*Overall Flow Chart of the Study*

Validation

3 months GCMRC data

(04,05 & 06 of 2018)

GAMS simulation

MS-Excel (data formatting and Handling)

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1 hr Time step Simulation

2 periods Simulation (9-22 &22-9)

2 periods Simulation (4-9 & 9-4)

4 periods Simulation (0-5,5-10,10-14 & 14-0)

Results visualization (using Excel and R)

Scenarios optimization

14 months GCMRC data

(April 2018 to July 2019)

GAMS simulation

5 volume Scenarios

2 Extreme points plus 12 intermediate points scenarios

Partial Optimization (Bug flows) and Full optimization Cases

Results visualization i.e. Release Hydrograph and Energy Generation Plot (using Excel and R)

MS-Excel (data formatting and Handling)

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