

ENERGY SECURITY BOARD

POST 2025 MARKET DESIGN
PROGRAM

TRANSMISSION ACCESS REFORM:
TECHNICAL WORKING GROUP -
SESSION 7

12 MAY 2022





AGENDA

Time	Topic
3:00	Welcome, objectives and agenda
3:05	Webinar on transmission access consultation paper
3:15	Discussion of options for CMM allocation metric
4:00	Update on Clean Energy Council work on congestion management
4:50	Next Steps
5:00	Thanks and Close

ACCESS ALLOCATION OPTIONS



WHAT IS ACCESS?

Energy settlement under CMM

Access

Dispatch

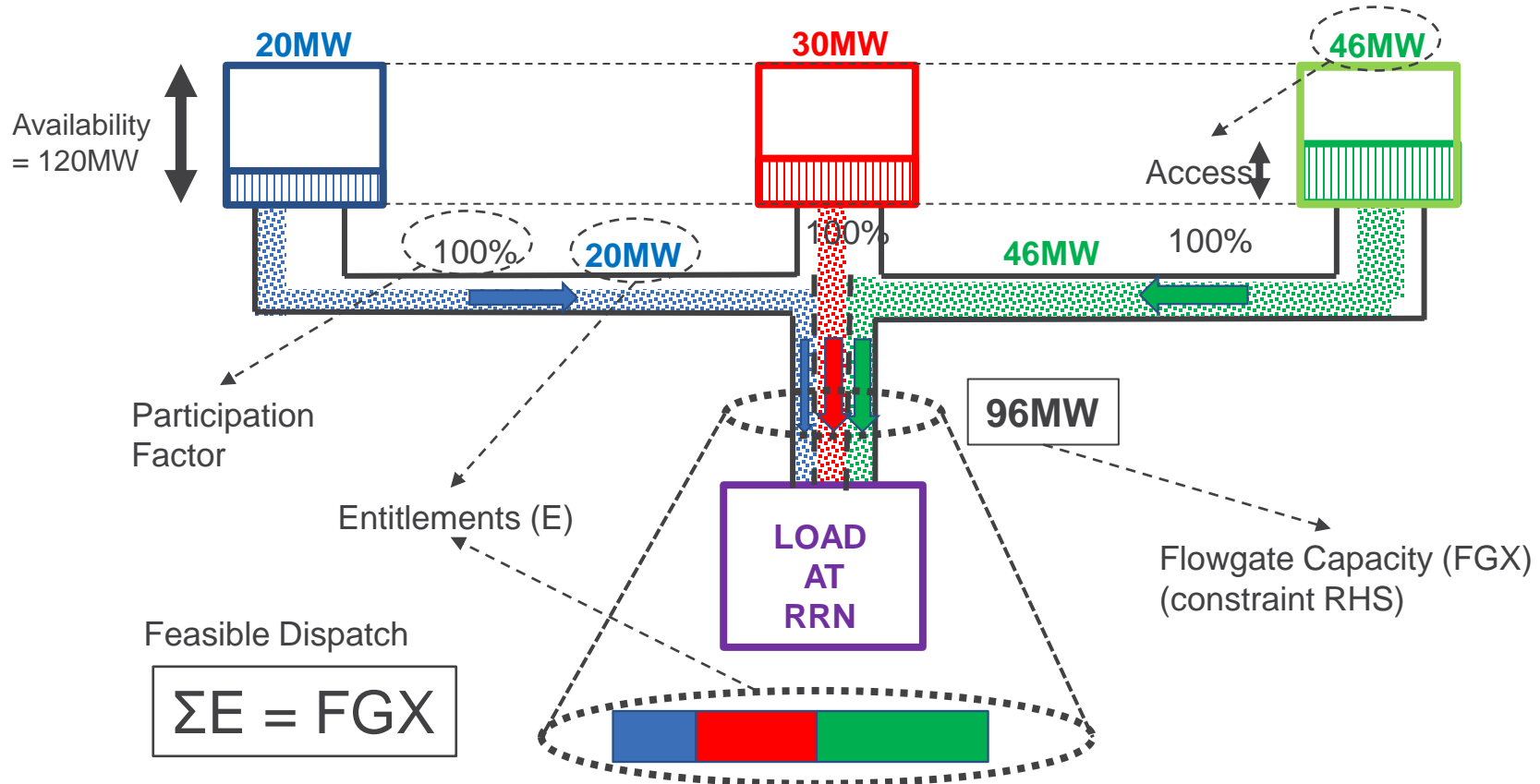
Side Payment

$$\text{CMM\$} = A \times \text{RRP} + (G - A) \times \text{LMP}$$

Allocated access must represent a feasible dispatch

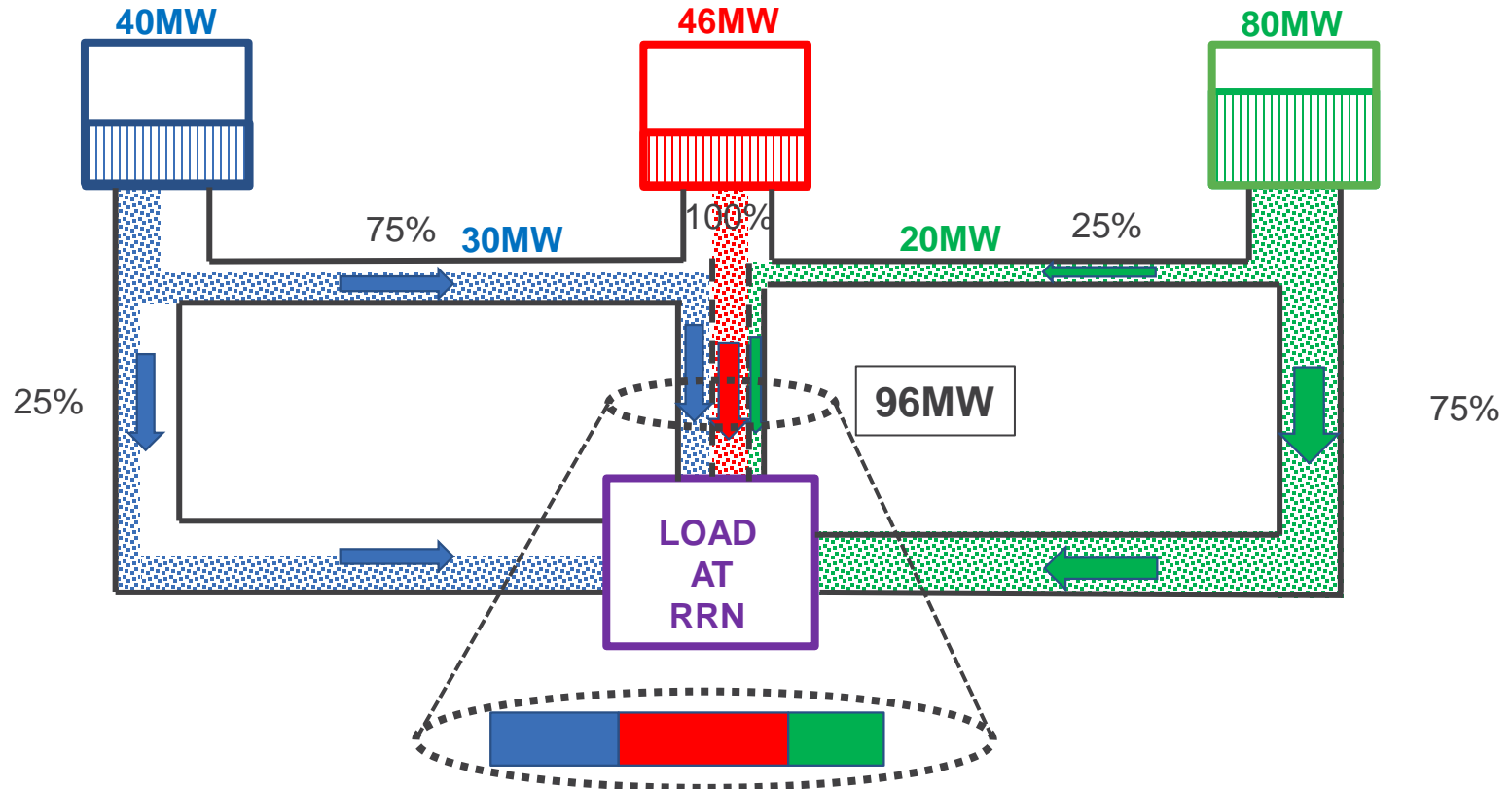


RADIAL FLOWGATE (CONSTRAINT)



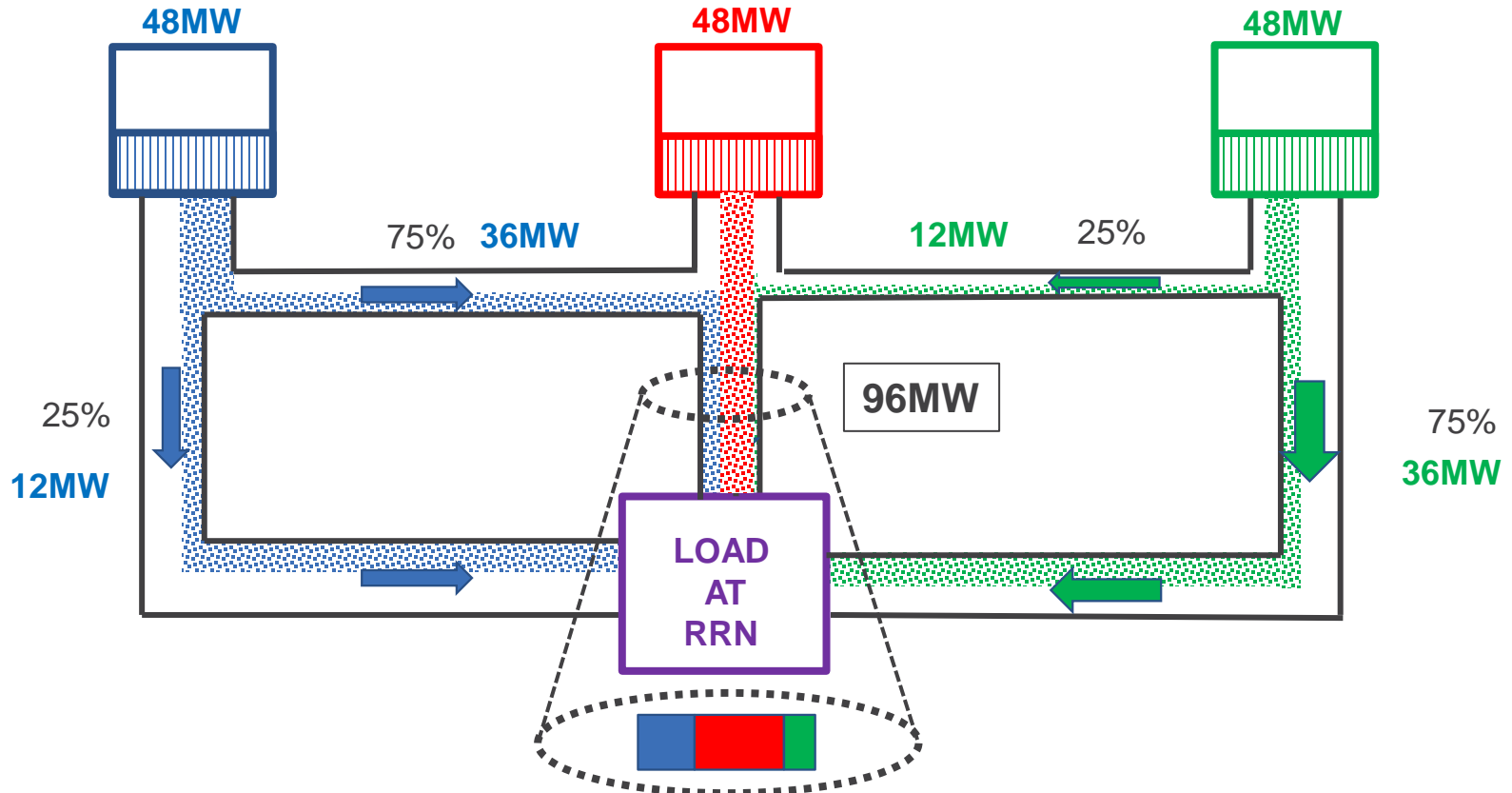


LOOP FLOW CONSTRAINT



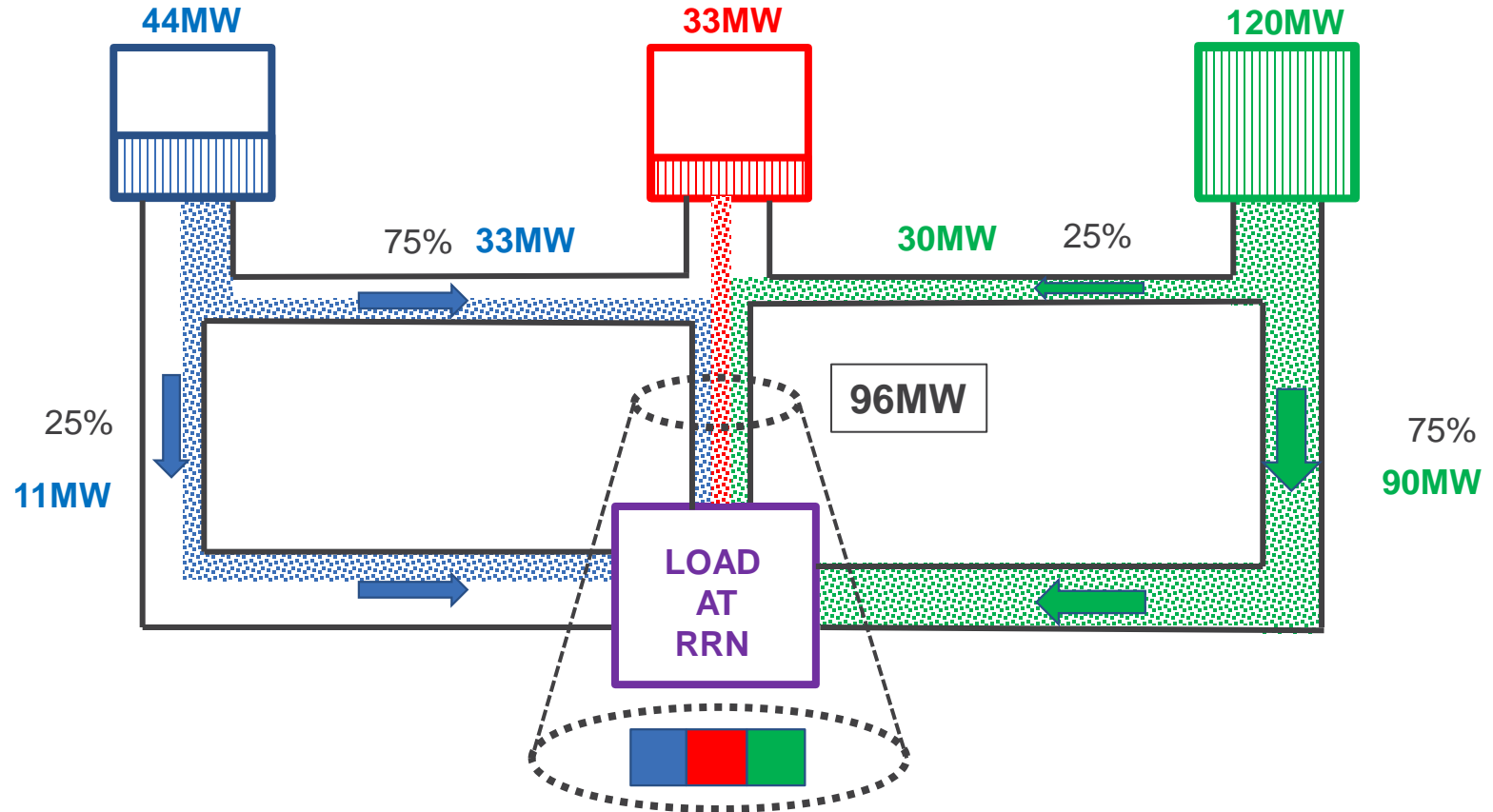


MAKE IT "FAIR": PRO RATA ACCESS



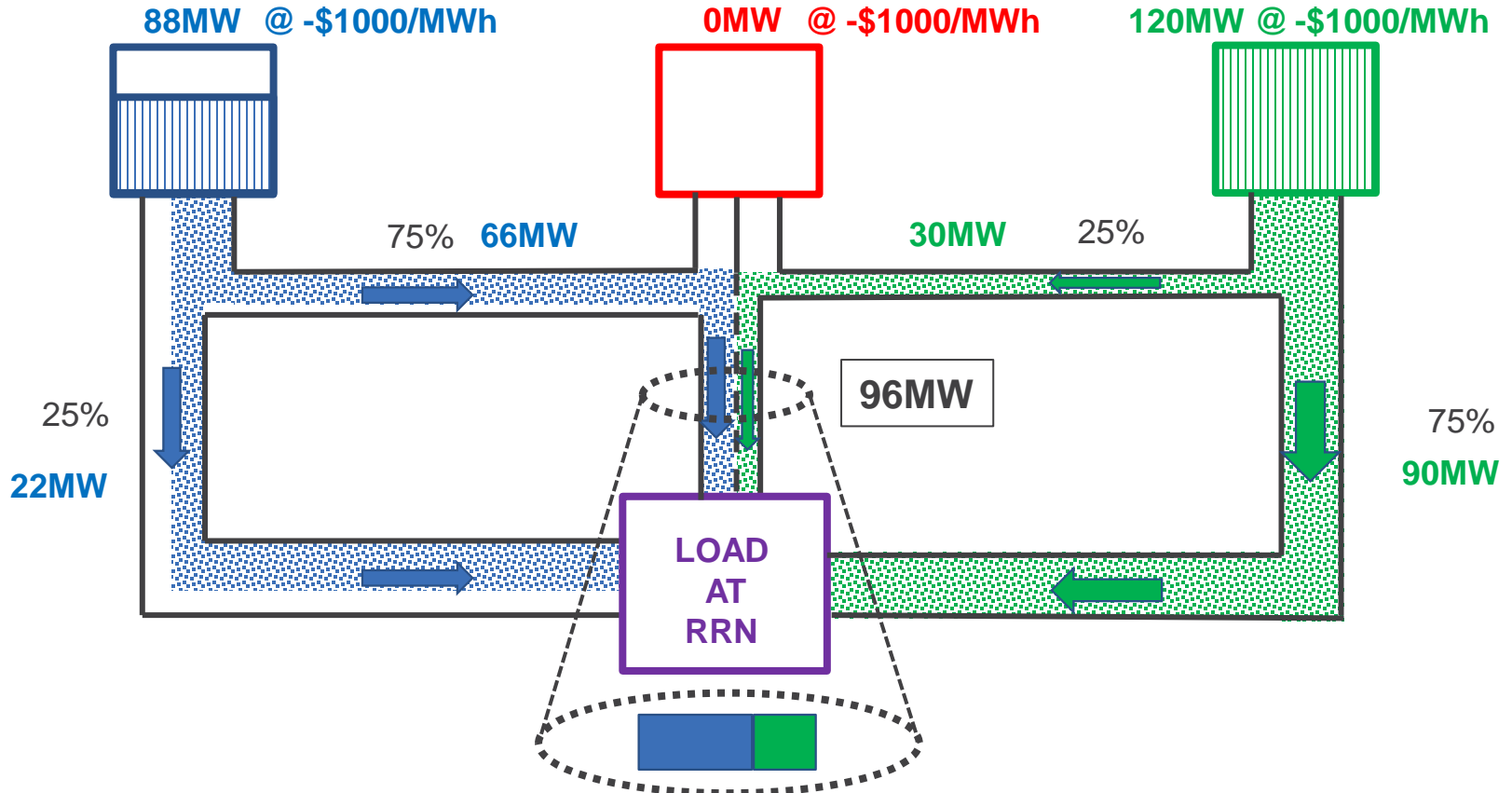


OR IS THIS "FAIRER": PRO RATA ENTITLEMENTS



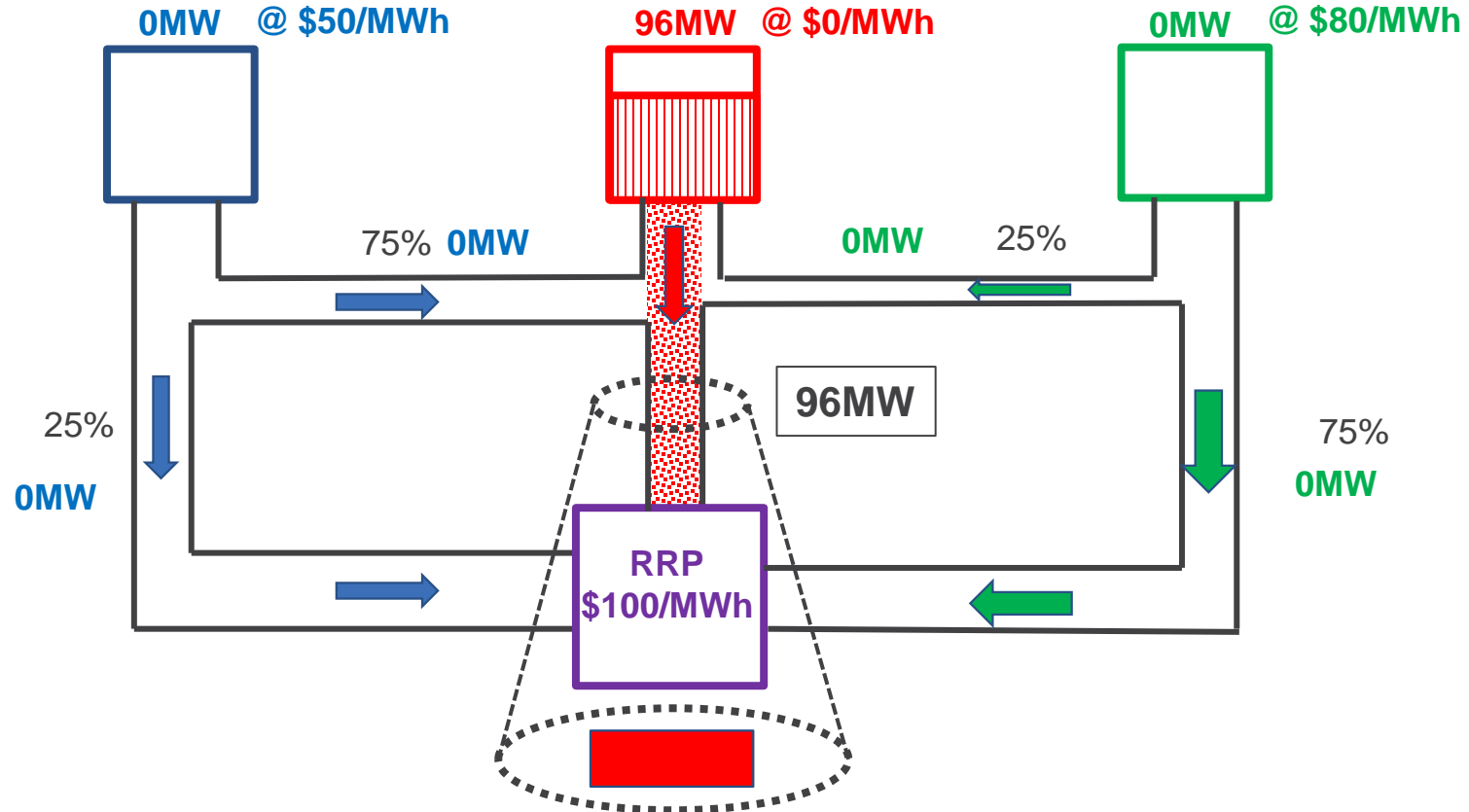


MAKE IT LIKE TODAY'S DISPATCH: *WINNER TAKES ALL*



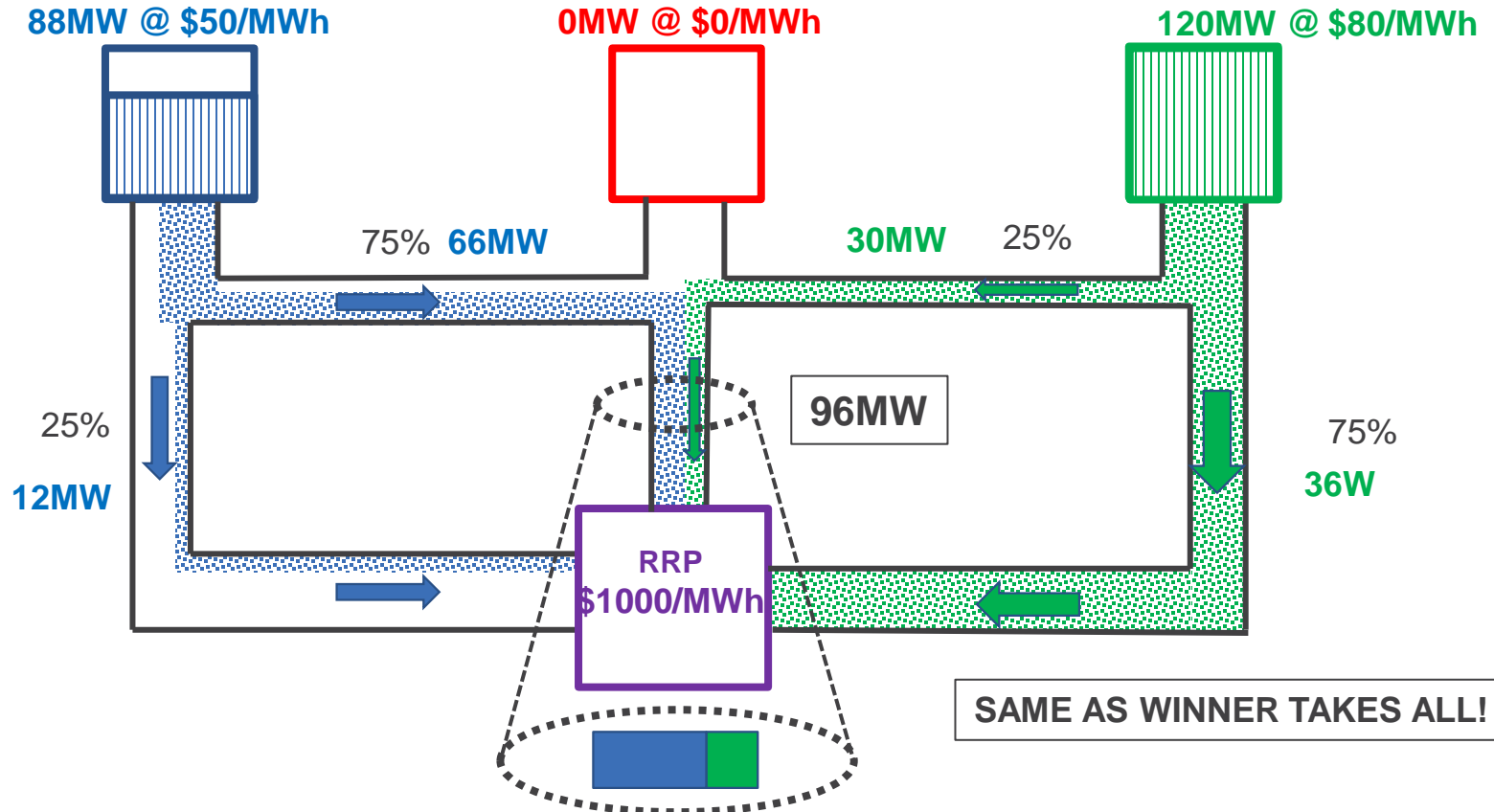


MAKE IT LIKE FUTURE DISPATCH: *INFERRED EFFICIENT DISPATCH*



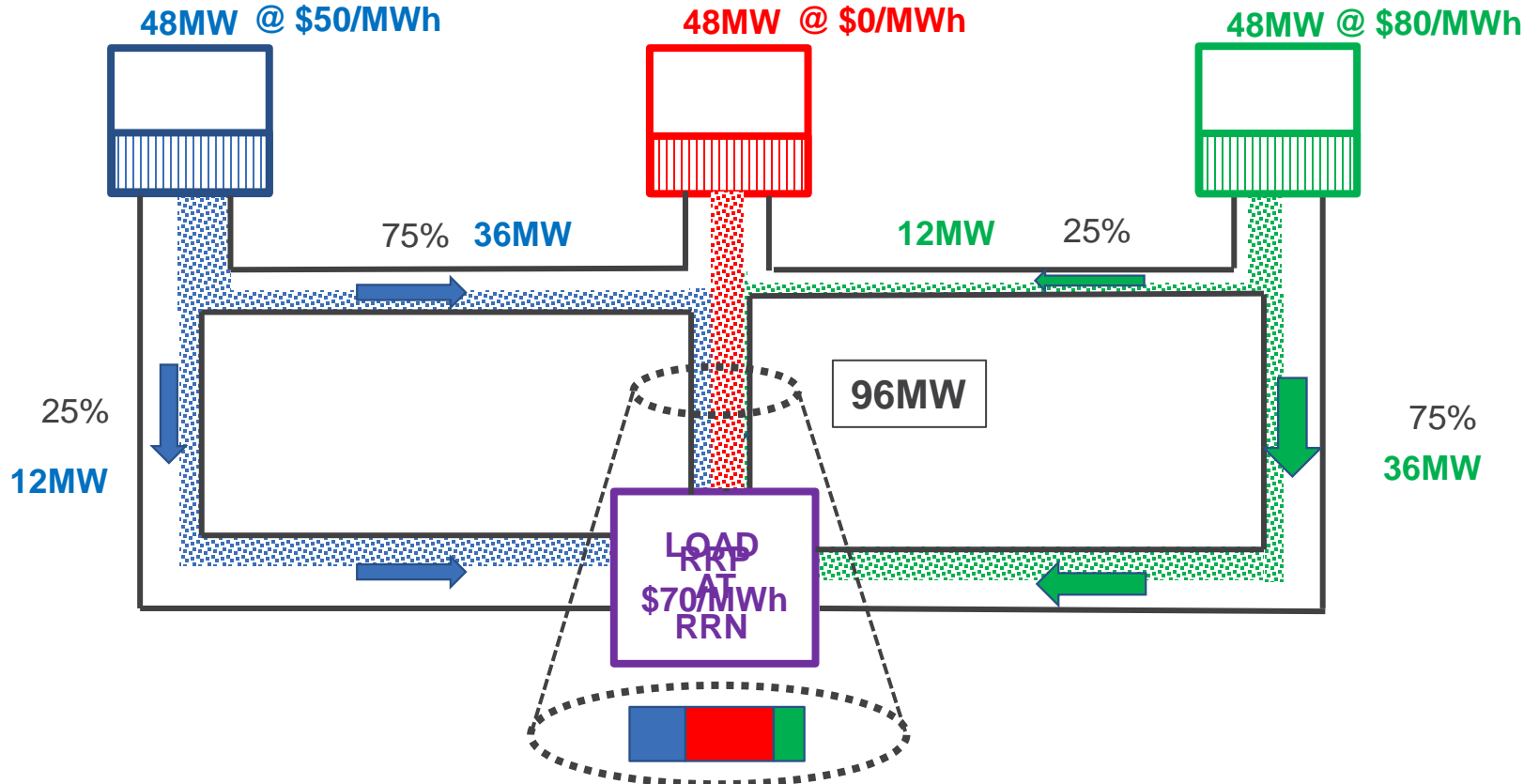


INFERRED ECONOMIC DISPATCH: HIGH RRP



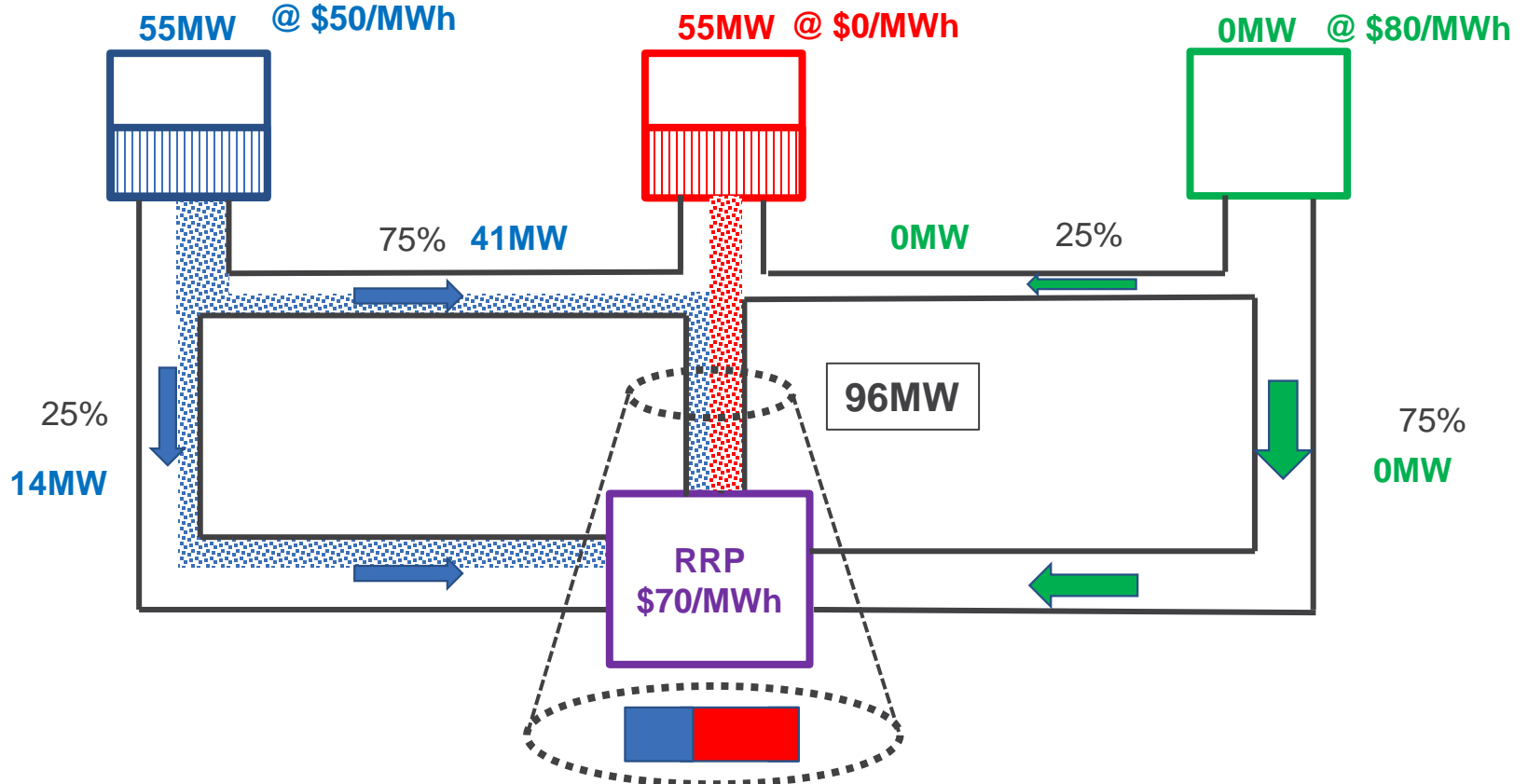


PRO RATA ACCESS



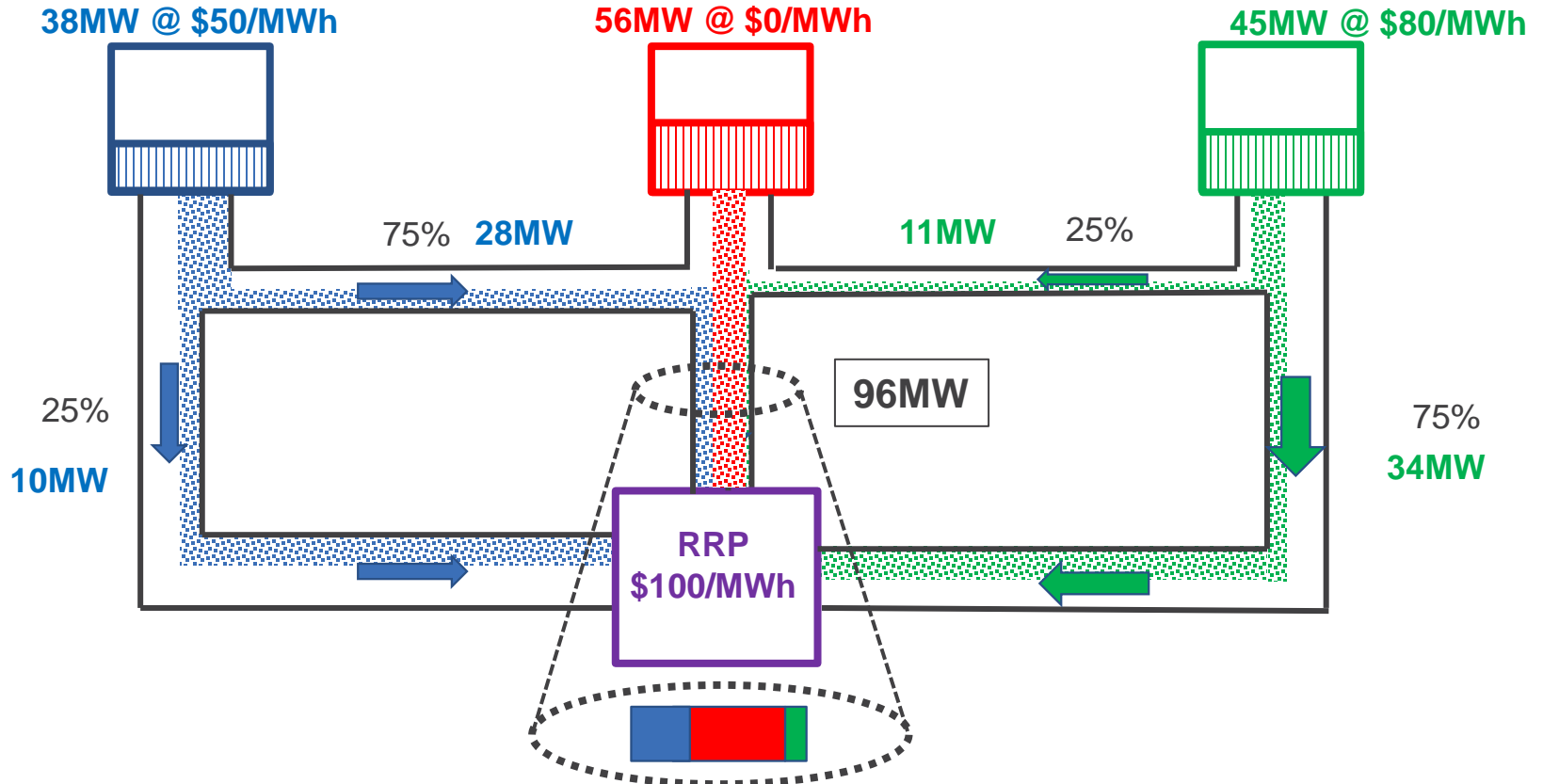


PRO RATA ACCESS: REMOVE OUT-OF-MERIT PLANT





SHARE THE PAIN: ENHANCED PRO RATA (PAIN = CMM PROFIT / UNCONSTR PROFIT)





ACCESS ALLOCATION SUMMARY

Allocation Method	Allocated Access		
Pro Rata Access	48	48	48
Enhanced Pro Rata ⁺	38	56	45
Pro Rata Entitlements	44	33	120
Winner Takes All	88	0	120
Inferred Economic Dispatch ⁺	0	96	0

(+) Assuming inferred operating costs and RRP = \$100



EFFECTIVE ACCESS

Allocation Method	Allocated Access			Effective Access ⁺⁺		
	Blue	Red	Green	Blue	Red	Green
Pro Rata Access	48	48	48	72	48	60
Enhanced Pro Rata ⁺	38	56	45	56	56	56
Pro Rata Entitlements	44	33	120	66	33	150
Winner Takes All	88	0	120	132	0	150
Inferred Economic Dispatch ⁺	0	96	0	0	96	0

(+) Assuming inferred operating costs and RRP = \$100

(*) Effective Access = 120MW x {profit under CMM / unconstrained profit}



EVALUATION CRITERIA

- *Simple*: easy to understand, model and implement
- *Grandfathers*: similar to today's dispatch access
- *Risk Sharing*: pool the congestion risks
- *Close to future dispatch*: to minimise LMP exposure
- *Stability in predispatch*: helps with bidding



EVALUATION MATRIX (INDICATIVE)

	PR A	Enh PR	PR E	WTA	IED
Simple/Transparent	✓	✗	?	?	✗
Grandfathering	✗	✗	?	✓	?
Risk Sharing	?	✓	?	✗	✗
Close to Dispatch	✗	✗	✗	?	✓
Stability in Pre-dispatch	✓	?	✓	✓	?



CONCLUSIONS

- Many allocation methods possible: any feasible dispatch will do
- No method ticks all the boxes
- Choose preferred method based on key objective