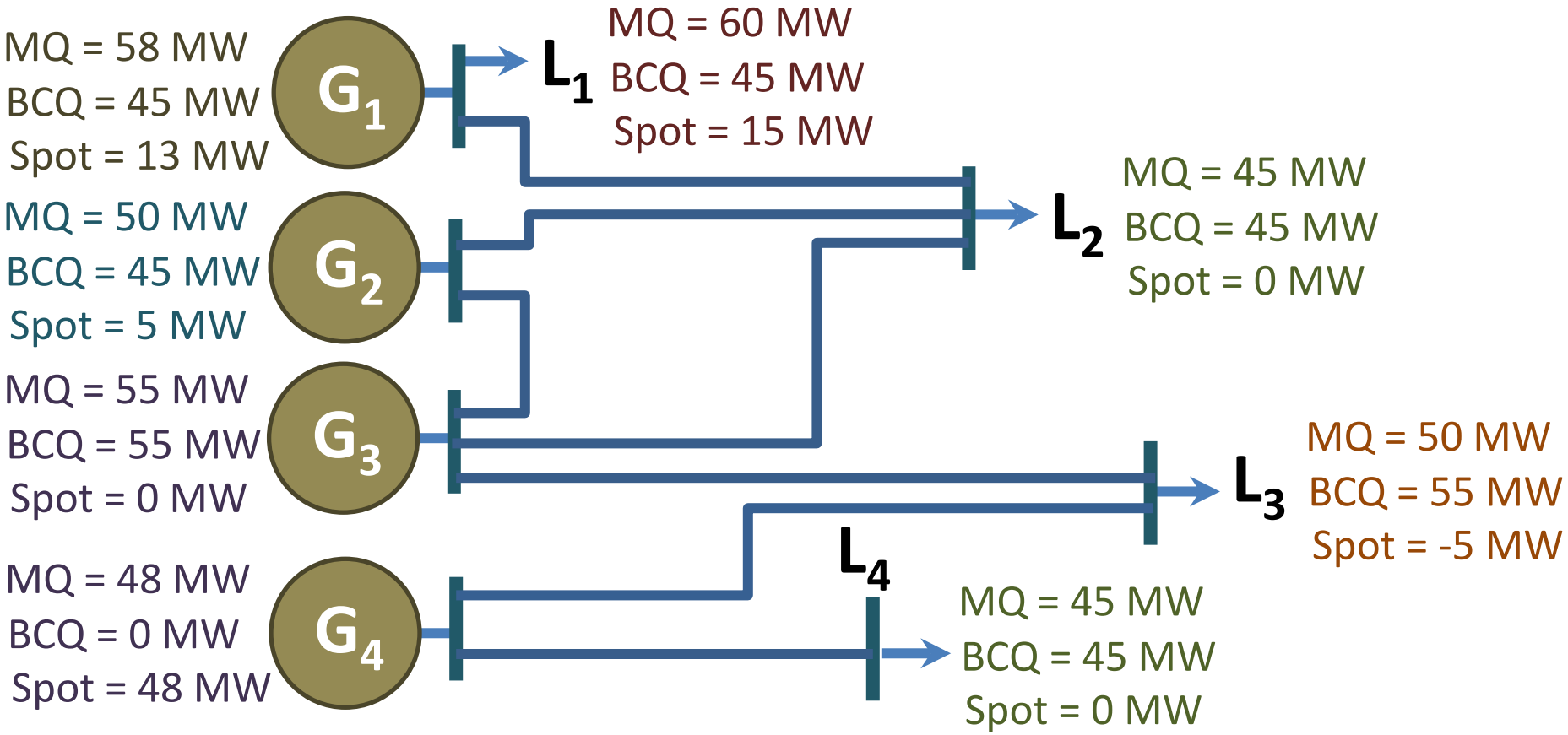
Proposed Settlement of Administered Price

Salient Features of the APDM

- APDM are governed by the historical price of the generator
- There is no Nodal Price for the Load
- There is no Net Settlement Surplus (NSS)
- Causers Pay
- Bilateral Contract Quantity (BCQ) was already served at contract Price, thus line rental should not be influence by the market prices
- Inter region APDM apply

Calculation of Administered Price



Administered Price of G_1 = Php 1.0 per kwh
Administered Price of G_2 = Php 2.0 per kwh
Administered Price of G_3 = Php 3.0 per kwh
Administered Price of G_3 = Php 4.0 per kwh

Calculation of Settlement Amount of Generator

Generator Settlement

$TA =$ Spot x Admin Price

$TA_{G1} =$ 13 x 1 = Php 13

$TA_{G2} =$ 5 x 2 = Php 10

$TA_{G3} =$ 0 x 3 = Php 0

$TA_{G4} =$ 48 x 4 = Php 192

$TTA = TA_{G1} + TA_{G2} + TA_{G3} + TA_{G4}$

$TTA =$ 13 + 10 + 0 + 192 = Php 215

Determination of Administered Price

$$AP_{\text{Gen-i}} = \frac{\sum_{D=1}^{4} EPP_{\text{Gen-i,D}} * MQ_{\text{Gen-i,D}}}{\sum_{D=1}^{4} MQ_{\text{Gen-i,D}}}$$

$$SA_{\text{Load-j}} = \left(\frac{\sum_{i=1}^{n} AP_{\text{Gen-i}} * MQ_{\text{Gen-i}}}{\sum_{j=1}^{m} MQ_{\text{Load-j}}}\right) * MQ_{\text{Load-j}}$$

EPP = Ex-Post Price
AP = Administered Price
D = number of historical trading days to be considered
i = Generator resources (Suppliers)
MQ = Meter Quantity
SA = Settlement Amount
n = number of generator resources with positive meter quantity
m = number of load resources with negative meter quantity
j = Load resources (Customers)

Calculation of Administered Price – Option 1

Load Settlement

$$SA_{\text{Load-j}} = \left(\frac{\sum_{i=1}^{n} AP_{\text{Gen-i}} * MQ_{\text{Gen-i}}}{\sum_{j=1}^{m} MQ_{\text{Load-j}}}\right) * MQ_{\text{Load-j}}$$

$$AP_{\text{Gen-i}} = \frac{\sum_{D=1}^{4} EPP_{\text{Gen-i,D}} * MQ_{\text{Gen-i,D}}}{\sum_{D=1}^{4} MQ_{\text{Gen-i,D}}}$$

Load Settlement with Bilateral

$$AP_{\text{Gen-i}} = \frac{\sum_{D=1}^{4} EPP_{\text{Gen-i,D}} * MQ_{\text{Gen-i,D}}}{\sum_{D=1}^{4} MQ_{\text{Gen-i,D}}} = \frac{58*1 + 50*2 + 55*3 + 48*4}{60 + 45 + 50 + 55} = 2.45$$

$SA_{L1} = 2.45 * 60 - 1*45 = 102.14$ $SA_{L2} = 2.45 * 45 - 2*45 = 20.36$

$SA_{L3} = 2.45 * 50 - 3*55 = -42.38$ $SA_{L4} = 2.45 * 55 - 4*0 = 134.88$

$TTA = TA_{L1} + TA_{L2} + TA_{L3} + TA_{L4}$

$TTA = 102.14 + 20.36 + (-42.38) + 134.88 = \text{Php } 215$

Calculation of Administered Price – Option 2

Load Settlement

$$SA_{\text{Load-j}} = \left(\frac{\sum_{i=1}^{n} AP_{\text{Gen-i}} * Spot_{\text{Gen-i}}}{\sum_{j=1}^{m} Spot_{\text{Load-j}}}\right) * Spot_{\text{Load-j}} \qquad AP_{\text{Gen-i}} = \frac{\sum_{D=1}^{4} EPP_{\text{Gen-i,D}} * MQ_{\text{Gen-i,D}}}{\sum_{D=1}^{4} MQ_{\text{Gen-i,D}}}$$

Load Settlement with Bilateral

Total Spot Quantity = $Spot_{L1} + Spot_{L2} + Spot_{L3} + Spot_{L4}$

Total Spot Quantity = 15 + 0 + (-5) + 55 = 65

$$SA_{L1} = \left(\frac{215}{65}\right) * 15 = 49.62 \qquad SA_{L2} = \left(\frac{215}{65}\right) * 0 = 0.0$$

$$SA_{L3} = \left(\frac{215}{65}\right) * (-5) = -16.54 \qquad SA_{L4} = \left(\frac{215}{65}\right) * 55 = 181.92$$

TTA = $TA_{L1} + TA_{L2} + TA_{L3} + TA_{L4}$

TTA = 49.62 + 0.0 + (-16.54) + 181.82 = Php 215

Thank You!