



JOSEPH P VIOLA
 Vice President
 Regulatory Affairs

FILED

2016 NOV 10 P 3 11

November 10, 2016

**PUBLIC UTILITIES
 COMMISSION**

The Honorable Chair and Members
 of the Hawai'i Public Utilities Commission
 465 South King Street
 Kekuanao'a Building, First Floor
 Honolulu, Hawai'i 96813

Dear Commissioners

Subject Tariff Transmittal Nos 16-01, 16-02, and 16-03 (Decoupling) (Consolidated)
 Hawaiian Electric Companies' Response to Commission Informal Information
 Request and Motion for Calendar Year Accrual of Rate Adjustment Mechanism
 Revenues

On November 1, 2016, the Hawaiian Electric Companies¹ filed a letter to respond to the Commission's informal information request during the 2016 decoupling presentation ("Letter") and a motion to preserve and make permanent the method of recognizing Rate Adjustment Mechanism ("RAM") revenues on a calendar year basis ("Motion") Subsequent to these filings, the Companies discovered there were items in the Letter and Motion that require correction

In the Companies' Motion, page 8, the numbers for Case C(2) (RAM Revenue Recognition with Settlement and Preservation) that were shown in the table were miscalculated The revised corrected table is shown below

Illustrative Example Revenue Recognition (\$ in millions)	2017	2018
C(2) RAM Revenue Recognition with Settlement and Preservation	\$83	\$10
D(2) RAM Revenue Recognition with Settlement (No Preservation)	\$59	\$6
Higher revenue recognition with preservation	\$24	\$4

¹ The "Hawaiian Electric Companies" or "Companies" are Hawaiian Electric Company, Inc (Hawaiian Electric), Maui Electric Company Limited (Maui Electric) and Hawai'i Electric Light Company, Inc ("Hawai'i Electric Light")

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November 10, 2016
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Attachment 2 to the Companies' Letter, pages 1 and 6-7, which provide the support for the table above, were likewise revised to calculate the correct customer collection impact for Case C (RAM with Settlement and Preservation). The same correction was made in the Companies' Motion, Attachment A, pages 1 and 6-7, as Attachment 2 in the Companies' Letter and Attachment A in the Companies' Motion are identical. The revised Attachment 2 and Attachment A, in their entirety, are included as attachments to this letter.

Also, in the Companies' Motion, footnote 13 on page 8 should have stated

“In other words, the Company would recover only 5/12 of the calendar year RAM Revenue Adjustment.”

Enclosed is the corrected page 8 of the Motion.

The corrections identified above are limited to slightly reducing the illustrative impact of the Companies' request only, and do not change any other aspects of the Companies' Motion.

The Companies apologize for any inconvenience it may have caused.

Sincerely,



Joseph P. Viola
Vice President
Regulatory Affairs
Hawaiian Electric Company, Inc.

Vice President
Hawai'i Electric Light Company, Inc.
Maui Electric Company, Limited

Enclosures
cc Division of Consumer Advocacy

**Confidential Information Deleted
Pursuant To Protective Order No. 2016-PO-03.**

- In 2017, the Company would accrue 10 months (January to October) of recovery of the 2017 RAM adjustment (at which time the RAM would terminate and be replaced by the interim rate relief for the remaining two months of the year) ¹²
- In 2018, the Company would accrue 12 months (January to December) of 2018 RAM

If there is no preservation of the calendar year accrual [Case D(2) RAM Revenue Recognition with Settlement (No Preservation) in Attachment A]

- In 2017, the Company would only record five months of the 2017 RAM recovery (June to October, and then be replaced by the interim rate relief for November and December of that year), leaving five months (January to May) permanently unrecovered ¹³
- In 2018, the Company would only record 7 months of the 2018 RAM (June to December)

Illustrative Example Revenue Recognition (\$ in millions)	2017	2018
C(2) RAM Revenue Recognition with Settlement and Preservation	\$83	\$10
D(2) RAM Revenue Recognition with Settlement (No Preservation)	\$59	\$6
Higher revenue recognition with preservation	\$24	\$4

Based on its 2017 budget, Hawaiian Electric estimates that, without preservation of the current accrual method, it could see a negative impact to net income of roughly [REDACTED] and

¹² In other words, the Company would recover 10/12 of the calendar year RAM Revenue Adjustment

¹³ In other words, the Company would recover only 5/12 of the calendar year RAM Revenue Adjustment

Attachment 2 (corrected)
(\$ in millions)

	A(1)	B(1)	C(1)	D(1)
Customer RAM Payments	RAM Collected in RAM Period	RAM Collections without Settlement	RAM Collections with Settlement and Preservation	RAM Collections with Settlement (No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	57	57
2015	77	74	74	74
2016	88	85	85	85
2017 Illustration	83	79	86	79
2018 Illustration	10	6	24	6
2019 Illustration	14	7	7	7
	419	367	392	367

	A(2)	B(2)	C(2)	D(2)
RAM Accruals for Financial Statements	RAM Revenue Recognition in RAM Period	RAM Revenue Recognition without Settlement	RAM Revenue Recognition with Settlement and Preservation	RAM Revenue Recognition with Settlement (No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	69	69
2015	77	74	77	77
2016	88	85	88	88
2017 Illustration	83	79	83	59
2018 Illustration	10	6	10	6
2019 Illustration	14	7	14	7
	419	367	404	367

Case A RAM collection and accrual in the RAM period (calendar year Jan-Dec)

Case B RAM collection and accrual without Settlement (i.e. June 1 - May 31)

Case C RAM collection and accrual with Settlement and Preservation
Beginning 2014, RAM for RAM period = accrual for calendar year
RAM Regulatory Asset amortized and collected upon change in base rates incorporating the RAM
RAM Regulatory Asset collection between date of change in rates to June 1 of following year

Case D RAM collection and accrual based on Settlement (no Preservation)
Beginning 2014 and ending 2016, RAM for RAM period = accrual for calendar year
RAM Regulatory Asset amortized monthly January - May 2017

Attachment 2 - Overview of RAM Collections and Revenue Recognition (corrected)
(\$ in millions)

A(1) RAM Collected in RAM Period (Jan-Dec)										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	Calendar
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Year Total
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	
Assumed for Illustration						88.4	100	10	30	
2011 Jan-May	9.1									15.0
2011 June-Dec	5.9									
2012 Jan-May		13.5								22.4
2012 June-Dec		8.9								
2013 Jan-May			23.2							38.5
2013 June-Dec			15.3							
2014 Jan-May				41.7						69.3
2014 June-Dec				27.5						
2015 Jan-May					46.0					77.4
2015 June-Dec					31.4					
2016 Jan-May						53.3				88.4
2016 June-Dec						35.1				
2017 Jan							8.1			
2017 Feb							7.3			
2017 Mar							8.1			
2017 Apr							7.8			
2017 May							8.4			
2017 June							8.5			83.5
2017 July							8.8			
2017 Aug							9.0			
2017 Sept							8.7			
2017 Oct							8.8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								0.8		
2018 Feb								0.7		
2018 Mar								0.8		
2018 Apr								0.8		
2018 May								0.8		
2018 June								0.8		10.0
2018 July								0.9		
2018 Aug								0.9		
2018 Sept								0.9		
2018 Oct								0.9		
2018 Nov								0.8		
2018 Dec								0.8		
2019 Jan									2.4	
2019 Feb									2.2	
2019 Mar									2.4	14.5
2019 Apr									2.4	
2019 May									2.5	
2019 June									2.5	
	15.0	22.4	38.5	69.3	77.4	88.4	83.5	10.0	14.5	418.9

A(2) RAM Revenue Recognition in RAM Period (Jan-Dec)

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	9.1									15.0
2011 June-Dec	5.9									
2012 Jan-May		13.5								22.4
2012 June-Dec		8.9								
2013 Jan-May			23.2							38.5
2013 June-Dec			15.3							
2014 Jan-May				27.5						69.3
2014 June-Dec				41.7						
2015 Jan-May					31.4					77.4
2015 June-Dec					46.0					
2016 Jan-May						35.1				88.4
2016 June-Dec						53.3				
2017 Jan							8.1			
2017 Feb							7.3			
2017 Mar							8.1			
2017 Apr							7.8			
2017 May							8.4			
2017 June							8.5			83.5
2017 July							8.8			
2017 Aug							9.0			
2017 Sept							8.7			
2017 Oct							8.8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								0.8		
2018 Feb								0.7		
2018 Mar								0.8		
2018 Apr								0.8		
2018 May								0.8		
2018 June								0.8		10.0
2018 July								0.9		
2018 Aug								0.9		
2018 Sept								0.9		
2018 Oct								0.9		
2018 Nov								0.8		
2018 Dec								0.8		
2019 Jan									2.4	
2019 Feb									2.2	
2019 Mar									2.4	14.5
2019 Apr									2.4	
2019 May									2.5	
2019 June									2.5	
Total	15.0	22.4	38.5	69.3	77.4	88.4	83.5	10.0	14.5	418.9

* The 2016 RAM schedule above assumes that there is no rate case rate order prior to June 2017, which is likely based on the current HE rate case plans

** 2017-2019 RAM amounts are for illustration purposes only

*** Assume interim D&O in November 2017 incorporating RAM in base rates

B(1) RAM Collections from Customers without Settlement

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*) 88 4	2017 RAM (**) 100	2018 RAM (**) 10	2019 RAM (**) 30	Calendar Year Total
Assumed for Illust										
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3				
2017 Jan						7 2				
2017 Feb						6 4				
2017 Mar						7 2				
2017 Apr						6 9				
2017 May						7 5				
2017 June							8 5			78 9
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								-		
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May								-		
2018 June								0 8		6 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	367 3

B(2) RAM Revenue Recognition without Settlement

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3				
2017 Jan						7 2				
2017 Feb						6 4				
2017 Mar						7 2				
2017 Apr						6 9				
2017 May						7 5				
2017 June							8 5			78 9
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								-		
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May								-		
2018 June								0 8		6 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	367 3

C(1) RAM Collections from Customers with Settlement and Preservation

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
Assumed for Illust						88 4	100	10	30	
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3				
2017 Jan						7 2				
2017 Feb						6 4				
2017 Mar						7 2				
2017 Apr						6 9				
2017 May						7 5				
2017 June							8 5			85 9
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***			(2 2)				5 7			
2017 Dec			(2 2)				5 7			
2018 Jan			(2 2)				5 7	-		
2018 Feb			(2 2)				5 7	-		
2018 Mar			(2 2)				5 7	-		
2018 Apr			(2 2)				5 7	-		
2018 May			(2 2)				5 7	-		
2018 June								0 8		23 5
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	23 2	69 3	77 4	88 4	83 5	10 0	2 5	391 7

C(2) RAM Revenue Recognition with Settlement and Preservation

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May				27 5						69 3
2014 June-Dec				41 7						
2015 Jan-May					31 4					77 4
2015 June-Dec					46 0					
2016 Jan-May						35 1				88 4
2016 June-Dec						53 3				
2017 Jan							8 1			
2017 Feb							7 3			
2017 Mar							8 1			
2017 Apr							7 8			
2017 May							8 4			
2017 June							8 5			83 5
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								0 8		
2018 Feb								0 7		
2018 Mar								0 8		
2018 Apr								0 8		
2018 May								0 8		
2018 June								0 8		10 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan									2 4	
2019 Feb									2 2	
2019 Mar									2 4	14 5
2019 Apr									2 4	
2019 May									2 5	
2019 June									2 5	
	15 0	22 4	23 2	69 3	77 4	88 4	83 5	10 0	14 5	403 7

D(1) RAM Collections from Customers with Settlement (No Preserivation)

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
Assumed for Illust						88 4	100	10	30	
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3				
2017 Jan						7 2				
2017 Feb						6 4				
2017 Mar						7 2				
2017 Apr						6 9				
2017 May						7 5				
2017 June							8 5			78 9
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan							-			
2018 Feb							-			
2018 Mar							-			
2018 Apr							-			
2018 May							-			
2018 June								0 8		6 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	367 3

D(2) RAM Revenue Recognition with Settlement (No Preservation)

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May				27 5						69 3
2014 June-Dec				41 7						
2015 Jan-May					31 4					77 4
2015 June-Dec					46 0					
2016 Jan-May						35 1				88 4
2016 June-Dec						53 3				
2017 Jan			3 1				-			
2017 Feb			2 8				-			
2017 Mar			3 1				-			
2017 Apr			3 0				-			
2017 May			3 2				-			
2017 June							8 5			59 0
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								-		
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May								-		
2018 June								0 8		6 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	367 3

Monthly Factors (Assumed for Illustration)

Jan	8.10%
Feb	7.26%
Mar	8.10%
Apr	7.84%
May	8.44%
Jun	8.47%
Jul	8.77%
Aug	9.04%
Sep	8.68%
Oct	8.78%
Nov	8.26%
Dec	8.26%
	<u>100.00%</u>

Attachment 2 (corrected)
(\$ in millions)

	A(1)	B(1)	C(1)	D(1)
Customer RAM Payments	RAM Collected in RAM Period	RAM Collections without Settlement	RAM Collections with Settlement and Preservation	RAM Collections with Settlement (No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	57	57
2015	77	74	74	74
2016	88	85	85	85
2017 Illustration	83	79	86	79
2018 Illustration	10	6	24	6
2019 Illustration	14	7	7	7
	419	367	392	367

	A(2)	B(2)	C(2)	D(2)
RAM Accruals for Financial Statements	RAM Revenue Recognition in RAM Period	RAM Revenue Recognition without Settlement	RAM Revenue Recognition with Settlement and Preservation	RAM Revenue Recognition with Settlement (No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	69	69
2015	77	74	77	77
2016	88	85	88	88
2017 Illustration	83	79	83	59
2018 Illustration	10	6	10	6
2019 Illustration	14	7	14	7
	419	367	404	367

Case A RAM collection and accrual in the RAM period (calendar year Jan-Dec)

Case B RAM collection and accrual without Settlement (i.e. June 1 - May 31)

Case C RAM collection and accrual with Settlement and Preservation
Beginning 2014, RAM for RAM period = accrual for calendar year
RAM Regulatory Asset amortized and collected upon change in base rates incorporating the RAM
RAM Regulatory Asset collection between date of change in rates to June 1 of following year

Case D RAM collection and accrual based on Settlement (no Preservation)
Beginning 2014 and ending 2016, RAM for RAM period = accrual for calendar year
RAM Regulatory Asset amortized monthly January - May 2017

Attachment 2 - Overview of RAM Collections and Revenue Recognition (corrected)
(\$ in millions)

A(1) RAM Collected in RAM Period (Jan-Dec)										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	Calendar
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Year Total
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	
Assumed for Illustration						88.4	100	10	30	
2011 Jan-May	9.1									15.0
2011 June-Dec	5.9									
2012 Jan-May		13.5								22.4
2012 June-Dec		8.9								
2013 Jan-May			23.2							38.5
2013 June-Dec			15.3							
2014 Jan-May				41.7						69.3
2014 June-Dec				27.5						
2015 Jan-May					46.0					77.4
2015 June-Dec					31.4					
2016 Jan-May						53.3				88.4
2016 June-Dec						35.1				
2017 Jan							8.1			
2017 Feb							7.3			
2017 Mar							8.1			
2017 Apr							7.8			
2017 May							8.4			
2017 June							8.5			83.5
2017 July							8.8			
2017 Aug							9.0			
2017 Sept							8.7			
2017 Oct							8.8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								0.8		
2018 Feb								0.7		
2018 Mar								0.8		
2018 Apr								0.8		
2018 May								0.8		
2018 June								0.8		10.0
2018 July								0.9		
2018 Aug								0.9		
2018 Sept								0.9		
2018 Oct								0.9		
2018 Nov								0.8		
2018 Dec								0.8		
2019 Jan									2.4	
2019 Feb									2.2	
2019 Mar									2.4	14.5
2019 Apr									2.4	
2019 May									2.5	
2019 June									2.5	
	15.0	22.4	38.5	69.3	77.4	88.4	83.5	10.0	14.5	418.9

A(2) RAM Revenue Recognition in RAM Period (Jan-Dec)

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	9 1									15 0
2011 June-Dec	5 9									
2012 Jan-May		13 5								22 4
2012 June-Dec		8 9								
2013 Jan-May			23 2							38 5
2013 June-Dec			15 3							
2014 Jan-May				27 5						69 3
2014 June-Dec				41 7						
2015 Jan-May					31 4					77 4
2015 June-Dec					46 0					
2016 Jan-May						35 1				88 4
2016 June-Dec						53 3				
2017 Jan							8 1			
2017 Feb							7 3			
2017 Mar							8 1			
2017 Apr							7 8			
2017 May							8 4			
2017 June							8 5			83 5
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								0 8		
2018 Feb								0 7		
2018 Mar								0 8		
2018 Apr								0 8		
2018 May								0 8		
2018 June								0 8		10 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan									2 4	
2019 Feb									2 2	
2019 Mar									2 4	14 5
2019 Apr									2 4	
2019 May									2 5	
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	83 5	10 0	14 5	418 9

* The 2016 RAM schedule above assumes that there is no rate case rate order prior to June 2017, which is likely based on the current HE rate case plans

** 2017-2019 RAM amounts are for illustration purposes only

*** Assume interim D&O in November 2017 incorporating RAM in base rates

B(1) RAM Collections from Customers without Settlement

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
Assumed for Illust						88.4	100	10	30	
2011 Jan-May										9.1
2011 June-Dec	9.1									
2012 Jan-May	5.9									19.5
2012 June-Dec		13.5								
2013 Jan-May		8.9								32.2
2013 June-Dec			23.2							
2014 Jan-May			15.3							57.0
2014 June-Dec				41.7						
2015 Jan-May				27.5						73.5
2015 June-Dec					46.0					
2016 Jan-May					31.4					84.6
2016 June-Dec						53.3				
2017 Jan						7.2				
2017 Feb						6.4				
2017 Mar						7.2				
2017 Apr						6.9				
2017 May						7.5				
2017 June							8.5			78.9
2017 July							8.8			
2017 Aug							9.0			
2017 Sept							8.7			
2017 Oct							8.8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								-		
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May								-		
2018 June								0.8		6.0
2018 July								0.9		
2018 Aug								0.9		
2018 Sept								0.9		
2018 Oct								0.9		
2018 Nov								0.8		
2018 Dec								0.8		
2019 Jan								0.8		
2019 Feb								0.7		
2019 Mar								0.8		6.5
2019 Apr								0.8		
2019 May								0.8		
2019 June									2.5	
	15.0	22.4	38.5	69.3	77.4	88.4	43.7	10.0	2.5	367.3

B(2) RAM Revenue Recognition without Settlement

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3				
2017 Jan						7 2				
2017 Feb						6 4				
2017 Mar						7 2				
2017 Apr						6 9				
2017 May						7 5				
2017 June							8 5			78 9
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								-		
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May								-		
2018 June								0 8		6 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	367 3

C(1) RAM Collections from Customers with Settlement and Preservation

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
Assumed for Illust						88 4	100	10	30	
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3				
2017 Jan						7 2				
2017 Feb						6 4				
2017 Mar						7 2				
2017 Apr						6 9				
2017 May						7 5				
2017 June							8 5			85 9
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***			(2 2)				5 7			
2017 Dec			(2 2)				5 7			
2018 Jan			(2 2)				5 7	-		
2018 Feb			(2 2)				5 7	-		
2018 Mar			(2 2)				5 7	-		
2018 Apr			(2 2)				5 7	-		
2018 May			(2 2)				5 7	-		
2018 June								0 8		23 5
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	23 2	69 3	77 4	88 4	83 5	10 0	2 5	391 7

C(2) RAM Revenue Recognition with Settlement and Preservation

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May				27 5						69 3
2014 June-Dec				41 7						
2015 Jan-May					31 4					77 4
2015 June-Dec					46 0					
2016 Jan-May						35 1				88 4
2016 June-Dec						53 3				
2017 Jan							8 1			
2017 Feb							7 3			
2017 Mar							8 1			
2017 Apr							7 8			
2017 May							8 4			
2017 June							8 5			83 5
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								0 8		
2018 Feb								0 7		
2018 Mar								0 8		
2018 Apr								0 8		
2018 May								0 8		
2018 June								0 8		10 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan									2 4	
2019 Feb									2 2	
2019 Mar									2 4	14 5
2019 Apr									2 4	
2019 May									2 5	
2019 June									2 5	
	15 0	22 4	23 2	69 3	77 4	88 4	83 5	10 0	14 5	403 7

D(1) RAM Collections from Customers with Settlement (No Preserivation)

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
Assumed for illust						88 4	100	10	30	
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3				
2017 Jan						7 2				
2017 Feb						6 4				
2017 Mar						7 2				
2017 Apr						6 9				
2017 May						7 5				
2017 June							8 5			78 9
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan							-			
2018 Feb							-			
2018 Mar							-			
2018 Apr							-			
2018 May							-			
2018 June								0 8		6 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	367 3

D(2) RAM Revenue Recognition with Settlement (No Preservation)

	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May										9 1
2011 June-Dec	9 1									
2012 Jan-May	5 9									19 5
2012 June-Dec		13 5								
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2							
2014 Jan-May				27 5						69 3
2014 June-Dec				41 7						
2015 Jan-May					31 4					77 4
2015 June-Dec					46 0					
2016 Jan-May						35 1				88 4
2016 June-Dec						53 3				
2017 Jan			3 1				-			
2017 Feb			2 8				-			
2017 Mar			3 1				-			
2017 Apr			3 0				-			
2017 May			3 2				-			
2017 June							8 5			59 0
2017 July							8 8			
2017 Aug							9 0			
2017 Sept							8 7			
2017 Oct							8 8			
2017 Nov ***							-			
2017 Dec							-			
2018 Jan								-		
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May								-		
2018 June								0 8		6 0
2018 July								0 9		
2018 Aug								0 9		
2018 Sept								0 9		
2018 Oct								0 9		
2018 Nov								0 8		
2018 Dec								0 8		
2019 Jan								0 8		
2019 Feb								0 7		
2019 Mar								0 8		6 5
2019 Apr								0 8		
2019 May								0 8		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	367 3

Monthly Factors (Assumed for Illustration)

Jan	8 10%
Feb	7 26%
Mar	8 10%
Apr	7 84%
May	8 44%
Jun	8 47%
Jul	8 77%
Aug	9 04%
Sep	8 68%
Oct	8 78%
Nov	8 26%
Dec	8 26%
	<u>100 00%</u>