

evsj vṭ`k



†M†RU

AwZwi<sup>3</sup> msL`v  
KZ<sup>©</sup>y KZR.cKwKZ

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en`úwZevi, Rvbgvwi 13, 2011

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[ temi Kvix e`w<sup>3</sup> Ges Ktc<sup>©</sup>i kb KZR Aṭ\_<sup>©</sup> wwbgtq Rvi xKZ. weÁvcb I tbnwUkmg<sup>†</sup> ]

MYcRvZŠy evsj vṭ`k mi Kv  
evsj vṭ`k GbwR<sup>©</sup>i ṭj Uix Kwgkb  
cÁvcb

Zwi L, 15 tcŠI 1417 e½vã/29 wW†m<sup>†</sup> 2010 wL<sup>3</sup>÷vã

Gm, Avi, I bs 408-AvBb/2010|—evsj vṭ`k GbwR<sup>©</sup>i ṭj Uix Kwgkb AvBb, 2003 (2003 mṭbi 13 bs AvBb) Gi aviv 34 Gi DṭI k` ci-YKṭI, evsj vṭ`k GbwR<sup>©</sup>i ṭj Uix Kwgkb, mi Kvṭi i mwnZ Avṭj vPbvṭg, D<sup>3</sup> AvBṭbi aviv 59 G cŌÉ ygZvetj wbgie/c cÁearbgvj v cÁqb Kwij, h\_v t—

1| msivṬ wktivbg I cÁZ<sup>©</sup>|—(1) GB cÁearbgvj v evsj vṭ`k GbwR<sup>©</sup>i ṭj Uix Kwgkb (cŌKwZK M`vm mÁvj b U`wi d) cÁearbgvj v, 2010 bvṭg AwfwnZ nBte|

(2) Bnv Awej ṭ<sup>†</sup>Kvh<sup>†</sup>i nBte|

2| msÁv|—weI q ev cṭṭi ci cŠx ṭKvb wKQybv\_wKṭj, GB cÁearbgvj vq—

- (1) ŌAvBb<sup>ó</sup> A\_<sup>©</sup>evsj vṭ`k GbwR<sup>©</sup>i ṭj Uix Kwgkb AvBb, 2003 (2003 mṭbi 13 bs AvBb);
- (2) ŌKwgkb<sup>ó</sup> A\_<sup>©</sup>AvBṭbi Aaxb cŌZwŌZ evsj vṭ`k GbwR<sup>©</sup>i ṭj Uix Kwgkb;
- (3) ŌMŌnK (Customer)<sup>ó</sup> A\_<sup>©</sup>ṭKvb cŌKwZK M`vm weZiY j vBṭmYx ṭh cŌKwZK M`vm mÁvj b j vBṭmYxi wbKU nBṭZ cŌKwZK M`vm mÁvj b tmev MŌY Kṭi;

- (4) 0U`wi d0 A\_©AvBřbi aviv 2(S) řZ msÁwqZ U`wi d;
- (5) 0U`wi d wmwVDj 0 A\_©c0KwZK M`vm mÁvj b tmevi gj`nvi I Dnv c0qvřMi kZřej x mřřj Z weei Yx;
- (6) 0Zdwmj 0 A\_©GB c0eavbgvj vi mwnZ mřřhwřZ Zdwmj ;
- (7) 0řgř\_vřWj wR (Methodology)0 A\_©AvBřbi aviv 34 Gi Aarb GB c0eavbgvj vi Zdwmřj ewYř c0KwZK M`vm mÁvj řbi U`wi d wbařř Y c×wZ;
- (8) 0di g0 A\_©Zdwmřj Dvj wLZ dig;
- (9) 0 řfv3v (Customer)0 A\_©AvBřbi aviv 2(g) řZ msÁwqZ řfv3v;
- (10) 0j vBřmYř0 A\_©AvBřbi aviv 2(j) řZ msÁwqZ j vBřmYř;
- (11) 0ři řřj wUs G0 wguwris ř÷kb (Regulating & Metering Station)0 A\_©wmiU řMBU ř÷kb (City Gate Station ev CGS), UvDb ewřř ř÷kb (Town Border Station ev TBS), wmw÷ř ři řřj wUs ř÷kb (District Regulating Station ev DRS), A\_ev Kř÷gvi wguwris ř÷kb (Customer Metering Station ev CMS) řh břřgB AwřřwřZ Kiv nDK bř řKb, Ggb GKwU řvcbř hvni 0vi v M`řmi c0qvRbřq Pvc nřm Kiv Ges c0vn cwi gvřci gvařřg—
  - (K) c0KwZK M`vm mÁvj b j vBřmYř KZř Dnvi cřBc j vBb nBřZ řvbřq c0KwZK M`vm mÁvj b j vBřmYř wBKU M`řmi řřj Acřři (Custody transfer) gvařřg c0KwZK M`vm mÁvj b j vBřmYř wBKU mieivn Kiv nq;
  - (L) M`vm wdř KZř c0KwZK M`vm mÁvj b j vBřmYř wBKU A\_ev řřřřgZ c0KwZK M`vm mivmwi mÁvj b j vBřmYř wBKU Abřřcřřřř řřj Acřři gvařřg mieivn Kiv nq; A\_ev
  - (M) c0KwZK M`vm mÁvj b j vBřmYř wBKU nBřZ c0B c0KwZK M`vm weZiY j vBřmYř KZř Dnvi mÁvj b řbUI qvK0e`vq wqřřřř Přřc mieivn wKsev řfv3vi wBKU c0qvRbřq Pvc I c0vřřn mieivn Kiv nq|

3| U`wi d wbařř Y ev cwi eZřřbi Rb` Avře`b I wdm|—(1) AvBřbi aviv 34 Gi weavb Abřřvřq c0KwZK M`vm mÁvj b U`wi d wbařř Y ev cwi eZřřbi Rb` j vBřmYř Kwřkřřbi řPqvi g`řřbi wBKU dig 0K0 řZ Avře`b KwřřřZ cwi ře|

(2) Dc-c0eavb (1) G ewYř Avře`bcřřři mwnZ Kwřkb KZř, mgq mgq, GZ` řřřřk` wbařři Z wdm evsj vř`řki řh řKv Zdwmj x e`řK nBřZ Kwřkřřbi břřg c0E wřgv0 WřdU ev řc-Awřř AvKřři c0vb KwřřřZ nBře|

4| U`wi d wbaŋ Y mspvšl Avte`bcŋi minZ `vlj Ze` `wj j cŋw` |—cŋeavb 3 Gi Aarb U`wi d wbaŋ tYi Rb` Avte`bcŋi `vlj Kwi evi mgq j vBtmYx Dnvi minZ wbgewZ KvMRcŋ I Z\_`w` mshy Kwi te, h\_v t—

- (K) Avte`bcŋi i minZ msthWRZ KvMRcŋi GKwJ Zvj Kv;
- (L) cŋweZ U`wi d wmwDŋj evyZ tmev Kvhŋg i iæ Kwi evi cŋ`vkZ Zwi L;
- (M) th mKj e`v3eŋMP wbKU U`wi d wmwDj tcŋY Kiv nBte Zvnt`i bvg I wKvbv;
- (N) cŋweZ U`wi d tNvl Yv mspvšl Lmov weAwBi GKwJ Abvj w;
- (O) th aiŋbi tmevgr cŋvb Kiv nBte Dnvi msvyB weeiY Ges Zrmspvšl cŋweZ U`wi d;
- (P) U`wi d I U`wi d cwieZŋ m`ŋj Z kZŋj x, jvBtmYx I tfv3v`i gta` m`úw Z PzŋZ h\_vh\_fvte Ašfŋ nBqvŋQ, GB gŋg GKwJ tNvl Yvcŋ;
- (Q) cŋweZ U`wi d wkwDj Abjvqx tj b`b I ivR`^ Avtqi GKwJ cŋ`wj Z wmwve, DnvtZ th gvŋm tmev cŋvb i iæ nBte Zvni Ae`ewZ cieZŋ12 (evi) gvŋm cŋ`q tmev I cŋc` ivR`^ Avtqi 1 (GK) ermŋi gmlqvix cŋ`wj Z wmwvtei Dŋj w\_vkŋte;
- (R) cŋweZ U`wi d wkwDŋj Dvj wLZ tiŋUi wfvE Ges cŋweZ tiU wbaŋ Y mspvšle`vL`v;
- (S) cŋweZ tiUŋK thšv3KZv wetePbvi Rb` Dnv wbaŋ tYi j tŋ` th mKj e`tqi (m`úYŋŋc e`wqZ, ewxRwbZ ev Ab`wea) wmwve Kiv nBqvŋQ, Dnvi we`lwi Z e`vL`v mn GKwJ weei Yx;
- (T) Avte`bKvixi ev Ab` tKvb wqvšZ cŋZŋvŋbi GKB cKvi mAvj b tmev tŋtŋ cŋhvR` U`wi tdi minZ cŋweZ U`wi tdi GKwJ Zŋbvŋj-K weei Yx;
- (U) tmevi we`lwi Z kZŋj xmn, msvkŋ weZiY I tmevi Pzŋmgŋni Abvj w;

5| U`wi d cwieZŋbi Rb` Avte`bcŋi minZ `vlj Ze` `wj j cŋw` |—cŋeavb 3 Gi Aarb U`wi d cwieZŋbi Rb` Avte`bcŋi `vlj Kwi evi mgq j vBtmYx Dnvi minZ wbgewZ KvMRcŋ I Z\_`w` mshy Kwi te, h\_v t—

- (K) Ae`ewZ weMZ 03 (wZb) ermŋi Kvj vbywŋgK eYŋmn cŋweZ U`wi tdi mvi -mstŋc;

- (L) U'wi d cwi eZ#bi c0'itei thSw3 KZv;
- (M) c0'weZ U'wi d wba# tY MpxZ cxiZi we'wi Z weei Y;
- (N) U'wi d cwi eZ#bi dtj c0'weZ nBtZ cvti GBifc e'w3 I c0Z0vtbi mwnZ Avte`bKvixi eZgub m#uK Ges U'wi d cwi eZ#bi ci wKifc m#uK Dme nBtZ cvti Dnv D#j LceR D3 e'w3 eM9 c0Z0vbmgt#ni GKwU Zwj Kv;
- (O) U'wi d cwi eZ#bi tNvI Yv mspv#sI Lmov weAv#i GKwU Abvj wc;
- (P) Ae'ewnZ weMZ 03 (wZb) erm#i i wbi xyZ evrmwi K wnmve weei Yx, Zte m`mgvB A\_erm#i i wnmve wbi xyZ bv nBtj ms`v c0vb KZR. mZ`wqZ wnmve weei Yx;
- (Q) c0'le tckKvj xb Pj wZ erm#i i mvguqK wnmve weei Yx;
- (R) eZgub Aw\_R Ae`v Ges c0'weZ U'wi d cwi eZ#bi dtj fvel`r Aw\_R Ae`vi Zj bvgj-K weei Yx;
- (S) U'wi d cwi eZ#bi c0'le Abjgw`Z bv nBtj m#te` Aw\_R c0'itei we'wi Z weei Y;
- (T) c0'weZ U'wi d Avte`bKvtj i cieZxerm#i i Aw\_R c0`j b;
- (U) Ae'ewnZ 03 (wZb) erm#i i wmt`g j m (system loss) Gi weei Y;
- (V) tmevi we'wi Z kZfej xmn, Avte`bKvixi gtZ c0'le gj`vqtb mrvqK nBtZ cvti GBifc Ab`th tKvb Z\_`|

6| Avte`bcI MhY I cixyv|—(1) c0eavb 3 Gi Aaxb tKvb Avte`bcI c0#Bi AbwaK 30 (wIk) Kg#etmi gta` Kwgkb KZR.MwZ Kwix Mix gj`vqb wJg D3 Avte`bcI cixyv Kwite Ges D3 gj`vqb wJg, c0qvRbteita Avte`bcI c0#Bi AbwaK 7 (mvZ) Kg#etmi gta`, Avte`bcI gj`vqtb i Rb` AwZwi 3 KVMRcI I Z\_`w` wLj Kwievi Rb` Avte`bKvixiK wbt`R c0vb KwitZ cwi te|

(2) Dc-c0eavb (1) Gi Aaxb AwZwi 3 KVMRcI I Z\_`w` c0#Bi ci, Kwix Mix gj`vqb wJg Avte`bcI hvPvB-evQvB ceR Kwgktbi wBKU GKwU gj`vqb c0Zte`b wLj Kwite|

(3) Kwix Mix gj`vqb wJg KZR. wLj KZ.c0Zte`b Kwgktbi mfvq Dc`vcb KwitZ nBte, Ges D3 mfvq Avte`bcI wJg wetePvvi Rb` MpxZ nBtj Avte`bcI wJg mfvi ZwitL Avb0wmbKer#te MpxZ nBqv#Q ewj qv MY` nBte|

(4) c`fweZ U`wi d wkwWDj ev Dnvi Askw`tkl Kwgk`bwi wetePbraxb \_vKvKvtj msukw j vBtmYx D<sup>3</sup> U`wi d wkwWDj ev Dnvi Askw`tkl cwi eZB KwitZ cwi te bv|

7| MYweAwB I tbnwJk c`vb|—(1) c`earb 6 Gi Aaxb tKvb Avte`bcI MpxZ nBtj Kwgkb euj c`Pwi Z `Bw RvZxq `wbK cwI Kvq GZ` m`utK`GKuU MYweAwB c`Kvk Kwit te|

(2) Kwgk`bwi wetePbrq th mg`le`w<sup>3</sup>eM`Avte`bcI `vivi c`fweZ nBtZ cvti, A\_ev hvnivi DnvtZ `f`msukw Ges hvnvt`i w`tkl Avb I `yZv Kwgk`bwi m`vsi M`hY mrvqK nBtZ cvti, Zvnrw M`K Kwgkb GZ` m`utK`GKuU c`vb Kwit te|

(3) Kwgkb wbgewYZ th tKvb GK ev GKwaK c`wZtZ Dc-c`earb (2) G Duj wLZ tbnwJk c`vb KwitZ cwi te, h\_v t—

- (K) evntKi gva`tg nvtZ nvtZ c`vb;
- (L) c`wB `xKvi c`I mn ti wR ÷ w`wvK ev Kwit qvi thvtM tc`Y; Ges
- (M) c`qRbtefta, Ab` th tKvb c`stq c`vb ev tc`Y|

(4) GB c`earbwi Aaxb tKvb e`w<sup>3</sup>tK tbnwJk c`vb KwitZ nBtj, Zvnr D<sup>3</sup> e`w<sup>3</sup>i w`bKU Zvnrvi c`E wKvbvq, A\_ev wZwb ev Zvnrvi c`Zwba th `vtb mrvaviYzt emevm Ktib, A\_ev e`envq cwi Pj bv Ktib, A\_ev A\_`DcvR`bi Rb` KvR Ktib tmB `vtb ev wKvbvq tc`Y KwitZ nBte|

(5) GB c`earbwi Aaxb MYweAwB c`Kvk I tbnwJk c`vbi e`q msukw Avte`bKvix enb Kwit te|

8| tgf\_vfWvj wR (**methodology**) Abjvqx Avte`b gj`vqb|—(1) c`earb 6 Gi Aaxb tKvb Avte`bcI Avb`wmbKfite MpxZ nBevi ci Ges c`earb 7 Gi Aaxb MYweAwB c`Kvk I tbnwJk c`vbi ci Kwgkb Dnvi Kwit Mix gj`vqb wJg `vivi D<sup>3</sup> Avte`b Zdmvtj ewYZ tgf\_vfWvj wR (methodology) Abjvqx gj`vqb Kwit te|

(2) Dc-c`earb 1 Gi Aaxb Avte`bcI gj`vqbi Df`tk` c`qRbxq Z`w` m`M`ni Rb` Kwit Mix gj`vqb wJg Z`s` Ab`v KwitZ cwi te Ges mrvaviYfite Dnvi wetePbrq c`qRbxq th tKvb e`e`v M`hY KwitZ cwi te|

9| MYi vbx I AvcwE|—(1) c`earb 8 Gi Aaxb Avte`b gj`vqbi ci Kwgkb 60 (I w) Kg`e`mi gta`, AvBtbi Aaxb GKwU MYi vbxvi AvtqvRb Kwit te thLv`b msukw mKj cy U`wi d Avte`b m`utK`GKuU I `wv wj K m`y`-c`vY Dc`vcb KwitZ cwi te Ges Zvnrw M`K c`fweZ U`wi d Avte`b m`utK`GKuU Ri v hvBte|

(2) Dc-c`eavb 1 Gi Aaxb MYi bvbxi Rb` msukw KZ`e`y`k Kvgktbi woku wbeWZ nBtZ nBte Ges D<sup>3</sup> wbeWZ cyMY MYi bvbxi AšZ 07 (mvZ) Kg`e em cte` wj wj K mvj` Kvgktbi tiwR÷vi WvK ev Kwi qvi thvM tC`Y Kwi te |

(3) tKvb e`w<sup>3</sup> GB c`eavtbi Aaxb i`bvbxtZ AskM`Y Kwi tZ ev AvciE D`lvc`b B`O`K nBtj A\_ev msukw Avte`b m`u`K`w`f`bg`Z c`Kvk Kwi tZ Pwntj wZwb c`eavb 7 Gi Aaxb MYweÁwB c`Kvk ev tbwUk c`l`v`bi AbwaK 15 (c`bi) Kg`e etmi gta` wR e<sup>3</sup>e` ev gZvgZ `xq `ryi h`y` GKwU gj- I PwiU Abvj`w AvKv`i, Zvvi c`Y`bvg I wKvbn, Zvvi e<sup>3</sup>e` ev gZvgZi Abjktj thw<sup>3</sup>K Kvi Y D`tj L`m`tg wba`wi Z wdmn Kvgktbi woku `wLj Kwi teb |

(4) Dc-c`eavb (3) Gi Aaxb tKvb e<sup>3</sup>e` ev gZvgZ `wLj Kiv nBtj, Kvgkb Dnv ch`fj vPbv Kwi qv t`wLte, Ges Abj`c e<sup>3</sup>e` ev gZvgZ `wLj Kvi x tKvb e`w<sup>3</sup> k, Dch`y gtb Kwi tj, msukw vel t`q GKwU cy` wmvte M`Y Kwi tZ cwi te |

(5) Dc-c`eavb (4) Gi Aaxb AvciE D`lvc`bKvixi Avte`b Kvgkb c`Z`vL`vb Kwi tj D<sup>3</sup> e`w<sup>3</sup> Zvvi e<sup>3</sup>e` ev gZvgZi Abjktj AwZwi 3 Z`-c`wY c`l`vb mvctj`y MYi bvbxtZ AskM`Y Kwi tZ cwi te |

10 | Avte`b c`Z`vL`vb |—(1) Dc-c`eavb 9 Gi Aaxb i`bvb` M`tYi ci Kvgkb wbgew`Z th tKvb GK ev GKwaK Kvi tY msukw U`wi d Avte`b c`Z`vL`vb Kwi tZ cwi te, h\_v t—

- (K) Avte`bKvix Kvgktbi Pwnt`v tgvZvteK wba`wi Z mgqmxgi gta` PwntZ KmRc`I I Z`\_ `wLj Kwi tZ e`\_`nBtj ;
- (L) `wLj KZ.KmRc`I w` ev Z`\_ w`v nBtj ;
- (M) Avte`bKvix evsj v`k`i Ab` tKvb c`w`j Z AvBb f`/2 Kwi tj ;
- (N) AvBb, GB c`eavbgvj v A\_ev Kvgkb KZ`R.c`v`x`Z Ab` th tKvb c`eavbgvj vi Aaxb Avte`bKvixi U`wi d wba`wY ev cwi eZ`bi Rb` Avte`b Kivi AwKvi bv `wKtj |

(2) Dc-c`eavb (1) Gi Aaxb Kvgkb th tKvb Avte`b c`Z`vL`vb Kwi tj Dvvi Kvi Y wj wcx` Kwi te Ges c`Z`vL`v`bi Zwi L nBtZ AbwaK 30 (w`k) Kg`e etmi gta` D<sup>3</sup> c`Z`vL`v`bi vel t`q Avte`bKvix k AewZ Kwi te |

11 | Kvgktbi w`v`š`l` M`Y |—(1) Kvgkb c`eavb 6, 7, 8 I 9 Gi weavb Abjv`ti c``y`c` M`tYi ci, c`eavb 3 Gi Aaxb `wLj KZ.U`wi d wba`wY ev U`wi d cwi eZ` m`v`š`l` Avte`b m`u`K`c`eavb 10 Gi Aaxb Dnv c`Z`vL`vb bv Kwi tj, AbwaK 90 (be`YB) Kg`e etmi gta` w`v`š`l` M`Y Kwi te Ges D<sup>3</sup> w`v`š`l` weÁwB AvKv`i Rvi x Kwi te |

(2) Kvgk`bi Avt`k I wmvšlPevšlewj qv MY` nBte|

(3) msyã tKvb cy Kvgk`bi D³ Avt`k ev wmvšlmútkAewZ nBevi AbwaK 30 (wfk) Kgf etmi gta` Kvgk`bi wBKU Dnv cwePbvi Rb` Avte`b Kwi tZ cwite|

(4) Kvgk`bi mKj Avt`k I wmvšli Abjw Kvgk`bi wBKU nBtZ GZ`jt`k` ygZvcB KgRZf` t`yi I Kvgk`bi mxj tgvni Øviv mZ`wqZ Kwi tZ nBte|

(5) GB c`eavtbi Aaxb c`E tKvb Avt`k ev wmvšli Abjw, Kvgkb KZR, mgq mgq, GZ`jt`k` wbaWi Z wdtmi wwbgtq, th tKvb e`w³tK c`vb Kiv hvBte|

12| U`wi d KvhRi \_wKevi tgq`|—(1) Kvgkb KZR. wbaWi Z U`wi d Z`KZR. c`E Avt`k th Zwi L wbaWi Z nBte tmB Zwi tL KvhRi nBte|

(2) mswk` j vBtmYx ev tKvb cKZ. ywZM`l cy KZR. GB c`eavbgvj vi Aaxb wbaWi Z U`wi d cwePbv ev cwieZfbi Avte`b Kvgkb KZR. Abjgw Z bv nl qv chS, A\_ev Kvgkb t`Ovq U`wi d cwieZB bv Kiv chS, Kvgkb KZR wbaWi Z U`wi d KvhRi \_wKte|

(3) Kvgkb KZR. wbaWi Z U`wi d KvhRi nBevi Zwi L nBtZ mvavi Yfvte cieZx¹² (evi) gvftmi gta` Dnv cwieZfbi Rb` tKvb Avte`bcT wetePZ nBte bv, Zte Kvgkb tKvb wetkl Kvi tY, Kvi Y wj wce× Kwi qv, GBifc cwieZfbi tKvb Avte`b wetePbv Kwi tZ cwite|

13| U`wi d wbaWi Y ev cwieZB mspvšl weÁwB cPvi |—(1) mswk` j vBtmYx c`eavb 11(1) Gi Aaxb Kvgkb KZR. MnZ wmvšl I Rvi xKZ. weÁwBi e`vcK cPviti i e`v Kwi te|

(2) j vBtmYx c`Z`K weZiY j vBtmYxi wBKU Kvgkb KZR Abjgw Z bZb U`wi d ev we`gvb U`wi tdi cwieZB mútkweÁwB t`Y Kwi te, Ges U`wi d cwieZfbi t`t, weÁwBi mnZ we`gvb U`wi d wkwWDj I mshY Kwi tZ nBte|

## Zdimj

[ c0earb 8(1) `be ]

evsj v`k GbwR`i ,tj Uix Kugkb

c0KwZK M`vm mAvj b U`wi d tqt\_vtWvj wR (Methodology)

## 1| mPbv

1.1| c0KwZK M`vm mAvj b U`wi tdi GB tqt\_vtWvj wR (methodology) ev c×wZi Df`k` Ggb GKwU gvb`D c0Z0v Kiv hrvn mAvj b U`wi d wbaft`j j vBtmYx KZR. e`euZ nBte| GKwU wbw`0 c×wZ we`gvb \_vKvi Kvi`j j vBtmYx Zrvni U`wi d cwieZ`bi Avte`tbi m`te` djvdj m`utK`c`teB aviYv jvf KwiZ myg nBte| GKBFvte weZiY j vBtmYx, tfv`3v ev Ab`vb` ^\_`msuk0 cyI Kugkb KZR. U`wi d c0`le cix`yi c0Z GB fveqv Av`vkxj \_vukte th, Kugkb KZR. AbyZ c×wZi gvb tckv`vix`Zji wfvE`Z wBYZ nBqvtQ| GBifc gvb wBYqi dtj Kugkb KgRZMYtK U`wi d Avte`b cix`yi Rb` GKwU wbfP`thvM` wfvE` c0vb Kti| c0KwZK M`vm Kb`Wb`tmU (condensate) cwien`tbi Rb` GKwU c`K U`wi d c×wZ (methodology) \_vukte|

1.2| mAvj b tmev mweivg bv Aweivg nBte Zrvn evQvBtqi m`thvM mAvj b j vBtmYxtK Zrvni c0qvRb Abyv`ti tKBm wfvE`Z c0vb Kiv nBte|

1.3| c0Z`K mAvj b j vBtmYx Zrvni U`wi d mspv`sl wbt`Rvej x c0Kvk Kwi`te, hrvn mKj ct`yi wBKU mnRj f` nBte Ges hrvntZ tmevi tiU, `vqx c0KwZi tKvb PvR`Ges tmev c0vb, tmevi Aemvb, wej`^gvi j, we`t`va w`0`uE`i c0`uqv c0fw` m`utK`h\_vh\_ wbaq l kZ`ej xi D`j` \_vukte|

1.4| c0Z`K c0KwZK M`vm mAvj b j vBtmYx c0KwZK M`vm cwienbKvix mKj ct`yi mwnZ mAvj b Pw`3 m`uv`b Kwi`te Ges cwienbKvix cyMY wbtR`t`i gta`l Abjfc Pw`3 m`uv`b Kwi`te| KwiMix y`wZ (technical loss) ev` w`qv th cwigvY M`vm mieivn Kiv nBte Pw`3`Z Dnvi D`j` \_vukte| Kugkb Dnvi we`tePv`bq th cwigvY h\_vh\_ gtb Kwi`te tmB cwigvY KwiMix y`wZ (technical loss) Abjgv`b Kwi`te|

1.5| mAvj b j vBtmYxi c0Z`K M0nK c0Z gvtm GKwU we`wi Z wej` cvBte|



2| c`KwZK M`vm m`Avj b tmevi tiU

2.1| mvi-mst`yc

2.1.1| GB c`xwZtZ wba`wi Z tiU M`hKt`K `fZg e`tq tmev c`vb Kwi`te, jvBtm`Yxi Rb` Zvnyi mKj cwiPvj b e`q m`zvtbi D`t`tk` ch`fB ivR`^Avtqi m`thvM m`w` Kwi`te, jvBtm`Yxi cwiPvj b e`e`vi m`gMZ Db`qb mvab Kwi`te, Ges w`wb`qtMi Rb` gj-ab AvKl`v Kwi`te| K`÷ Ae m`w`f`f` (cost of service) bvtg Avf`w`Z GKwU c`uqv`i gra`tg GB tiU w`bY`q Kiv nq| gj-Zt m`Avj b tKv`u`v`bxi Rb` c`uqv`Rbxq ivR`t`^t cwi gvY w`mve Kwi`qv w`g`vb ivR`t`^t m`w`Z Dnvi Z`z`bv Kiv nq| AZtci c`h`v`R` K`ti i m`w`Z mg`S`q`ce`R ivR`^e`w`x w`ba`f`Y Kiv nq| w`g`vb ivR`t`^t m`w`Z D`^3 ivR`^e`w`x thvM Kwi`qv thvM`dj`t`K hvPvB e`f`l`e`(Test Year) m`Avj Z M`v`tm`i tgvU BDw`bU msL`v` l`vi v`f`vM Kwi`qv m`Avj b tiU w`ba`f`Y Kiv nq| GB c`uqv`q mKj m`Avj b ev cwi`enb tmevi Rb` Avf`b`e`tiU w`ba`wi Z nq|

2.2| hvPvB e`l`e`(Test Year)

2.2.1| hvPvB e`l`e`(Test Year)GKwU c`u`g`Z (standardized) tgv` h`v`v` tiU w`ba`f`t`Yi Rb` Avf`b`e`Dcv`E` c`vb K`ti | Avt`e`b`Kvix GB tgv`t` i w`f`w`E`t`Z tKv`u`v`bxi Dcv`E` msKj b K`ti | hvPvB e`f`l`e` Dcv`E`i w`f`w`E`t`B K`w`g`k`b`i w`e`t`k`d`Y | w`m`x`v`S`i`M`h`Y m`u`b`w`nq|

2.2.2| hvPvB e`l`e`12 (evi) gv`tm`i GKwU tgv` K`vj h`v`v`i c`Y`%` Dcv`E` w`g`vb i`w`nqv`t`Q| GB tgv` K`vt`j`i msK`uj`Z Dcv`E`i w`f`w`E`t`Z K`w`g`k`b` K`g`R`Z`M`Y` tiU | U`w`i`d` Avt`e`t`bi Aw`\_`R` | A`\_`%`w`ZK w`e`t`k`d`Y ch`f`j`v`P`v` Kwi`qv t`t`L`b` Dnvi KZLw`b h`y`m`z`Z| K`w`g`k`b` Dnvi w`b`K`U` `w`L`j`KZ. m`Avj b U`w`i`d` tiU Avt`e`b`c`f`t`i Rb` 30 R`ly` mgv`c` m`v`c`u`Z`K`Z`g` A`\_`e`r`m`i`t`K` hvPvB e`l`e`w`m`v`t`e` M`h`Y` K`ti | t`h`t`y`t`t` t`K`v`b` m`Avj`b` Avt`e`b`Kvixi ce`c`w`i`Pvj`b` Avf`A`Z`v` b`v`B` t`m`B`t`y`t`t` K`w`g`k`b` GKwU A`\_`e`r`m`t`i`i` m`t`e`f`E`g` c`u`w`j`Z` w`m`ve` w`e`t`e`P`v`v` Kwi`te|

2.3| ivR`^P`w`n`v` (Revenue Requirement)

2.3.1| mvi-mst`yc

2.3.1.1| tKv`b` m`Avj`b` jvBtm`Yx` th` cwi`gvY` Avq` l`vi`v` Zvnyi` cwi`Pvj`b` Ae`v`n`Z` i`w`L`t`Z, w`e`b`t`q`v`t`Mi` Rb`` gj-ab` AvK`o`..Kwi`t`Z` Ges` m`t`e`f`c`wi` M`h`K`t``i` `f`Zg` e`t`q` tmev` c`vb` Kwi`t`Z` m`y`g` Zvny`B` ivR`^P`w`n`v`|

2.3.1.2| wi Uv<sup>3</sup>Ab tiU teR (return on rate base) Ges m`Avj b c`Z`v`b`i tgvU ewl R cwi Pvj b e`tqi mgu`o tgvU ewl R ivR`^Pwn`v |

tgvU ewl R ivR`^Pwn`v = wi Uv<sup>3</sup>Ab tiU teR + tgvU e`q

2.3.1.3| tiU wbi fctYi t`yt`I, K ÷ Ae mwf<sup>3</sup>m (cost of service) bvtg AvfwnZ GKwU c`l`u`qvi gva`tg ewl R ivR`^Pwn`v wbi fcy Kiv nq | ewl R ivR`^Pwn`v hvPvB e`l P Dcv`Ei wfv`E`Z w`b`v`i Z nq | eZgvb ivR`^Pwn`v mwnZ Z`j`bv Kw qv Dnvi mwnZ GKwU ivR`^Pwn`v thvM Kiv nq | ivR`^Pwn`v e`ij`tZ ivR`^Pwn`v AR`b`i Rb` m`Avj b c`Z`v`b`i th cwi gvY AwZwi<sup>3</sup> ivR`^Pwn`v c`l`qvRb Zvrv e`svq | th`n`Z`i`v`R`^Pwn`v I Ki`thvM, ZvB c`Z`v`b`iU hvrv`Z ivR`^Pwn`v AR`b`i c`l`qvRbxq b`u Avq AR`b`i Kw i`Z c`r`i Z`3`4`b` K`i`i c`f`ve KvUvBqv DVvi Rb` ivR`^Pwn`v cwi gvY evov`bv nq Ges Zvrv Kiv nq `O`M`h Avc`O (gross up) d`v`z`i`i gva`tg, hvrv ti`f`v`b`D Kb`f`v`k`b` d`v`z`i`i bvtg AvfwnZ | ivR`^Pwn`v cwi gvY GKevi w`b`v`i Z nBtj , hvPvB e`l P tgvU ivR`^Pwn`v AR`b`i j`t`y` DnvtK eZgvb ivR`^Pwn`v mwnZ thvM Kiv nq | AZtci m`Avj b tiU w`b`v`i Rb` DnvtK hvPvB e`l P m`Avj Z M`v`t`mi tgvU B`D`v`U m`S`L`v `O`vi v f`v`M Kiv nq |

2.3.2| tiU teR ev tKvqvij dvBs A`v`tm`Um (Rate base or Qualifying assets)

2.3.2.1| mvi -mst`yc

2.3.2.1.1| m`Avj b j`v`B`tm`Y`xi tiU teR e`ij`tZ Zvrv i e`e`u`Z I e`e`nv`h`m`v`u`t` i (Used and Useful Assets) AePiqZ gj` Ges ti` ,tj Uix I qv`k`K` K`v`ic`U`v`tj i mgu`o`tK e`svq |

tiU teR = e`e`u`Z I e`e`nv`h`m`v`u`t` i AePiqZ gj` + ti` ,tj Uix I qv`k`K` K`v`ic`U`v`tj

2.3.2.2| e`e`u`Z I e`e`nv`h`m`v`u`t` (Used and Useful Assets)

2.3.2.2.1| GKwU M`vm m`Avj b c`Z`v`b`i w`e`v`gvb m`v`u` 3 (wZb) wU tkY`x`tZ w`e`f`v`<sup>3</sup> t BbU`v`b`v`Rej c`v`U (intangible plant), m`Avj b c`v`U (transmission plant) Ges tRb`v`i`j` c`v`U (general plant) | c`v`U`i h`\_`v`h`\_`w`v`m`ve tKw I m`S`A`v BZ`w` K`v`g`k`b`i Avf`b`v`m`ve c`x`w`Z (hLb c`v`x`Z nBte) Abj`v`qx e`e`u`Z nBte |

2.3.2.2.1.1| BbU`v`b`v`Rej c`v`U Lv`Z, c`Z`v`b` MVb LiP, j`v`B`tm`Y` I AbgvZ M`h`t`Y`i LiP Ges w`e`v`e`a A` `k``gvb c`v`U mg`st`q M`w`Z |

2.3.2.2.1.2| c`KwZK M`vm m`Avj b c`bUi Ašif` m`u` mgr` wbgie`f, h`v t`ifig I f`ig `Zi; c`\_`Zi; AeKvWtgv I Dnvi Dbq`b, m`Avj b cvBc`jvBb, fvj f` t`÷kb, Kgtc`hi t`÷k`bi hšcwZ, ti`\_tj`uS GÜ wgl`wi s t`÷k`bi hšcwZ, M`vm g`wbt`dvi t`÷kb hšcwZ, K`bUij c`v`bj , K`v`\_wW`K c`ÜK`kb hšcwZ, w`M j`w`As I wi`wv`fS (pig launching & receiving) t`÷kb, `w`w I t`Uij K`igD`wb`Kmb (SCADA i.e. Supervisory Control and Data Acquisition & Telecommunication) hšcwZ, h`vbe`nb, w`wi s Ges Ab`vb` msik`o hšcwZ|

2.3.2.2.1.3| t`Rb`ti`j c`bUi Ašif` m`u` mgr` wbgie`f, h`v t` Awdm AeKvWtgv`i f`ig I f`ig `Zi; AeKvWtgv I Dnvi Dbq`b, h`vbe`nb, w`wi s, Awdm Avmevec`I I hšcwZ, c`wi`enb hšcwZ, f`wi hšcwZ, hš`i(tool), j`ve`ti`Uix hšcwZ, w`e`y` P`vij`Z hšcwZ, `e`y`ZK AvDU t`÷kb, t`Rb`ti`Ui, t`h`v`th`M hšcwZ, w`e`ea hšcwZ Ges Ab`vb` `k`g`vb m`u` |

2.3.2.2.2| b`Zb m`u` h`Lb e`e`u`Z ev`e`nh`n`Bte` ZLb Dnv`ti`U` w`ba`fi`t`Yi D`f`i`k` m`u` g`j`v`q`bi Ašif` n`Bte, Ges Dnvi c`KZ.msM`h e`q`g`j` Dnvi g`j`i`f`c` w`ba`fi`Z` n`Bte|

2.3.2.2.3| AePq` GK`u` c`u`qv` h`i`v`iv` AePq`th`M` m`u`t`i` c`KZ.g`j`i`k` b`xU` m`v`j`f`R` f`v`j`y` (net salvage value) mgš`q` ce`R, GK`u` w`b`q`v`b`M` I t`h`w`K` Dcv`t`q` D<sup>3</sup> m`u`t`i` `f`w`e`K` e`en`v`i`v`c`th`M`x` Av`q`v`t`j`i` Dci`e`U`b` K`wi`q`v` t`l`q`v`n`q`|

2.3.2.2.3.1| m`st`h`v`Rb` I Dbq`b`i` (addition and improvement) c`KZ.msM`h e`q` msik`o` m`Avj`b` c`bUi` (plant) w`eci`x`Z` w`m`ve`f`y` Kiv`n`Bte| t`K`vb` m`Avj`b` c`bU` m`u`t`i` `f`w`e`K` K`v`h`y`g`Z`v` t`j`v`c` cv`B`t`j` , b`xU` m`v`j`f`R` f`v`j`y` (net salvage value) e`Z`i`Z, Ac`m`vi`Y` e`q`m`n` c`y`x`f`Z` AePq` w`i`R`v`f`P` w`eci`x`Z` Dnvi c`KZ.msM`h e`q` mgš`q` K`wi`t`Z` n`Bte| i`y`v`te`y`Y, t`g`i`v`g`Z` I t`Q`v`L`v`U` w`R`w`b`t`mi` c`Z`v`cb` e`q` c`wi`P`v`j`b` e`t`q`i` Ašif` n`Bte|

2.3.2.2.3.2| U`w`i`d`ti`U` c`v`q`b`i` Rb` c`Z`o`v`b`i` w`m`ve`i`y`t`Yi` D`f`i`k`` m`Kj` Rb`Dc`th`M` c`Z`o`v`b` m`u`t`i` t`y`t`I` t`÷BU` j`v`Bb` AePq` c`x`u`Z` (straightline depreciation method) c`q`q`M` Kiv`K`w`kb` Avek`K` g`t`b` K`ti`| m`u`t`i` e`en`v`i`v`c`th`M`x` ev` c`g`Z` Av`q`v`j` ersj t`k` GK`v`D`w`U`S` ÷`v`Ü`w`<sup>®</sup> (Bangladesh Accounting Standard) Ges K`w`kb` t`h`i`f`c` w`i` K`wi`te` t`m`B`i`f`c` AePq` Z`d`w`j` Ab`j`v`q`x` w`ba`fi`Z` n`Bte|

2.3.2.2.3.3|  $\bar{v}qx$  m $\acute{u}$ t`i eZgvb ek f`vj`j (book value) Dci w`iKZ. AePq LiP wnmvte tgvU e`tqi Ašf<sup>9</sup> nBte, Ges m $\acute{u}$ ` gj`vq`tbi cieZi<sup>9</sup>Kiv mstkratbi wfiE`Z Dnvi clyg<sup>9</sup>vqb nBte bv|

2.3.2.2.3.4| U`wid cwieZ<sup>9</sup>bi Rb` Avte`b Kwievi mgq c<sup>0</sup>KwZK M`vm mAvj b jvBtmYxi wbgew<sup>9</sup>Z Z` m $\acute{u}$ ij Z GKwU Zdmj `wLj Kwi te, h\_v t m $\acute{u}$ t`i cKZ.msMh e`q, cYxfZ AePq, AePq eve` nwm Kivi ci m $\acute{u}$ t`i bxU gj`, Ges hvPvB e`tP Rb` U`wid titUi Avte`bc<sup>1</sup> th cwigvY AePq Ašf<sup>9</sup> Kiv nBte|

### 2.3.2.3| ti<sub>u</sub> t<sub>j</sub> Uix I qwk<sup>9</sup> K`wcvUj (regulatory working capital)

#### 2.3.2.3.1| mvi-mstjyc

2.3.2.3.1.1| tiU teR (rate base) Gi mefkl c<sup>0</sup>vb Dcv`vb ti<sub>u</sub> t<sub>j</sub> Uix I qwk<sup>9</sup> K`wcvUj (regulatory working capital)| mAvj b jvBtmYxi U`wid tiU cwif<sup>1</sup>bvq  $\bar{0}$ ti<sub>u</sub> t<sub>j</sub> Uix I qwk<sup>9</sup> K`wcvUj  $\bar{0}$  K\_v mvariY wnmve weAv<sup>1</sup>tbi  $\bar{0}$ I qwk<sup>9</sup> K`wcvUj  $\bar{0}$  K\_v nBtZ wfbwA\_<sup>9</sup>enb Kti| ti<sub>u</sub> t<sub>j</sub> Uix I qwk<sup>9</sup> K`wcvUj ewj tZ eSvq, jvBtmYxi `b<sup>1</sup> b cwi Pvj b e`q wbe<sup>1</sup>ni Rb` A\_<sup>9</sup>thvMvb t` l qvi c<sup>0</sup>vm Ges c<sup>0</sup>U-ein<sup>9</sup>fZ weifb<sup>9</sup>cKv<sup>1</sup>i wewtq<sup>1</sup>M hrvv jvBtmYxi Pj gvb cwi Pvj b Ae`vNZ ivLvi Rb` c<sup>0</sup>qvRbxq| cKZc<sup>1</sup>y, Bnv jvBtmYxi `rfweK cwi Pvj b Znvej hrvvi tRi gvm nBtZ gvmvš<sup>1</sup>i Pvj tZ v<sup>1</sup>k|

2.3.2.3.1.2| Bnv bM` Pj wZ gj-ab (cash working capital), gvj vgvj I mieiv<sup>1</sup>ni gl R<sup>1</sup>y gj` (materials and supplies inventory) Ges tKvb AwM<sup>9</sup> c<sup>0</sup>E A\_<sup>9</sup>wk<sup>1</sup>tj Dnvi mgw<sup>0</sup>|

mAvj b ti<sub>u</sub> t<sub>j</sub> Uix I qwk<sup>9</sup> K`wcvUj = bM` Pj wZ gj-ab + gvj vgvj I mieiv<sup>1</sup>ni gl R<sup>1</sup>y gj` + AwM<sup>9</sup> c<sup>0</sup>E A\_<sup>9</sup>

#### 2.3.2.3.2| bM` Pj wZ gj-ab (Cash Working Capital)

2.3.2.3.2.1| bM` Pj wZ gj-ab ewj tZ eSvq, tmev c<sup>0</sup>v<sup>1</sup>tbi Rb` hLb nBtZ A\_<sup>9</sup>e`tqi c<sup>0</sup>qvRb ZLb nBtZ, tmevi wewgtq hLb A\_<sup>9</sup>cvl qv hvBte ZLb ch<sup>1</sup> tgqv` Kv<sup>1</sup>tj cwi Pvj b e`q wbe<sup>1</sup>ni, bM` tR<sup>1</sup>i i NvUwZciY Ges Abj<sup>1</sup>c Ab`vb` c<sup>0</sup>qvRbxqZv ci<sup>1</sup>Yi Rb` c<sup>0</sup>qvRbxq A\_<sup>9</sup>thvMvb|

2.3.2.3.2.2| m<sup>1</sup> Abj<sup>1</sup>qx, 1 (GK) erm<sup>1</sup>i i cwi Pvj b I i<sup>1</sup>yYte<sup>1</sup>Y e`tqi 1/4 Ask (tgvUgvw 90 w`tbi e`tqi cwi gvY) jvBtmYxi bM` Pj wZ gj-ab v<sup>1</sup>k<sup>1</sup>te| mg<sup>1</sup>Zvte cwi Pvj Z `rfweK GKtPwUqv (natural

monopoly) e`emvi tytI, GB wmwte tmevi wewbgtq A\_c0mBi cteB tmevi Rb` Li tPi Mo wmwte wYq Kiv nq hrvn tmevi wewbgtq A\_c0mBi cte`cwi Pvj tbi Rb` j vBtmYxtK e`q Kwi tZ nBte|

bM` Pj wZ gj-ab= 1/4 x (ewl R` cwi Pvj b l i yYrteyY e`q)

2.3.2.3.3| **gvj vgvj l mieivtni gl Rÿ gj` (Materials and Supplies Inventory)**

2.3.2.3.3.1| **gvj vgvj l mieivtni gl Rÿ (Materials and Supplies)** ewj tZ eSvq tmev c0v tbi Rb` `bw`b Pwv`v ci-YKtI j vBtmYxi c0qvRbxq gvj vgvj l mieivtni gj` (Materials and Inventory value)|

2.3.2.3.3.2| GB DtI tK, hvPvB e tI`gvj vgvj l mieivtni tgvU g t j` i 1/4 e`eüZ nq|

gvj vgvj l mieivtni gl Rÿ gj`=(gvj vgvj l mieivtni evi gv tmi tgvU gj`)÷4

2.3.2.3.4| **AwMöj c0vb (Prepayants)**

2.3.2.3.4.1| th mg tqi Rb` c0hrR` tmB mg tqi cte`tKvb A\_c0vb Kiv nBtj Zrvn tK AwMöj c0vb etj | AwMöj fvov, exgv l Ki BZ`w` Bnvi Ašif` | gl Rÿ gvj vgvj l mieivtni tytI Dcti ewYZ gvb`D Abjvqx mvavi YZt Bnvi cwi gvY wYxZ nq|

2.3.2.3.4.2| Mo gwmK cwi gvY wYxqi Rb` GKwaK hvPvB e tI` Z` wetePbv Kwi tZ nBte| KviY, tKvb tKvb AwMöj e`q (thgb, AwMöj c0E exgvi wKw`l) c0qkt GK erm t i i Awak mg tqi Rb` nBqv \_v tK| tKvb GKK Lv tZi AwMöj c0vb hZ `xN`mg tqi Rb` nDK bv tKb, AwMöj c0E A\_mgr thvM Kwi qv hvPvB e tI` Rb` Dnvi Mo wbañY Kwi tZ nBte| D`vniY ` t f c, tKvb hvPvB e tI` h w` exgvi A\_3 (wZb) erm t i i Rb` AwMöj cwi tKva Kiv nq, Zrvn nBtj c0E tgvU cwi gvY tK 3 (wZb) Øviv fvM (÷) Kwi qv fvM dj U`wi d ti U wbañ tYi DtI tK` ewl R` AwMöj c0vb Lv tZ thvM Kwi tZ nBte| GB cwi gvY tK 4 (Pvi) Øviv fvM (÷) Kwi qv c0E AwMöj tK ti \_tj Uix l qmK`K`w cUv t j Ašif` Kwi tZ nBte|

2.3.2.3.4.3| c`E AwM` AvqKi GKw AwM` c`vb (Prepayments) hrvv ti ,tj Uix l qwk` K`vcUvj -Gi Ašf` Kiv nq| Avg` vbxKZ.c`Y`i Pj vb g`i Dci vba`iZ nvti AwM` AvqKi c`vb Kiv nq, Ges `TgvmK w`vE`Z mi Kvi`K c`vb Kiv nq| ti ,tj Uix l qwk` K`vcUvj -Gi cwi gv`Yi t`y`T j vBtm`Yxi AwM` cwi `kwaZ AvqKti i GKw Ask Ašf` nBte| ti ,tj Uix l qwk` K`vcUvj -G Ašf` Kwi evi Rb`, j vBtm`Yxi hvPvB e`l`cwi `kwaZ AwM` AvqKti i 1/4 Ask thvM nBte|

### 2.3.3| ti U Ae wi UvY`Ab A`v`tmUm (Rate of Return on Assets)

#### 2.3.3.1| mvi -mst`yc

2.3.3.1.1| tKvqvj dvBs m`u` (qualifying assets) ev ti U tet`Ri Dci m`Avj b j vBtm`Yxi ti U Ae wi UvY` (transmission rate of return) gj-a`bi fwi Z Mo e`q (weighted average cost of capital) wnmvte vbtg` m` Abjvqx vbY` Kiv nBte t

$$ti\ U\ Ae\ wi\ UvY\ = \frac{[(BK\ Bw\ gj-ab \times BK\ Bw\ i\ wi\ UvY\ kZKiv\ nvi) + (FY\ gj-ab \times F\ i\ m\ i\ kZKiv\ nvi)]}{(BK\ Bw\ gj-ab + FY\ gj-ab)}$$

thLv`b t

`BK`Bw kZKiv nvi` nBt`ZtQ tKv`vbx` BK`Bw gj-a`bi Dci ti U Ae wi UvY` (rate of return) hrvv cieZ`Abj`Q` e`Y` c`wZ Abjv`ti vbY` Kiv nq|

Q`f`Yi kZKiv nvi` nBt`ZtQ FY gj-a`bi m`i nvti i wnmveKZ. fwi Z gj` (weighted value) hrvv BK`Bw i Dci ti U Ae wi UvY`m`u`kZ Abj`Q` i cieZ` Abj`Q` Abjvqx vbY` Kiv nq|

#### 2.3.3.2| wi UvY`Ab BK`Bw (Return on Equity)

2.3.3.2.1| BK`Bw gj-a`bi Dci ti U Ae wi UvY` (rate of return) BK`Bw i fwi Z Mo (weighted average of equity) wnmvte vbtg` m` Abjvqx vbY` nBte t

$$BK\ Bw\ i\ wi\ UvY\ kZKiv\ nvi\ = \frac{[(Kgb\ \div\ K\ cwi\ gvY\ \times\ j\ f\ vs\ i\ k\ i\ nvi) + (Ae\ k\ o\ BK\ Bw\ i\ cwi\ gvY\ \times\ bb\ -\ \div\ K\ ti\ U)]}{(Kgb\ \div\ K\ cwi\ gvY\ +\ Ae\ k\ o\ BK\ Bw\ i\ cwi\ gvY)}$$

2.3.3.2.2| Kgb `K`i (common stock) t`y`T, hvPvB e`l`cwi `kwaZ Kgb `K`i cwi gvY`K hvPvB e`l`c`E me`kl j f`vs`ki nvi `v`v`Y Kiv nq|

2.3.3.2.3| m`Avj b j vBtm`Yxi vbKU we`gvb Ae`k` BK`Bw i t`y`T, h` Dnv mi Kvti i gvj Kvbvaxb nq, Zvvn nBtj mi Kvti i f`Yi nvi e`e`Z nBte|

2.3.3.2.4| mi Kvfi i m<sup>u</sup>Y<sup>e</sup>ev AvsikK gwj Kvbox j vBtmYxi t<sup>y</sup>t<sup>i</sup>, Aekó BKBUi K ÷ Ae K<sup>w</sup>Uvj (cost of capital) mi Kvfi i K ÷ Ae K<sup>w</sup>Uvj i mgvb nBte| tiU wbañ t<sup>y</sup>i D<sup>i</sup>t<sup>k</sup>, tK<sup>o</sup> xq e<sup>v</sup>st<sup>k</sup>i wj vg Abgvti, `B ermi tgv<sup>x</sup> evsj v`k tURvix w<sup>t</sup>j i Rb<sup>o</sup> m<sup>v</sup>c<sup>o</sup>ZKZg tURvix w<sup>t</sup>j i wj vg tiU e<sup>e</sup>üZ nBte| hw<sup>o</sup> hvPvB el<sup>o</sup>Pj vK<sup>t</sup>j tKvb wj vg bv nBqv \_vtK, Zvrv nBtj hvPvB e<sup>t</sup>l<sup>o</sup> c<sup>t</sup>e<sup>o</sup>me<sup>f</sup>kl GB RvZxq wj vtgi th tiU w<sup>e</sup>g<sup>v</sup>b w<sup>o</sup>J Zvrv e<sup>e</sup>nv<sup>i</sup> Kwi tZ nBte|

2.3.3.2.5| hw<sup>o</sup> j vBtmYx temi Kvix gwj Kvbox m<sup>Á</sup>vj b tKv<sup>u</sup>v<sup>b</sup>x nq hvrv<sup>i</sup> t<sup>y</sup>t<sup>i</sup> K<sup>u</sup>gk<sup>t</sup>bi c<sup>o</sup>leavb c<sup>o</sup>h<sup>v</sup>R<sup>o</sup>, Zvrv nBtj Aekó BKBU tiU w<sup>b</sup>g<sup>e</sup>w<sup>Y</sup>Z Avtj vPbv Abjvqx w<sup>b</sup>Y<sup>x</sup>Z nBte|

2.3.3.2.6| wi UvY<sup>o</sup>Ab BKBU (return on equity) w<sup>b</sup>Y<sup>o</sup>q K<sup>u</sup>gk<sup>b</sup> K<sup>w</sup>Uvj A<sup>v</sup>t<sup>m</sup>U c<sup>o</sup>B<sup>u</sup>ms g<sup>t</sup>Wj (Capital Asset Pricing Model, CAPM) c<sup>w</sup>uZ<sup>t</sup>K AM<sup>o</sup>kaKvi c<sup>o</sup>v<sup>b</sup> K<sup>t</sup>i | Bnv<sup>t</sup>Z awi qv t<sup>b</sup>l qv nq th, K ÷ Ae BKBU gj-ab nBj S<sup>w</sup>Kg<sup>y</sup> tiU Ae wi UvY<sup>o</sup>Ges w<sup>e</sup>b<sup>t</sup>q<sup>w</sup>MKvi x<sup>t</sup> i<sup>t</sup>K g<sup>v</sup>t<sup>K</sup> w<sup>i</sup> t<sup>i</sup> (market risk) y<sup>w</sup>Zc<sup>i</sup>t<sup>y</sup>i Rb<sup>o</sup> c<sup>o</sup>E wi UvY<sup>o</sup> mgw<sup>o</sup>| Bnv m<sup>v</sup>avi Y<sup>f</sup>v<sup>t</sup>e ð<sup>t</sup>eU<sup>v</sup>ó (Beta) b<sup>v</sup>t<sup>g</sup> Av<sup>f</sup>w<sup>n</sup>Z | m<sup>v</sup>g<sup>w</sup>M<sup>k</sup> g<sup>v</sup>t<sup>K</sup> w<sup>i</sup> UvY<sup>o</sup> (market return) m<sup>w</sup>n<sup>Z</sup> ÷ K wi UvY<sup>o</sup> (stock return) th c<sup>w</sup>i g<sup>v</sup>Y DV<sup>v</sup>b<sup>v</sup>g<sup>v</sup> K<sup>t</sup>i ð<sup>t</sup>eU<sup>v</sup>ó Zvrv w<sup>b</sup>t<sup>o</sup> R<sup>o</sup> K<sup>t</sup>i | GK<sup>r</sup>b j vBtmYxi ÷ t<sup>k</sup>i AZ<sup>x</sup>Z wi UvY<sup>o</sup>g<sup>r</sup> (stock's historical returns) g<sup>v</sup>t<sup>K</sup> w<sup>i</sup> UvY<sup>o</sup> m<sup>w</sup>n<sup>Z</sup> Z<sup>j</sup>b<sup>v</sup> Kiv nq Ges S<sup>w</sup>k<sup>i</sup> c<sup>w</sup>i g<sup>v</sup>Y w<sup>b</sup>a<sup>o</sup>i Z nq|

2.3.3.2.7| U<sup>w</sup>i d tiU c<sup>w</sup>i e<sup>Z</sup>f<sup>b</sup>i Rb<sup>o</sup> Av<sup>t</sup>e<sup>o</sup> bKvix j vBtmYxi `w<sup>q</sup>Z<sup>i</sup> nBte BKBUi Dci GKU tiU Ae wi UvY<sup>o</sup>c<sup>o</sup>te Kiv Ges D<sup>3</sup> BKBU ti t<sup>i</sup>Ui h<sup>v</sup>\_Z<sup>v</sup> c<sup>o</sup>g<sup>v</sup>t<sup>y</sup>i j t<sup>y</sup> ch<sup>o</sup>B Z<sup>o</sup> c<sup>o</sup>g<sup>v</sup>Y Dc<sup>o</sup>v<sup>b</sup> Kiv | K<sup>u</sup>gk<sup>b</sup> Dnvi Kg<sup>r</sup>Z<sup>o</sup> i w<sup>e</sup>t<sup>k</sup> t<sup>y</sup>i w<sup>f</sup>v<sup>e</sup>t<sup>z</sup> Ges MY<sup>i</sup> b<sup>v</sup>b<sup>t</sup>z Dc<sup>o</sup>w<sup>c</sup>Z mKj m<sup>v</sup>y<sup>o</sup>-c<sup>o</sup>g<sup>v</sup>Y ch<sup>o</sup>j vP<sup>b</sup>v<sup>t</sup>g D<sup>3</sup> BKBU tiU w<sup>b</sup>a<sup>o</sup>ñ Y Kwi t<sup>e</sup>|

2.3.3.2.8| BKBUi Dci wi UvY<sup>o</sup>w<sup>b</sup>a<sup>o</sup>ñ t<sup>y</sup>i Ab<sup>o</sup>v<sup>o</sup> c<sup>w</sup>uZ nBj w<sup>w</sup>mKvD<sup>t</sup>UW K<sup>v</sup>k t<sup>d</sup> (discounted cash flow), w<sup>i</sup> c<sup>o</sup> w<sup>c</sup>g<sup>o</sup>q<sup>g</sup> A<sup>v</sup>t<sup>o</sup>c<sup>o</sup>p (risk premium approach) Ges Kg<sup>t</sup>c<sup>o</sup>q<sup>t</sup>e<sup>j</sup> Aw<sup>b</sup>s<sup>o</sup>m A<sup>v</sup>t<sup>o</sup>c<sup>o</sup>p (comparable earnings approach)|

2.3.3.2.8.1| w<sup>w</sup>mKvD<sup>t</sup>UW K<sup>v</sup>k t<sup>d</sup> (discounted cash flow) nBj f<sup>w</sup>e<sup>l</sup> t<sup>z</sup> tKvb ÷ t<sup>k</sup>i th gj<sup>o</sup> cvl qv hv<sup>t</sup>e Dnvi e<sup>Z</sup>g<sup>v</sup>b gj<sup>o</sup>g<sup>v</sup>b | GB c<sup>w</sup>uZ c<sup>o</sup>q<sup>v</sup>t<sup>o</sup>Mi R<sup>w</sup>Uj Zv GB th, Bnv<sup>t</sup>Z w<sup>e</sup>b<sup>t</sup>q<sup>w</sup>MKvi xi c<sup>o</sup>Z<sup>o</sup>v<sup>k</sup>v Abjvqx GKU gj<sup>o</sup> w<sup>b</sup>a<sup>o</sup>ñ Y Kwi tZ nq | hw<sup>o</sup> j vBtmYxi ÷ K c<sup>o</sup>k<sup>v</sup>t<sup>k</sup> tK<sup>b</sup>v-<sup>t</sup>e<sup>p</sup>v bv nq A<sup>o</sup>ev bZ<sup>b</sup> tK<sup>b</sup>v-<sup>t</sup>e<sup>p</sup>v nq, Zvrv nBtj Bnv GKU avi Y<sup>v</sup>-w<sup>b</sup>f<sup>o</sup> (subjective) w<sup>w</sup>x<sup>v</sup>š<sup>o</sup> nBqv c<sup>o</sup>|

2.3.3.2.8.2| wi<sup>-</sup> w`c`gqvg (risk premium) c`xwZl GKwU mPivPi e`euZ c`xwZ| BnvtZ awi qv j l qv nq th, BKBUJi tiU Ae wi UvY`F`Yi tiU Ae wi UvY` A`c`y`v tekx nBte| K`÷ Ae BKBUJ (cost of equity) nBj `xN`fgqv`x tWW K`÷ Ges wi<sup>-</sup> w`c`gqvtgi mgw`| wi<sup>-</sup> w`c`gqvg wbafl Yl AZxZ ÷K ti K`tW`P w`f`v`E`tZ nBqv \_vtK|

2.3.3.2.8.3| Kg`tc`qv`tiej Awb`sm A`v`c`P (comparable earnings approach) c`xwZ`tZ Ab`vb` j vB`tm`Y`xi GKwU M`ac bgyv msM`pxZ nq Ges BKBUJ wi Uv`Y`P Dci GKwU th`SMK tiU (composite rate) wbafl Y Kwi qv j vB`tm`Y`x KZ`R c`O`le tck Kiv| GB t`y`t`I, GKBi`fc BKBUJ tiU Kv`h`a`v`i`v`i ti KW`q(records of similar equity rate proceedings) Ges dj v`d`t`j i c`O`qv`Rb nq|

2.3.3.2.9| K`w`g`k`b D`w`j m`L`Z m`K`j c`xwZ`tZ B U`v`i`d A`v`e`b w`e`te`P`bv Kwi`te Z`te S`u`k`g`y` tiU Ae wi UvY`Ges evRvi S`u`k`i (market risk) w`e`te`P`bv`q, K`w`c`U`v`j A`v`t`m`U c`O`B`ms g`t`W`t`j i (Capital Asset Pricing Model) Ab`j`f`c c`xwZ`t`K AM`O`a`K`v`i c`O`vb Kwi`te| tiU Ae wi UvY`c`O`Z`O`v ms`m`v`š`i w`e`l`q`w` c`O`y`Y Kivi `w`q`Z`j vB`tm`Y`xi Dci e`Z`B`te|

2.3.3.2.10| tiU cwi e`Z`P`bi Rb` A`v`e`b`K`v`i`x m`A`v`j b j vB`tm`Y`xi `w`q`Z`j nBte bb-÷K BKBUJi Dci GKwU tiU Ae wi UvY`c`O`le Kiv Ges D<sup>3</sup> ti`t`U`i h`\_`v`\_`Z`v c`O`y`Y`i j`t`y`` ch`P` Z`\_`c`O`y`Y Dc`v`cb Kiv| K`w`g`k`b D`n`v`i K`g`R`Z`P``i w`e`t`k`i`t`Y`i w`f`v`E`tZ Ges MYi b`v`b`t`Z Dc`w`c`Z m`K`j m`v`y``-`c`O`y`Y ch`P`j v`P`b`v`m`t`g D<sup>3</sup> BKBUJ tiU wbafl Y Kwi`te| Av`s`u`k`K mi Kwi g`w`j K`v`b`v`a`x`b j vB`tm`Y`xi Rb`, m`A`v`j b c`O`Z`O`t`bi D`ch`y` I Ab`t`g`w` Z m`z`w`i`t`ki Ae`Z`g`v`t`b, K`w`g`k`b t`K`e`j`g`v`I h`v`P`v`B e`t`l`A`b`y`O`Z `B` ermi t`g`q`v`x t`b`v`t`U`i m`v`c`O`Z`K`Z`g t`U`R`v`i`x w`e`t`j`i w`b`j`v`g tiU M`h`Y Kwi`te| h`v`P`v`B e`t`l`O`t`K`v`b w`b`j`v`g Ab`y`O`Z b`v` n`B`q`v`\_`w`k`t`j`, h`v`P`v`B e`t`l`P` c`t`e`m`e`f`k`l Ab`y`O`Z D<sup>3</sup> i`f`c w`b`j`v`t`g th nvi w`e`v`g`b`w`Q`j Z`v`r`v` e`e`u`Z` n`B`te|

2.3.3.3| wi UvY`Ab tWU (Return of Debt)

2.3.3.3.1| FY gj-a`t`bi m`t`j`i n`v`t`i`i f`w`i`Z` g`j` (weighted value) Gi Dci wi UvY`q`i`U w`b`t`g`e` m`f`- Ab`j`v`q`x w`b`Y`x`Z nBte t

$$F`Y`i` m`t`j`i` n`v`i` % = \frac{[(\text{`xN`fgqv`x FY} \times F`Y`i` m`t`j`i` n`v`i) + (t`c`O`w`W` ÷ K` c`w`i`g`v`y` \times f`v`st`k`i` n`v`i)]}{(\text{`xN`fgqv`x FY} + t`c`O`w`W` ÷ K` c`w`i`g`v`y)}$$

2.3.3.3.2| h`w` w`f`b`w`f`b`e`m`t`j`i` n`v`t`i`i A`t`b`K`\_`w`j `xN`fgqv`x FY \_vtK, A`\_`ev w`f`b`w`f`b`e`j f`v`st`k`i` n`v`t`i`i A`t`b`K`\_`w`j t`c`O`w`W` ÷ t`k`i (preferred stock) B`m`y`\_`v`t`K, Z`v`r`v` n`B`t`j c`O`Z`K t`k`Y`xi Rb` GKBi`fc f`w`i`Z` e`q (weighted cost) w`m`v`e Kwi`t`Z nBte|



2.3.3.3.3| `xN<sup>o</sup> tgqv`x F`Yi nvti t`y`f`I, m`uY<sup>o</sup> mi Kwi gwj Kvbvxb c`Z`vbmgn- evsj v`k mi Kvi KZK c`q`MKZ.F`Yi nvi e`envi Kwi te, GgbwK FY Znvej (Loan funds) h`v`vZv ms`vi vbg`Zi nvti FY nB`Zi msM`xZ nBqv`v`K|

2.3.3.3.4| GB wmvte F`Yi e`Kqv cwi gvY (ev Acwi tkwaZ cwi gvY) e`euZ nBte, F`Yi Avmj cwi gvY b`tn|

2.3.3.3.5| Avte`bKvix c`Z`v`b `xN<sup>o</sup>tgqv`x F`Yi GKwU mvi-mst`yc c`vb Kwi te, hvntZ vbgewYZ weiqmg`ni D`j`L`\_wKte, h\_v t D<sup>3</sup> `xN<sup>o</sup>tgqv`x F`Yi Drm I Zwi Lmn gj- F`Yi cwi gvY, c`x`f`Z gj- FY cwi tkvtai cwi gvY, hvPvB e`f`I`P` th tgqv` FY c`hvR` vQj tmB tgqv`, m`j` i nvi, hvPvB e`f`I` cwi tkwaZ m`j` i cwi gvY, hvPvB e`f`I` cwi tkwaZ gj- F`Yi cwi gvY Ges hvPvB e`f`I` ce`Zx<sup>o</sup> A\_`erm`ti cwi tkwaZ m`j` i cwi gvY|

2.3.3.4| I fvi Aj tiU Ae wi UvY<sup>o</sup> (Overall Rate of Return)

2.3.3.4.1| GB Abt`Q`i c`g Astk ewYZ tiU Ae wi UvY<sup>o</sup> nmve Kivi tg`uj`K m`f`U mi Kwi ev temi Kwi gwj Kvbvxb m`Avj b t`Kv`u`v`bxi t`y`f`I c`hvR` nBte| m`f`U vbt`g`v`i`uj` m`L`Z nBj t

$$I \text{ fvi Aj tiU Ae wi UvY} = \frac{(BK_{t+1} \text{ gj-ab} \times BK_{t+1} \text{ wi UvY} + kZK_{t+1} \text{ nvi}) + (FY \text{ gj-ab} \times F\text{Yi m}j \text{ i kZK}_{t+1} \text{ nvi})}{(BK_{t+1} \text{ gj-ab} + FY \text{ gj-ab})}$$

2.3.3.4.2| GB tiU Ae wi UvY<sup>o</sup> m`Avj b c`Z`v`b`K Drvi wevbt`qv`Mi Dci g`v`d`v AR`f`bi m`j`hvM c`vb Kwi te, hvnv Drvi `xN<sup>o</sup>tgqv`x F`Yi `vq cwi tkva Ges gj-ab m`v`i mvg`t`\_`q` Rb` h`v`m`j`Z euj`qv we`te`P`Z nBte|

2.3.4| tgvU e`q (Total Costs)

2.3.4.1| mvavi Y Avt`j`vPbv

2.3.4.1.1| tgvU e`q nBj vbgewYZ e`qmg`ni mgw`o, h\_v t j`v`B`m`Y`xi m`Avj b e`e`vi cwi Pvj b I i`y`Y`v`te`y`Y e`q, ms`k`o U`wi`d tiU erm`ti wmv`f`v`i`R`b` e`euZ I e`envh<sup>o</sup> m`u`i`i t`-`BU j`v`Bb c`x`w`Z`Z wmv`e`K`Z. AePq (depreciation) e`q, Ki, Ges j`v`B`m`Y`xi m`Avj b e`e`v cwi Pvj b ms`p`v`s`I` Ab` th t`K`v`b c`q`v`R`b`x`q e`q, hvnv vbt`g`e` m`f`U`Z c`v`k`Z nBqv`Q` t

$$tgvU \text{ e}^q = cwi \text{ Pvj b I i}yYvteyY \text{ e}^q + AePq + AvqKi \text{ I Ab}^v\text{b} \text{ Ki}$$

2.3.4.1.2| evsj v`k GKvDwUs ÷`v`U`W<sup>o</sup> (Bangladesh Accounting Standard) Ges Awf`b`ew`mv`e`i`y`Y c`x`w`Z (Uniform System of Accounts), h`L`b c`v`q`f`bi w`f`v`E`Z e`qmg`ni wmv`e`v`Y`Z nBte|

2.3.4.1.3| c0ZwU U`wi d Arte`tbi Rb` e`tqi wmwve 12 (evi) gvtmi c0KZ. Z`-DcvE we`kdt`Yi wfvE`Z c0`Z KwitZ nBte|

2.3.4.1.4| Kwgkb KZK h\_vh\_ wbi xyvi mveavt`U`wi d wbi fct`Yi Rb` mKj e`tqi hZ` i-m`e we`w`wi Z wmwve D`tj L KwitZ nBte|

2.3.4.1.5| cwipj b l i`yYvteyY e`q e`emvtqi tmB mKj e`q hnv tmev c0v`tbi mwnZ miwmi RwoZ ev Dnv nBtZ D`m`Z Ges tmevi e`e`w` i`yYvteyYRwbZ e`q|

2.3.4.1.6| Pj wZ m`ut` i eZgvb ek f`vij y(current book value) Abjvqx avhKZ. AePtqi cwigv GKwU e`q wmwve tgvU e`tqi Ašf` nBte, Ges cieZx`Z m`ut` i c`vg`vqb nBtj l D<sup>3</sup> avhKZ. AePtqi cwieZB nBte bv|

2.3.4.1.7| mKj c0hvR` Kimgr` K÷ Ae mwv`m Ašf` nBte|

#### 2.3.4.2| cwipj b l i`yYvteyY e`q (Operation and Maintenance Expenses)

2.3.4.2.1| cwipj b l i`yYvteyY e`q e`emvtqi tmB mKj e`q hnv tmev c0v`tbi mwnZ miwmi RwoZ ev Dnv nBtZ D`m`Z Ges wmt`÷g i`yYvteyY e`q|

2.3.4.2.2| m`Avj b c0Z0v`tbi cwipj b l i`yYvteyY e`q KtqKwU c0vb c0vb tkYxtZ wef<sup>3</sup>, h\_vt m`Avj b, M0nK wmwve LvZ, weµq, Ges c0kwm0K l m`avi Y e`q| M0nK wmwve l weµq mspvšl e`qmgr` c0KwZK M`vm m`Avj b tkv`0v`tbi e`tqi t`y`T mvgb` figKvB cvj b Kti |

##### 2.3.4.2.2.1| m`Avj b e`q

m`Avj b e`q `BwU c0vb tkYxtZ wef<sup>3</sup>t cwipj b l i`yYvteyY| cwipj b e`q wbgew`Z KtqKwU tkYxtZ wef<sup>3</sup>, h\_vt cwipj b, Z`vi wK l c0Kškj (operation, supervision and engineering), wmt`÷g K`Uj (system control) l tj wW wVmcwPs (load dispatching), wV l tUj KwgDib`Kmb (SCADA & Telecommunication) e`q, Kgt`cni t`÷kb (compressor station) Gi k0gK l e`q, Kgt`cni t`÷kb (compressor station) Gi Rjv vbx l we`y e`q, m`Avj b cvBtci e`q, ti t`j wJs G0 wgvms t`÷k`tbi e`q, M`vm g`wb`tdv` t`÷kb e`q, K`v`wWk c0UKkb hšcwZ e`q, Ab`vb` e`q, Ges fvov| i`yYvteyY e`q wbgew`Z e`qmgr` wef<sup>3</sup>, h\_vt i`yYvteyY, Z`vi wK l c0Kškj, AeKw`tgv i`yYvteyY l Dbqb, cvBtci i`yYvteyY, Kgt`cni t`÷kb (compressor

station) Gi hšcwZi i`yYteyY, ti t`j wS GŪ wglwis t÷k`bi hšcwZ i`yYteyY, M`m g`wbtdv`i t÷k`bi hšcwZ i`yYteyY, w`w I tUj KigDib`Kmb (Supervisory Control and Data Acquisition i.e. SCADA & Telecommunication) hšcwZ i`yYteyY, K`v`wWK cŪUKkb hšcwZ i`yYteyY Ges Ab`vb` hšcwZ i`yYteyY|

2.3.4.2.2.2| M`nK inmie mspvš`e`q

M`nK inmie mspvš`e`q tKej gv`I cwi Pj b e`q inmie weteiPZ nq| Z`vi wK, wglwi w`wS, M`nK ti KW`I wej Av`vq, Abv`vq`hwM` inmie, Ges M`nK inmie m`u`wKZ welea e`q Brvi Ašf`y |

2.3.4.2.2.3| we`m`q e`q

we`m`q e`q tKej gv`I cwi Pj b e`q inmie weteiPZ nq| Z`vi wK, we`m`q, we`Avcb, Ges we`m`q m`u`wKZ welea e`q Brvi Ašf`y |

2.3.4.2.2.4| c`k`m`bK I m`v`i`Y e`q

c`k`m`bK I m`v`i`Y e`q `Bw t`k`Y`Z wef`3, h`vt cwi Pj b e`q Ges i`y`tey`Y e`q; Z`te GB e`tqi ep`vskB cwi Pj b msuk`| cwi Pj b e`tqi g`ta` i`wqvtQt c`k`m`bK I teZb-fvZw`, Awdm mieivn, nqvW`mw`f`m`m (hired services), m`Avj b c`Bc`j`v`Bb I `vcbv exgv, m`u`w`E` exgv, Avnz I `y`wZM`I`K`g`P`v`i`x` i` Rb` e`q, K`g`P`v`i`x` i` t`cbk`b I Ab`vb` m`p`av, d`v`Y`B`i`R`s (Franchising), j`v`B`m`Y` dx, welea e`q, Ges f`i`ov BZ`w` | i`y`Y`tey`Y e`tqi Ašf`y tKej gv`I m`v`i`Y c`w`U (plant)Gi i`y`Y`tey`Y`R`ib`Z e`q|

2.3.4.2.2.5| `e`f`w`k`K g`y`i` w`e`l`g`t`q n`m`-e`w`x (Foreign Currency Exchange Fluctuation)

2.3.4.2.2.5.1| AvšR`w`Z`K Aw`R` c`i`Z`o`v` n`B`Z` M`p`x`Z `e`f`w`k`K FY cwi t`k`v`ai t`y`t`I AvšR`w`Z`K g`y`i` w`e`c`i`x`Z` ensj v`k` Uv`K`v`i` w`e`l`g`q` n`v`i` i` n`m`-e`w`x`i` K`v`i`Y` FY e`n`v`i` K`v`i`x` j`v`B`m`Y`x` i`v`R`^`y`w`Z`i` m`p`x`v` n`B`Z` c`v`i`i` t`K`b`b`v` FY cwi t`k`v`ai` m`g`c`w`i` g`v`Y` `e`f`w`k`K` g`y`i` `v`b`i`q` g`y`i`q` i`m`v`e`f`y` K`i`v` n`q`| `e`f`w`k`K` g`y`i`q` F`y`i` t`y`t`I Loan linked assets Ges `e`f`w`k`K` g`y`i`q` FY g`j`-` w`e`l`g`q` n`v`i` (Exchange rate) D`v` b`v`g`v`i` m`v`t`\_`m`v`t`\_`m`s`i`k`o` cwi m`u`^` g`j`-` D`v` b`v`g`v` K`t`i` w`e`a`v`q` w`e`l`g`q` n`v`i` i` c`v`\_`R` (Exchange rate variation) R`i`b`Z` Foreign loan linked assets g`t`j`-`i` D`c`i` A`e`P`q` (Depreciation Charge) w`b`Y`Z` n`B`te`|

## 2.3.4.3 | AePq (Depreciation)

hvPvB eł e`eüZ l e`envh`mKj m`út` i eml`R tguU AeP`tqi cwi gvY AePq e`tqi Ašf` nBte |

## 2.3.4.4 | AvqKi l Ab`vb` Ki

2.3.4.4.1 | j vBtm`Yx KZ`R c0`E Ki GKwU e`q hrvv tmev c0`vbi t`yt` e`emvqK e`q wnmvte Av`vqthvM` nBte |

2.3.4.4.2 | m`Avj b j vBtm`Yxi cwi Pvj b Gi t`yt` `B c0`Kv`i i Ki 0`iv mi vmi c0`hvR` h\_v t fvgKi l AvqKi |

2.3.4.4.2.1 | KgPvixi teZb ev wKv`v`i i vej nBtZ th A\_`j vBtm`Yx mi Kvi`tk c0`vbi Rb` KwUqv ivtL Zvrv U`wi d tiU wba`f`iYi D`f`tk` j vBtm`Yxi K÷ Ae mwf`f`mi Ašf` nBte bv | Zte D`i`f`c KwZ`Z At\_`P AwZwi<sup>3</sup> tKvb A\_`j vBtm`Yx mi Kvi`tk c0`vb Kw`tj Zvrv tmevi e`tqi GKwU Ask wnmvte MY` nBte | hv` j vBtm`Yx Ab` tKvb Ki cwi`tkva K`i hrvv GB c`xwZ`Z (methodology) Avtj wPZ nq bvB wKŠ` hrvvi c0`y` c`fve c0`KwZK M`vm m`Avj `bi Dci i`v`vq`Q, Zvrv nBtj Dnv K÷ Ae mwf`f`mi GKwU Ask wnmvte MY` nBte |

2.3.4.4.2.2 | fvgKi m`Avj Z M`v`tmi cwi gvY 0`iv mi vmi c`fveZ nq bv, Ges mvavi YZt Bnv wewa e`q wnmvte c0`wK`Z nq |

2.3.4.4.2.3 | hvPvB eł`mi Kvi`tk cwi`tkvaZ AvqKi U`wi d tiU wRvB`tb LiP wnmvte aiv nBte |

2.3.4.4.2.4 | mvavi`Y` Ab`f` e`emv`tqi (not publicly traded) tKv`úvbx`i t`yt` Ges mvavi`Y` Db`f` e`emv`tqi (publicly traded) tKv`úvbx`i t`yt` AvqKi wfbewf`bawba`f`i Z nv`i Av`vqthvM` nq | m`Avj b j vBtm`Yxi t`yt` Dvij wLZ th tKvb GKwU tKv`úvbx`i (not publicly traded/ publicly traded) nvi c0`hvR` nBte, Ges th nvi wU c0`hvR` nBte Zvrv mg\_`f`b U`wi d tiU Avte` bct`f` Z\_`-c0`vY \_wKtZ nBte |

2.3.4.4.3 | ersj v`k cY` Avg`vbx`i mgq GKRB j vBtm`Yx gj` msthvRb Ki (VAT), Avg`vbx`i e` l AwM0j AvqKi c0`vb K`i | Avg`vbx`i KZ.c`f`Y`i Pvj vb-gtj`i Dci wba`f`i Z nv`i AwM0j AvqKi Avt`ivc Kiv nq |

2.3.4.4.3.1| Avg`vbxKZ. ctY`i Dci cwi tkwaZ gj` msthvRb Ki (VAT) I Avg`vbx`i é m`ú` ev ctY`i msMh e`tqi GKwU Ask, ZvB Dnv D<sup>3</sup> m`ú` ev ctY`i msMh gj`i Ašf` nq| GB gj`B AePq Ges wi UvY<sup>©</sup> Ab A`v`mUm (Return on Assets) wbaŋ tY e`eüZ nBte|

2.3.4.4.3.2| hw` jvBtmYx tkvb µqKZ.ctY`i Dci gj` msthvRb Ki (VAT) c`vb Kti, Zvrv nBtj Dnv, U`wid tiU wbaŋ tYi D`f`k`, D<sup>3</sup> ctY`i msMh e`tqi Askifc m`ú` ev ctY`i c`wkZ e`q (book cost) Gi Ašf` nBte|

2.3.4.4.4| Avg`vbxKZ.ctY`i Dci AwMh AvqKi c`vb Qvovl, jvBtmYx KZ`mi Kvi`k `TgwmK wfvE`Z c`°wj Z AwMh AvqKi c`vb Kwi`Z nq| jvBtmYx msuk` A\_`ermti i Rb` Kti i GKwU c`°j b c`Z Kti | jvBtmYxi `wqZ; Kti i GKwU wbaŋ Z Ask AwMh c`vb Kiv| c`Z`K wZb gym ci ci, jvBtmYx weMZ wZb gv`mi c`KZ.Avq I Kti i `vtqi wfvE`Z cieZ`wZb gv`mi c`°j b mgšq Kti | A\_`ermi tk`l, c`°q AvqKti i mwnZ `TgwmK wfvE`Z c`°E AwMh AvqKi Ges cY` Avg`vbx`i mgq c`°E AwMh AvqKi mgšq Kwi qv bxU c`°q AvqKi mi Kvi`k c`vb Kwi`Z nq| hw` AwMh c`°E AvqKti i tgvU cwi gvY GKB A\_`ermti mi Kv`ti i c`c` AvqKti i cwi gv`Yi Awak nq, Zvrv nBtj AwZwi 3 AvqKi c`vb Kwi`Z nq bv, Ges AwMh c`°E AvqKti i D`E Ask cieZ` A\_`ermti tRi Uvbn nq| AwMh AvqKi GKwU AwMh-c`vb (prepayment) Ges Dnvi GKwU Ask ti`tj Uix I qmK<sup>®</sup> K`wvUvj (regulatory working capital) Ašf` nBte, thifc Dcti Pj wZ gj-ab Astk ewY` nBqqtQ|

2.3.5| mgwii kKZ. ewl` cwi Pj b ivR`^ Pwn`v (**Recommended Annual Operating Revenues Requirement**)

2.3.5.1| mgwii kKZ.ewl` cwi Pj b ivR`^Pwn`vi cwi gvY nBte c`°weZ wi UvY<sup>©</sup>Ab tiU teR (return on rate base) Ges Pj wZ erm`ti i AePq I Kimn tgvU cwi Pj b e`tqi mgwó, hvrv wbgewY` m`f` c`°wkZ nBqqtQ t

$$\text{mgwii kKZ.ewl` cwi Pj b ivR`^Pwn`v} = \text{c`°weZ wi UvY}^{\circ}\text{Ab tiU teR} + \text{cwi Pj b e`q}$$

2.3.5.2| m`Avj b jvBtmYx hvrv`Z ivR`^Pwn`v AR<sup>®</sup> Kwi`Z c`ti Z<sup>3</sup>/<sub>4</sub>b` ivR`^ ew`xi cwi gvY wbaŋ tYi D`f`k` Dcti ewY` mgwii kKZ.ewl` cwi Pj b ivR`^ cwi gvY`k Pj wZ cwi Pj b ivR`^ mwnZ Z`bv Kiv nq|

2.3.6 | tgvU Pj wZ cwi Pj b ivR<sup>-</sup>^(Total Current Operating Revenue)

2.3.6.1 | tgvU Pj wZ cwi Pj b ivR<sup>-</sup>^ wbgewY<sup>2</sup> Avqmg<sup>h</sup>ni mgw<sup>o</sup>, h<sub>vt</sub> m<sup>h</sup>vj b tmev eve<sup>h</sup> ivR<sup>-</sup>^; c<sup>o</sup> E Ab<sup>h</sup>vb<sup>h</sup> tmev nB<sup>h</sup>Z Avq, m<sup>y</sup> eve<sup>h</sup> Avq, Ges wewea Avq, hvnv wbgewY<sup>2</sup> m<sup>h</sup>f<sup>h</sup> c<sup>o</sup> w<sup>h</sup>k<sup>h</sup> nBqv<sup>h</sup>Qt

tgvU Pj wZ cwi Pj b ivR<sup>-</sup>^ = m<sup>h</sup>vj b + Ab<sup>h</sup>vb<sup>h</sup> tmev + m<sup>y</sup> + wewea

2.3.7 | c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx (Proposed Revenue Increase)

2.3.7.1 | Pj wZ cwi Pj b ivR<sup>-</sup>^ | mgw<sup>h</sup>wi kKZ. cwi Pj b ivR<sup>-</sup>^ t<sup>h</sup> g<sup>h</sup>a<sup>h</sup> th cwi gvY ivR<sup>-</sup>^ t<sup>h</sup> cv<sup>h</sup> R<sup>h</sup> Zvnb c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx | GB ivR<sup>-</sup>^ewx U<sup>h</sup>wi d tiU ewx Kwi qv AwR<sup>h</sup> nq hvnv j vB<sup>h</sup>tmY<sup>h</sup>xtK mgw<sup>h</sup>wi kKZ. tiU Ae wi UvY<sup>o</sup> (rate of return) AR<sup>o</sup> Ges cwi Pj b e<sup>h</sup>q wbe<sup>h</sup>ni Rb<sup>h</sup> ch<sup>h</sup>fb Znwj j v<sup>h</sup>tfi m<sup>h</sup>h<sup>h</sup>vM c<sup>o</sup>vb K<sup>h</sup>i | w<sup>h</sup>tg<sup>h</sup>e m<sup>h</sup>f<sup>h</sup> Bnv c<sup>o</sup> w<sup>h</sup>k<sup>h</sup> nBqv<sup>h</sup>Qt t

c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx = mgw<sup>h</sup>wi kKZ. cwi Pj b ivR<sup>-</sup>^ t<sup>h</sup> Pj wZ ivR<sup>-</sup>^

2.3.7.2 | Dvj wLZ c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx i Dci AvqKi c<sup>o</sup> hvR<sup>h</sup> | tmB Kvi tY D<sup>3</sup> c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx Pj wZ ivR<sup>-</sup>^ t<sup>h</sup> minZ miwmi thvM Kwi qv ev<sup>h</sup>evqb Kiv nB<sup>h</sup>tj j vB<sup>h</sup>tmY<sup>h</sup> mgw<sup>h</sup>wi kKZ. cwi Pj b ivR<sup>-</sup>^ j v<sup>h</sup>tf e<sup>h</sup> nB<sup>h</sup>te | f<sup>h</sup>wel<sup>h</sup> tZ c<sup>o</sup> lweZ ivR<sup>-</sup>^ ewaZ K<sup>h</sup>i i mgcwi gvY Kg nB<sup>h</sup>te | m<sup>h</sup>z<sup>h</sup>vis, j vB<sup>h</sup>tmY<sup>h</sup> hvnv<sup>h</sup>Z mgw<sup>h</sup>wi kKZ. ivR<sup>-</sup>^ t<sup>h</sup> m<sup>h</sup>u<sup>h</sup>Y<sup>h</sup>GB AR<sup>o</sup> Kwi tZ cv<sup>h</sup>i Z<sup>h</sup>4<sup>h</sup>b<sup>h</sup> ivR<sup>-</sup>^ewx i cwi gvY wKQ<sup>h</sup> evovBqv (grossed up) w<sup>h</sup>mwve Kwi tZ nB<sup>h</sup>te | ewaZ Ki w<sup>h</sup>mwve awi qv D<sup>3</sup> ivR<sup>-</sup>^ewx i cwi gvY Av<sup>h</sup>tivl ewx Kwi tZ nB<sup>h</sup>te | GBR<sup>h</sup> GKwU ti w<sup>h</sup>f<sup>h</sup>wbD Kbfvi kb d<sup>h</sup>v<sup>h</sup>i (revenue conversion factor) ^ZiX Kiv nBqv<sup>h</sup>Qt, hvnv <sup>o</sup>vi v c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx w<sup>h</sup>Y<sup>h</sup> Kiv m<sup>h</sup>ae nB<sup>h</sup>te |

2.3.7.2.1 | Dvj wLZ ti w<sup>h</sup>f<sup>h</sup>wbD Kbfvi kb d<sup>h</sup>v<sup>h</sup>i GKwU m<sup>h</sup> <sup>o</sup>vi v w<sup>h</sup>Y<sup>h</sup> Kiv nq | D<sup>3</sup> m<sup>h</sup> Absvqx <sup>o</sup>10 msL<sup>h</sup>v<sup>h</sup>tK, Aci GKwU <sup>o</sup>10 msL<sup>h</sup>v nB<sup>h</sup>tZ c<sup>o</sup> hvR<sup>h</sup> AvqKi nvi w<sup>h</sup>etqvM Kwi qv th w<sup>h</sup>etqvMdj cvl qv hvq, Zvnb <sup>o</sup>vi v f<sup>h</sup>vM Kiv nq, thi<sup>h</sup>fc w<sup>h</sup>tg<sup>h</sup>e c<sup>o</sup> E nBj t

ti w<sup>h</sup>f<sup>h</sup>wbD Kbfvi kb d<sup>h</sup>v<sup>h</sup>i = 1 ÷ (1 + AvqKi nvi)

2.3.7.2.2 | GBfv<sup>h</sup>te Kbfvi kb d<sup>h</sup>v<sup>h</sup>i w<sup>h</sup>Y<sup>h</sup>qi ci Dnv <sup>o</sup>vi v c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx i cwi gvY<sup>h</sup>tK Y Kwi qv mgw<sup>h</sup>wi kKZ. ivR<sup>-</sup>^ewx cvl qv hvB<sup>h</sup>te, hvnv wbg<sup>h</sup>ef<sup>h</sup>c c<sup>o</sup> E nBj t

mgw<sup>h</sup>wi kKZ. ivR<sup>-</sup>^ewx = c<sup>o</sup> lweZ ivR<sup>-</sup>^ewx × ti w<sup>h</sup>f<sup>h</sup>wbD Kbfvi kb d<sup>h</sup>v<sup>h</sup>i

2.3.8| tgvU mgzwi kKZ. ivR<sup>-^</sup> Pwn<sup>`v</sup> (**Total Recommended Revenue Requirement**)

tgvU mgzwi kKZ. ivR<sup>-^</sup> Pwn<sup>`v</sup> nBtZtQ Pj wZ ivR<sup>-^</sup> Ges mgzwi kKZ. ivR<sup>-^</sup> epxi mgwó, thifc wbtg<sup>é</sup> m<sup>h</sup> c<sup>0</sup> wk<sup>z</sup> nBqv<sup>tQ</sup> t

$$\text{mgzwi kKZ. tgvU ivR}^{-\wedge} \text{Pwn}^{\`v} = \text{tgvU Pj wZ ivR}^{-\wedge} + \text{mgzwi kKZ. ivR}^{-\wedge} \text{epxi}$$

2.4| Awfbam<sup>Á</sup>vj b tiU

2.4.1| NbwgUvi tK GK BDwbU awi qv ewl R m<sup>Á</sup>vj Z M<sup>`</sup>v<sup>m</sup>i tgvU BDwbU msL<sup>`v</sup> Øviv mgzwi kKZ. ivR<sup>-^</sup> Pwn<sup>`v</sup> tK fvM Kw<sup>i</sup> t<sup>j</sup> th fvM<sup>d</sup>j cvl qv hvB<sup>te</sup> Zvnb nB<sup>te</sup> Awfbam<sup>Á</sup>vj b tiU| wbtg<sup>é</sup> m<sup>h</sup> Bnv c<sup>0</sup> wk<sup>z</sup> nBj t

$$\text{m}^{\wedge} \text{vj b tiU} = \text{mgzwi kKZ. ivR}^{-\wedge} \text{Pwn}^{\`v} + \text{ewl R m}^{\wedge} \text{vj Z M}^{\`v} \text{v}^{\text{m}} \text{i cwi gvY}$$

3| wnmv<sup>t</sup>ei D<sup>`</sup>vni Y I m<sup>h</sup>mg<sup>t</sup>ni mvi -mst<sup>ý</sup>c

3.1| GB c<sup>x</sup>wZ (methodology) Ablyq<sup>x</sup> Awfbam<sup>Á</sup>vj b ti<sup>t</sup>Ui GKwU mv<sup>g</sup>wM<sup>k</sup> wnmv<sup>t</sup>ei D<sup>`</sup>vni Y e<sup>v</sup>L<sup>`</sup>v<sup>m</sup>n cwi wk<sup>ó</sup> ØK<sup>0</sup> tZ c<sup>0</sup> vb Ki v nBqv<sup>tQ</sup>|

3.2| GB c<sup>x</sup>wZ<sup>t</sup>Z (methodology) ew<sup>y</sup>z m<sup>Á</sup>vj b U<sup>`</sup>v<sup>m</sup>i d c<sup>x</sup>wZ<sup>i</sup> (methodology) m<sup>h</sup>mg<sup>t</sup>ni mvi -mst<sup>ý</sup>c cwi wk<sup>ó</sup> ØL<sup>0</sup> tZ c<sup>0</sup> vb Ki v nBqv<sup>tQ</sup>|







## wrmve 6

GB wrmvte mKj Pj wZ ivR`^thvM Kiv nBqvTQ|

## wrmve 7

GLvfb wrmve 6 G wrmveKZ.Pj wZ ivR`^wrmve 5G wrmveKZ.mgzwii kKZ.ivR`^nBtZ w`tqvM Kiv nBqvTQ Ges GB w`tqvMdj B nBtZtQ mgzwii kKZ.ivR`^AR#bi Rb` Pj wZ ivR`^th cwi gvY epx Kiv c`qvRb tmB cwi gvY|

## wrmve 8

GLvfb GKwU tiwfvbD Kbfvikb d`v±i (revenue conversion factor) wBY@ Kiv nBqvTQ| Brvi m`wU nBtZtQ 010 msL`v`K Aci GKwU 010 msL`v nBtZ c`hvR` AvqKi nvi w`tqvMi ci w`tqvMdj 0viv fvM Kiv| c`E D`vni tY wrmvewU GBi#c Kiv nBqvTQ t 1÷(1-0.375), hvnv 1.6 Gi mgvb, AvqKi nvi aiv nBqvTQ 37.5%| GBi#c wrmve Kivi KviY GB th, wrmve 7 G wrmveKZ.ivR`^epx hv` Avtqi Askifc c`B nq Zvrv nBtj Dnvi DciI AvqKi c`hvR` nBte dtj tKv`úvbx Ki cwi tkvtai ci mgzwii kKZ.ivR`^epx jvf Kwi tZ cwi te bv| m`Zivs, ivR`^epx tK Ktii mwnZ mgšq mvab c`qvRb (grossed up), hvnvZ Ki cwi tkvtai ci c`B bxU ivR`^ mgzwii kKZ.ivR`^epxi mgvb nq|

## wrmve 9

GLvfb wrmve 7 Gi c`wvZ ivR`^epx tK wrmve 8 G wBY@ tiwfvbD Kbfvikb d`v±i 0viv ,Y Kiv nBqvTQ|

## wrmve 10

GLvfb wrmve 6 Gi Pj wZ ivR`^tK wrmve 9 Gi c`wvZ ivR`^epxi mwnZ thvM Kiv nBqvTQ Ges Bnv nBtZ tgvU ivR`^Pwin`vi cwi gvY cvl qv wMqvTQ| BnvB tgvU ivR`^ cwi gvY hvnv m`Avj b tKv`úvbx i mKj e`q m`zv b l m`út` i Dci Avq AR#bi Rb` Avt`wcz tiU nBtZ AwRZ nI qv c`qvRb|

## wrmve 11

GLvfb m`Avj b e`v`vq cwi ewinZ M`v`mi ewl`R tgvU cwi gvY NbwgUvti wrmve Kiv nBqvTQ|

## wrmve 12

GLvfb wrmve 10 G wrmveKZ.ivR`^Pwin`v wrmve 11 G c`wvZ m`Avj Z M`v`mi cwi gvY 0viv fvM Kiv nBqvTQ Ges Bnv nBtZ c`Z NbwgUvti i tiU cvl qv wMqvTQ Ges ZvrvB nBte m`Avj b tKv`úvbx KZ`R.Dnvi M`nKt` i Dci Avt`vc`thvM` tiU|

GB D`vni YwU GKwU tgvUvgyU wrmve, Zte BnvZ m`Avj b tiU wbi#ctYi c`v b `li mgr c`wvZ nBqvTQ| avi Yv Kiv nq th, M`nKt` i mKtj GKBi#c m`Avj b tiU jvf Kwi te Ges D`3 tiU m`Avj tbi `i-Zjwv`k tI mKj t`y tI GKBi#c nBte|

cwi wkó ÔLÔ

mÂvj b U'wi d tgř\_vřWj wRi (methodology) mĤmgřni mvi-mstÿc

[Zdřmřj i AbřQ` 3.2 `ře]

wbtgřewřZ mĤmgř e`envi Kwi qv GKwU b`vh` I hřřmřZ cĚKwZK M`vm mÂvj b U'wi d wbařřY Kiv hřq| GB dgřvmgřni cĚqM mřřřř ve`řwi Z Z` GB cřwřřZ (methodology) BřZvgřa` Avřj wřZ nBqřřQ|

dgřvmgř t

tgřU ewl ř i vR`^Přm`v = wi UvřAb řiU teR + tgřU e`q

řiU teR = e`eüZ I e`envi řhvM` mřřřř i AePřqZ gj` + ři`řj Uix I qřwKř K`řwUvj

mÂvj b ři`řj Uix I qřwKř K`řwUvj = bM` Pj wřZ gj-ab + gřj vřj I mieivřni gl Rÿ gj` + AwMř cĚ Ě A`

mÂvj b ři`řj Uix I qřwKř K`řwUvj = bM` Pj wřZ gj-ab + gřj vřj I mieivřni gl Rÿ gj` + AwMř A`

bM` Pj wřZ gj-ab = 1/4 × (ewl ř cwi Pj b I i řYřteřY e`q)

gřj vřj I mieivřni gl Rÿ gj` = (gřj vřj I mieivřni evi gřřmi tgřU gj`) ÷ 4

řiU Ae wi Uvř =  $\frac{[(BKřwU gj-ab \times BKřwU wi UvřřkZKiv nvi) + (FY gj-ab \times Fřři mřř i kZKiv nvi)]}{(BKřwU gj-ab + FY gj-ab)}$

BKřwU wi Uvřřř kZKiv nvi =  $\frac{[(Kgb ÷ K cwi gřY \times j řřřřřki nvi) + (Aeřkó BKřwU cwi gřY \times bb- ÷ K řiU)]}{(Kgb ÷ K cwi gřY + Aeřkó BKřwU cwi gřY)}$

Fřři nvi %=  $\frac{[(\`xřřřřřř \times FY \times Fřři mřř i nvi) + (řcřřwř ÷ K cwi gřY \times j řřřřřki nvi)]}{(\`xřřřřřř \times FY + řcřřwř ÷ K cwi gřY)}$

tgřU e`q = cwi Pj b I i řYřteřY e`q + AePř + AvřKi I Ab`vb` Ki

mřřwi kKZ.cwi Pj b i vR`^= cřřřwřZ wi UvřAb řiU teR + cwi Pj b e`q

tgřU Pj wřZ cwi Pj b i vR`^= mÂvj b + Ab`vb` řmev + mřř + wřřea

$$c\ddot{O} \text{ hweZ } i v R^{-\wedge} e_{\text{w}} \times = \text{mgzwi kKZ.cwi Pj b } i v R^{-\wedge} - \text{Pj wZ } i v R^{-\wedge}$$

$$t i w f i b D \text{ K b f v i k b d } v \pm i = 1 \div (1 \text{ i A v q K i n v i})$$

$$\text{mgzwi kKZ.i v R}^{-\wedge} e_{\text{w}} \times = c\ddot{O} \text{ hweZ } i v R^{-\wedge} e_{\text{w}} \times \times t i w f i b D \text{ K b f v i k b d } v \pm i$$

$$\text{mgzwi kKZ.i v R}^{-\wedge} P w n \text{ `v} = t g v U \text{ P j w Z } i v R^{-\wedge} + \text{mgzwi kKZ.i v R}^{-\wedge} e_{\text{w}} \times$$

$$m \hat{A} v j \text{ b t i U} = \text{mgzwi kKZ.i v R}^{-\wedge} P w n \text{ `v} \div \text{ewl } \mathcal{R} \text{ m } \hat{A} v j \text{ Z M } v m \text{ B D i b t U i c w i g v Y}^*$$

\* Awfbaı̂ı U I tmevi gvb weı̂ePbvq|

Kıgkı̂ıı Awı̂ kı̂ııg

ı̂mq` B D m g l t n v t m b

t P q v i g v b |