct assignment of meter capital and meter reading costs for the CSMUR rate class.
- 15 • In Worksheet O1 Revenue to Cost, cell J19 was modified to include the direct
16 assignment of revenue offsets related to the Street Lighting class, as noted above.
- 17 • In Worksheet E1 Categorization, cell E24 and E25 were modified to 0.23.

18

19 **2. IMPLEMENTATION OF COST ALLOCATION RESULTS**

20 OEB's Report: Review of Electricity Distribution Cost Allocation Policy (EB-2010-0219) dated
21 March 31, 2011 established updated "target ranges" for the revenue to cost ratios for each
22 customer class. The OEB's review of the Street Lighting cost allocation methodology resulted
23 in an updated target range for that rate class.⁶

24

⁶ *Supra* note 2.

1 Toronto Hydro proposes to maintain 2025 cost allocation for the 2026 to 2029 years, and is
 2 not proposing any manual adjustments to Revenue to Cost ratios over this period.

3
 4 Table 1 below shows the revenue to cost ratios calculated prior to and after the proposed
 5 2025 rate design in comparison with the OEB’s guideline ranges.⁷ The proposed revenue to
 6 cost ratios for all Toronto Hydro rate classes are within the OEB’s ranges.

7
 8 **Table 1: Revenue/Cost Ratios (%)**

Rate Class	2020 OEB Approved	2025		OEB’s Guideline Ranges
		Model	Proposed	
Residential	100.0%	102.1%	100.0%	85-115
Competitive Sector Multi-Unit Residential	100.0%	111.7%	100.0%	n/a
General Service <50kW	93.7%	97.4%	99.2%	80-120
General Service 50-999kW	105.6%	96.4%	98.9%	80-120
General Service 1000-4999kW	94.8%	94.4%	98.3%	80-120
Large Use	93.6%	97.2%	99.2%	85-115
Street Lighting	111.3%	119.4%	119.4%	80-120
Unmetered Scattered Load	120.0%	121.7%	120.0%	80-120

9
 10 In accordance with past OEB decisions, rates in the Residential and CSMUR class are set such
 11 that the revenue to cost ratios are equal at unity (i.e. 1.0 or 100 percent).

12
 13 With respect to the Street Lighting class, the proposed revenue to cost ratio reflects the
 14 application of the updated OEB cost allocation model, and includes the allocation of revenue
 15 offsets related to the Street Lighting assets in rate base to fully offset the costs that have
 16 been directly allocated to this class.

⁷ All ratios exclude revenues and costs related to transformer ownership allowance.

1 Toronto Hydro engages its customers with significant unmetered load (e.g. City,
2 telecommunications companies) as part of ongoing customer engagement. Through those
3 interactions and direct participation by these customers in OEB rate application and policy
4 proceedings, they have developed familiarity with the regulatory context, including the basis
5 on which costs are allocated to them through rates. Toronto Hydro's proposed cost
6 allocation for unmetered customers (including street lighting) follows the OEB's current
7 methodology, which was developed in consultation with unmetered customers. With the
8 filing of this application, Toronto Hydro is sending a communication to major customers
9 within these classes regarding changes to rates and charges, and inviting them to participate
10 in the proceeding.

11

12 **3. COST ALLOCATION REVIEW**

13 In the Cost Allocation and Rate Design section of its Decision in EB-2018-0165, the OEB
14 concluded that it would be appropriate to review the characteristics of the CSMUR class and
15 its revenue-to-cost ratios in Toronto Hydro's next rebasing application.⁸ While the Decision
16 did not specify the manner in which that review should take place, in the interest of
17 facilitating it, in this section Toronto Hydro is setting out the background and evidence to
18 support reconsideration of the current approach, with specific details on two opportunities
19 to improve customer cost allocation.

20

21 **3.1 Background on CSMUR Rate Class**

22 The CSMUR class was established in Toronto Hydro's EB-2010-0142 application. In that
23 proceeding the OEB defined suite metering, as "*the installation of a separate meter for each*

⁸ EB-2018-0165, Decision and Order (December 19, 2020) at pages 156-157.

1 *unit of a multi-unit residential building where there is no bulk meter that is used for the*
2 *purposes of settlement.”*⁹ In a Partial Decision issued July 7, 2011, the OEB determined that:

3
4 ...due to the existence of a competitive market for the provision of unit sub-
5 metering it is appropriate to ensure that procurement choices, as between
6 licensed distributors (suite metering) and licensed unit sub-meter providers (unit
7 submetering) are made on a comparable economic basis both within the
8 competitive unit sub-metering marketplace and between this competitive
9 market place and the monopoly service...The Board has determined that the
10 creation and maintenance of a separate rate class for multi-residential
11 customers that at the present time are served utilizing Quadlogic technology is
12 the most effective and transparent manner in which to address the
13 aforementioned issues.¹⁰

14

15 Subsequent to the OEB’s Partial Decision, Toronto Hydro submitted supplemental evidence
16 on September 30, 2011, in which a new rate class for suite metered customers was
17 proposed, accompanied by cost allocation evidence and proposals.¹¹ Among the
18 assumptions and proposals made, Toronto Hydro included proposals for the allocation of
19 secondary system costs for customers in the new rate class, which would recognize that a
20 minority of such customers utilized Toronto Hydro’s secondary system assets.¹² Following
21 interrogatories, an oral hearing, argument, and other procedural matters, the OEB issued a
22 Decision and Order on the Suite Metering Issues.¹³

⁹ EB-2010-0142, Partial Decision and Order (July 7, 2011) at page 33

¹⁰ *Ibid.* at page 35

¹¹ EB-2010-0142, Exhibit L1, Tab 5, Schedule 1 (September 30, 2011)

¹² *Ibid.* at page 5

¹³ EB-2010-0142, Decision and Order (February 22, 2012)

1 Among other findings specific to suite metering cost allocation, the OEB stated the following:

2

3 The Board finds that no adjustment for secondary costs should be made on the
4 basis that there is insufficient evidence on the record in this proceeding to
5 determine an appropriate allocation of these costs between the two residential
6 classes...The Board recognizes that many customers in the [CSMUR]¹⁴ class do
7 not receive their service through the secondary voltage system. However, the
8 same is true of the remaining Residential class, although proportionately to a
9 lesser degree, based on the cost allocation studies done by BDR. The same may
10 be true of other classes as well. The Board does not have reliable information on
11 this record on the number of customers or their load statistics in the classes
12 other than [CSMUR]...The Board expects that THESL will incorporate the
13 distinction between the secondary and primary systems in future cost allocation
14 studies, and that it will include the appropriate proportions within each class
15 where some customers are served from the secondary system and the rest are
16 served from the primary system.¹⁵

17

18 As noted by the OEB in the Decision and Order on Suite Metering Issues, Toronto Hydro did
19 not have sufficient information at the time to determine an alternative allocation of line
20 transformer and secondary system assets for the CSMUR, Residential and GS <50kW rate
21 classes. Having significantly advanced its collection of customer and asset data over the last
22 twelve years, and having improved its ability to analyze such data, Toronto Hydro is able to
23 leverage asset and customer specific information to study CSMUR cost allocation issues that
24 could not be examined on facts in EB-2010-0142.

¹⁴ Original quote reads 'Quadlogic' denoting the meter type used to serve customers in the CSMUR class at that time

¹⁵ *Supra* note 13 at page 18

1 **3.2 Potential Refinements to CSMUR Cost Allocation**

2 In reviewing the characteristics of the CSMUR rate class as noted by the OEB in the last
3 decision, Toronto Hydro identified two potential opportunities to refine the cost allocation
4 approach as further described below. These potential refinements would impact the OEB's
5 Cost Allocation Model in tabs I6.2 and I8.

6

7 *3.2.1 Customer Count*

8 Allocating primary system, line transformer, and secondary system costs in tab I6.2 of the
9 OEB's Cost Allocation Model requires the input of a customer base for each rate class;
10 assigning some portion of customers to line transformer and secondary system assets.
11 Historically, Toronto Hydro's Residential, CSMUR and GS<50 kW customer counts for
12 primary system, secondary and line transformer costs have been equal to the number of
13 customers in each rate class, identified by the number of meters in each rate class.

14

15 Toronto Hydro identified a potential inconsistency in the establishment of customer count
16 for this purpose. Given there is no bulk meter associated with CSMUR accounts, the
17 customer count in this rate class represents 'units' inside of a multi-unit building with
18 typically one primary connection, while in large part the customer counts of other rate
19 classes with comparable premise loads represent entire buildings, regardless of how many
20 units may be inside of them. The result is a larger allocation of costs through tab I6.2 to the
21 CSMUR class, despite many bulk and CSMUR buildings being comparable to each other
22 physical loads.

23

24 In the status quo approach, applying different methods for different rate classes to allocate
25 the primary, line transformer, and secondary assignments in tab I6.2 yields an inconsistency
26 that warrants further consideration by the OEB and interested parties. From Toronto

1 Hydro’s perspective, there are two alternatives to ensure consistent measurement: either
2 (i) all customer counts reflect ‘units’ per within a building, or (ii) all customer counts reflect
3 the number of buildings served. At this time, Toronto Hydro does not have sufficiently
4 accurate or verifiable data with respect to the number of units in buildings served by bulk
5 meters. To proceed with option (i) the utility would have to complete a detailed study by
6 rate class or rely on estimates derived from self-declarations made under the Ontario Energy
7 Rebate (“OER”) which indicate that there are approximately 340,000 units behind bulk-
8 meters in Toronto.

9

10 Conversely, for option (ii) Toronto Hydro was able to generate from its systems and records
11 a representation of building count by rate class which could be used for cost allocation
12 purposes. In order to prepare a building count by rate class, Toronto Hydro retrieved
13 customer data from its Customer Information System (“CIS”), which included the addresses
14 of customers across Residential, CSMUR and GS<50 kW rate classes, as well as asset data
15 from its Geo-Electric Asset Records (“GEAR”) system which catalogues Toronto Hydro’s
16 system. Utilizing a combination of customer addresses and asset data, Toronto Hydro
17 prepared an alternative customer count for each of the Residential, CSMUR and GS<50 kW
18 rate classes that is representative of the number of buildings served, as opposed to the
19 number of individual meters. The status quo and alternative customer count results are
20 shown in Table 2 below.

21

22 **Table 2: Total Customer Count by Rate Class: Status Quo and Alternative**

Rate Class	Status Quo	Alternative
Residential	617,563	470,705
Competitive Sector Multi-Unit Residential	98,427	383
General Service <50kW	73,396	42,864

1 The resulting alternative customer count has a significant decrease to the count associated
2 with the CSMUR rate class which, all else equal, would be expected to reduce costs allocated
3 to the CSMUR rate class.

4

5 *3.2.2 Line Transformer and Secondary System*

6 Based on improved data collection and analysis, Toronto Hydro is now in a position to
7 provide more specific and accurate information with respect to use of line transformer and
8 secondary system assets in the CSMUR, Residential and GS <50kW rate classes. To complete
9 this analysis, Toronto Hydro relied on the same customer information noted above in (i.e.
10 CIS and GEAR data, including distinct cable and transformer identification numbers).
11 Included within GEAR, are ownership attributes, denoting whether Toronto Hydro or the
12 customer own the line transformer or secondary assets in question.

13

14 For the CSMUR rate class, Toronto Hydro observed that 61 percent of CSMUR buildings are
15 served by Toronto Hydro line transformers, and 30 percent are served by Toronto Hydro
16 secondary assets. The remaining CSMUR customers are either primary-connected, or own
17 their own line transformer and/or secondary system assets. This analysis was completed for
18 the vast majority of the CSMUR building population, providing strong coverage of the
19 buildings served in this rate class.

20

21 Toronto Hydro relied on the same approach described above to establish line transformer
22 and secondary system building counts for the Residential and GS <50kW rate classes, with
23 one exception. For the Residential class, Toronto Hydro's analysis investigated addresses
24 (i.e. buildings) which included more than six customers, and within the GS <50 kW class the

1 investigation analyzed addresses (i.e. buildings) with more than one customer.¹⁶ In Toronto
 2 Hydro’s experience, it is unlikely that a significant number of Residential buildings with less
 3 than 7 customers, or GS <50 kW buildings with less than 2 customers, would have procured
 4 and subsequently managed their own line transformer and secondary system assets. The
 5 results of this analysis are presented in below in Table 3, which shows the alternative
 6 customer count of served by Toronto Hydro line transformer and secondary system assets
 7 in each rate class, relative to the total population of alternative customer counts in the class
 8 that are deemed to utilize these assets in the current model.

9

10 **Table 3: Alternative Line Transformer and Secondary**

	Residential		CSMUR		GS<50 kW	
	Alternative Customer Count	% of Total Alternative Customer Count	Alternative Customer Count	% of Total Alternative Customer Count	Alternative Customer Count	% of Total Alternative Customer Count
Line Transformer	470,611	99.98%	235	61.37%	42,438	99.01%
Secondary	470,093	99.87%	116	30.41%	35,553	82.95%

11

12 **3.3 Potential Impact Analysis**

13 The implementation of the cost allocation refinements outlined above in section 4.2.1 and
 14 4.2.2, all else being equal, would result in a shifting of costs away from the CSMUR customer
 15 class. For consideration, the following table presents 2025 Revenue to Cost (“R/C”) ratios
 16 for each rate class as follows:

- 17 A. Status Quo (i.e. without any refinement);
- 18 B. with Alternative Customer Count as noted in section 4.2.1;

¹⁶ Toronto Hydro relied on the tariff sheets class definition, “residential apartment buildings or the house service of a residential apartment building with more than 6 units”, presented in EB-2022-0065, Decision and Order (December 8, 2022) at pages 32-37.

- 1 C. with Alternative Line Transformer and Secondary as noted in section 4.2.2; and
 2 D. the combined effect of B and C.

3

4 **Table 4: R/C Ratios With and Without Cost Allocation Refinements**

Options	A	B	C	D
Rate Class	Status Quo	Alternative Customer Count	Alternative Line Transformer and Secondary	Combined
Residential	102%	97%	100%	96%
GS <50 kW	97%	100%	102%	104%
GS 50-999 kW	96%	99%	94%	96%
GS 1,000-4,999 kW	94%	97%	94%	96%
Large Use >5MW	97%	99%	97%	99%
Street Light	119%	110%	115%	110%
Unmetered Scattered Load	122%	93%	117%	92%
CSMUR	112%	150%	133%	174%

5

6 The cost allocation issues presented above relate to the movement and re-assignment of
 7 costs between customer groups, as opposed to a net increase or decrease of costs to
 8 customers overall. As such, Toronto Hydro does not propose a particular outcome with
 9 respect to the resolution of the issues presented, and sees merit to a collaborative approach
 10 which takes into account the views, preferences and expertise of all the parties whose
 11 interests are affected by cost allocation matters. This approach can place in the current
 12 proceeding through an OEB ordered settlement process or submissions to the OEB if a
 13 settlement cannot be reached between the parties.

The Data is for Illustrative Use Only

HouR	Cust 1	Cust 2	Cust 3	Cust 4	Cust 5	Cust 6	Cust 7	Cust 8	Cust 9	Cust 10	Total	Avg	Sample Rate Class Hourly Profile for Jan	Total of All rate Classes (Includes Sample Rate Class)	Sample Rate Class % of Sum of all Rate Classes	IESO Purchased and Wholesale Market Participants Metered Load	Sample Rate Class portion of the Total System Load.	Weather Correction Factor for Sample Rate Class is 0.964395	Demand scaled to the 2025 load forecast based on the ratio of 2025 sample rate class kWh to sample rate Class Test year kWh.	EV and DER Consumption Combined	Net Load with EV and DER Consumption			
												Sample size = 10					(h) = (g) * 0.964395							
												(b) = (a) / 10					(e) = (d) / (c)			(i) = (h) * 1.003497				
												(a)	(b)					(c) = (b) * 20			(j)			
												Total Number of Customers in Sample Rate Class in test year = 20						(d)	(e)	(f)	(g)			(k) = (i) + (j)
01-Jan-19	1	0.37	1.01	0.85	0.67	0.52	1.5	0.34	0.19	0.38	1.4	7.23	0.723	14.46	318.12	5%	349.93	15.91	15.34					
01-Jan-19	2	0.25	0.92	0.58	0.62	0.51	0.99	0.56	0.19	0.54	1.45	6.61	0.661	13.22	290.84	5%	349.01	15.86	15.30	2.16	17.56			
01-Jan-19	3	0.32	0.86	0.51	0.62	0.59	0.72	0.44	0.2	0.55	1.22	6.03	0.603	12.06	265.32	5%	318.38	14.47	13.96	1.68	17.03			
01-Jan-19	4	0.29	0.67	0.59	0.63	0.53	0.68	0.37	0.17	0.46	1.42	5.81	0.581	11.62	174.30	7%	209.16	13.94	13.45	1.28	15.29			
01-Jan-19	5	0.26	0.81	0.6	0.65	0.5	0.7	0.34	0.2	0.27	1.28	5.61	0.561	11.22	145.86	8%	175.03	13.46	12.98	0.96	14.46			
01-Jan-19	6	0.33	0.87	0.61	0.72	0.6	0.8	0.6	0.22	0.39	1.44	6.58	0.658	13.16	128.97	10%	154.76	15.79	15.23	0.64	13.67			
01-Jan-19	7	0.24	0.65	0.6	0.71	0.52	0.99	0.47	0.17	0.3	1.3	5.95	0.595	11.90	110.67	11%	132.80	14.28	13.77	0.41	15.69			
01-Jan-19	8	0.18	0.65	0.83	0.66	0.44	0.98	0.44	0.21	0.32	1.37	6.08	0.608	12.16	109.44	11%	131.33	14.59	14.07	0.23	14.05			
01-Jan-19	9	2.16	0.81	1.03	0.61	0.54	0.85	0.37	0.21	0.35	1.41	8.34	0.834	16.68	141.78	12%	226.85	26.69	25.74	0.14	14.26			
01-Jan-19	10	0.63	0.59	0.79	0.63	0.54	0.67	0.47	0.36	0.32	1.44	6.44	0.644	12.88	103.04	13%	123.65	15.46	14.91	0.09	25.92			
01-Jan-19	11	1.45	1.12	0.82	0.95	0.61	0.88	1.21	0.19	0.27	1.44	8.94	0.894	17.88	107.28	17%	128.74	21.46	20.69	0.06	15.02			
01-Jan-19	12	0.66	1.02	0.82	0.88	0.58	0.8	0.58	0.28	0.32	1.33	7.27	0.727	14.54	116.32	13%	209.38	26.17	25.24	0.06	20.82			
01-Jan-19	13	2.71	0.91	0.93	1.18	0.72	0.79	0.71	0.23	0.75	1.42	10.35	1.035	20.70	175.95	12%	193.55	22.77	21.96	0.07	25.40			
01-Jan-19	14	0.83	0.95	0.8	0.96	0.62	0.87	0.59	0.19	0.58	1.67	8.06	0.806	16.12	145.08	11%	365.04	40.56	39.12	0.08	22.11			
01-Jan-19	15	0.64	0.98	0.67	1.14	0.57	0.53	0.5	0.2	0.58	1.45	7.26	0.726	14.52	145.20	10%	188.76	18.88	18.20	0.09	39.34			
01-Jan-19	16	0.57	0.78	0.75	0.77	1.43	0.51	0.25	0.14	0.5	1.6	7.3	0.73	14.60	160.60	9%	192.72	17.52	16.90	0.13	18.40			
01-Jan-19	17	0.46	1.03	1.01	0.79	1.18	0.51	0.37	0.19	0.35	1.63	7.52	0.752	15.04	90.24	17%	261.97	43.66	42.11	0.19	17.15			
01-Jan-19	18	1.14	2.79	1.01	0.84	0.7	1.03	0.33	0.26	0.44	1.49	10.03	1.003	20.06	220.66	9%	264.79	24.07	23.21	0.27	42.53			
01-Jan-19	19	2.29	2.4	0.88	0.89	0.78	1.13	1.33	0.52	0.96	1.51	12.69	1.269	25.38	279.18	9%	335.02	30.46	29.37	0.35	23.64			
01-Jan-19	20	0.8	2.54	0.88	0.94	0.88	0.96	1.85	0.58	0.57	1.38	11.38	1.138	22.76	273.12	8%	327.74	27.31	26.34	0.40	29.87			
01-Jan-19	21	1.16	2.1	1.19	1.2	0.75	1.26	0.91	0.66	0.7	1.77	11.7	1.17	23.40	304.20	8%	334.62	28.08	27.08	0.44	26.87			
01-Jan-19	22	0.8	1.15	1.12	1.04	0.62	1.15	0.79	0.53	0.73	1.88	9.81	0.981	19.62	274.68	7%	329.62	23.54	22.71	0.48	27.66			
01-Jan-19	23	0.6	0.98	1.02	0.79	0.63	1.12	0.51	0.81	0.7	1.93	9.09	0.909	18.18	272.70	7%	327.24	21.82	21.04	0.50	23.29			
01-Jan-19	24	0.52	1.02	0.64	0.78	0.64	1.01	0.34	0.34	0.71	1.86	7.86	0.786	15.72	251.52	6%	301.82	18.86	18.19	0.50	21.61			
																			18.26	2.55	20.81			