

Performance Rating Calculation

SODRSTF

August 2, 2018

Skyler Marzewski



Monitoring Analytics

MMU Performance Rating

- **These slides present the performance rating calculation for the MMU proposed solution option.**
- **The MMU performance rating calculation uses the PLC as the target during triggered hours.**



MMU Performance Rating

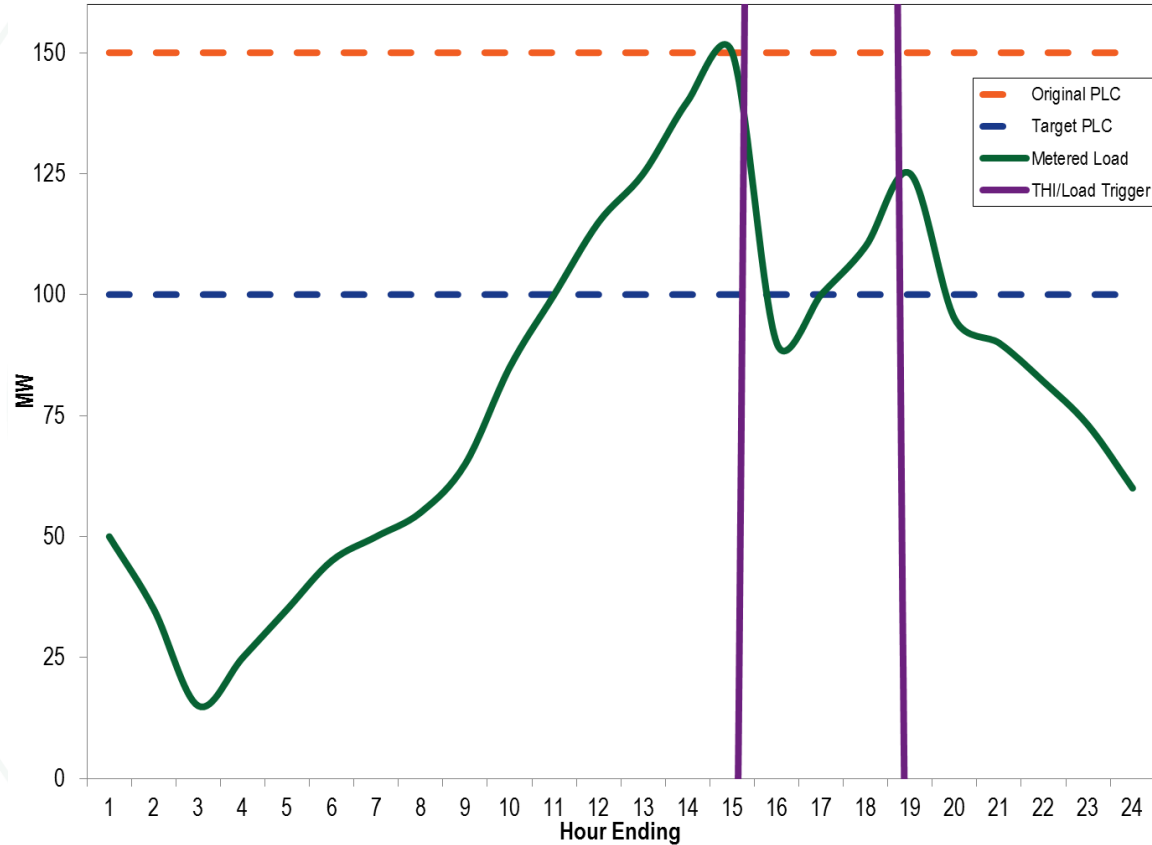
- Rolling average of performance rating for the three most recent years
- Hourly performance cannot exceed 100 percent
- Hourly shortfall is the maximum of the metered load minus the Target PLC, or 0
 - $Shortfall_{hour} = Max((Metered\ Load - Target\ PLC), 0)$
- Performance rating is one minus the average shortfall divided by the reduction in the forecast requirement
 - $Performance\ Rating = 1 - \frac{Avg\ Shortfall}{Forecast\ Reduction}$

Example

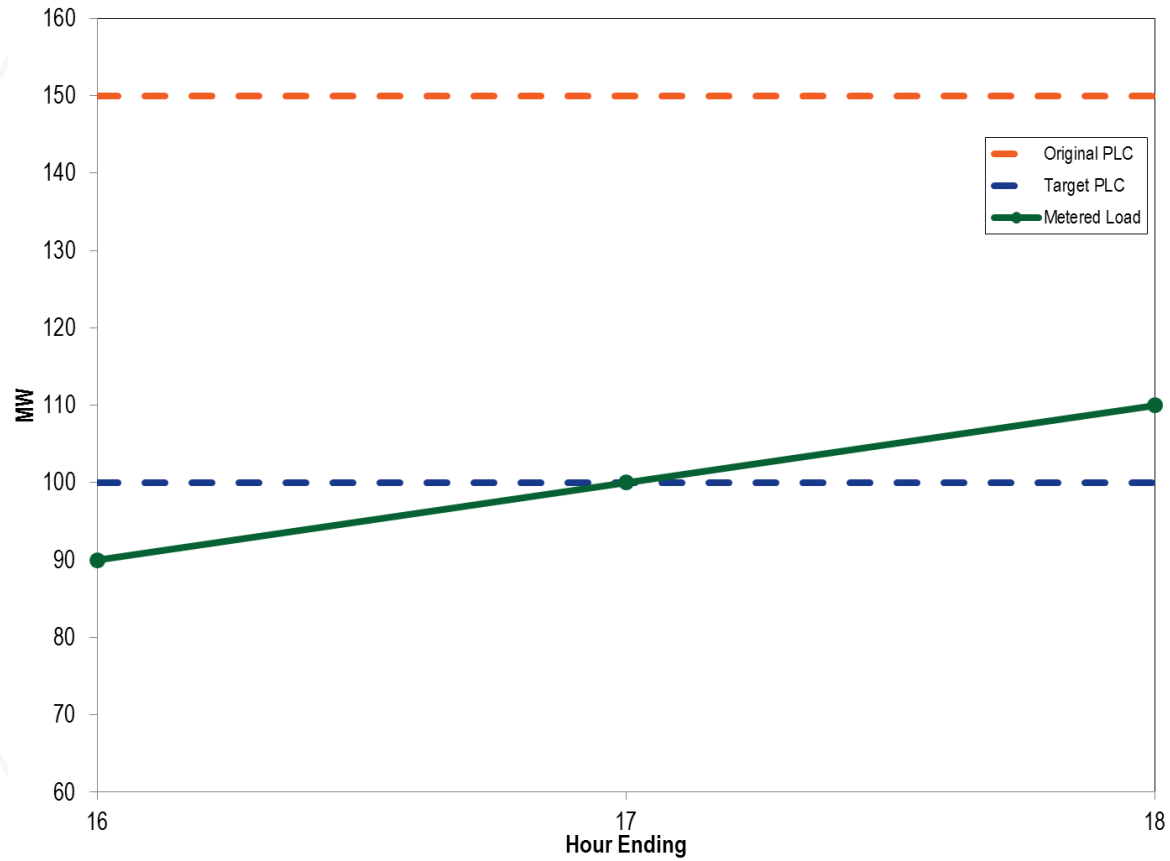
- **Original PLC requirement of 150 MW**
- **Program receives a 50 MW forecast reduction**
- **Target PLC is the original PLC minus the forecast reduction**
 - *Target PLC = Original PLC – Forecast Reduction*
 - *Target PLC = 150 MW – 50 MW = 100 MW*



Example day with trigger



Trigger Hours



Shortfall Calculation

- $Shortfall_{hour} = Max((Metered\ Load - Target\ PLC), 0)$
- $Shortfall_{16} = Max((90 - 100), 0) = Max(-10, 0) = 0\ MW$
- $Shortfall_{17} = Max((100 - 100), 0) = Max(0, 0) = 0\ MW$
- $Shortfall_{18} = Max((110 - 100), 0) = Max(10, 0) = 10\ MW$

Performance Calculation

- ***Performance Rating*** = $1 - \frac{\text{Avg Shortfall}}{\text{Forecast Reduction}}$
- ***Avg Shortfall*** = $\frac{0+0+10}{3} = 3.33 \text{ MW}$
- = $1 - \frac{3.33}{50} = 1 - 0.0667 = 93.33\%$

Monitoring Analytics, LLC

2621 Van Buren Avenue

Suite 160

Eagleville, PA

19403

(610) 271-8050

MA@monitoringanalytics.com

www.MonitoringAnalytics.com

