Springfield 230-69 kV Substation

Violation:
• Overload Summer Emergency Rating of Buxmont-Quakertown #1 & #2 69 kV lines upon contingency.
• A loss of either one of the Elroy transformers (500/138 kV T1 or 138/69 kV T2) loads the Buxmont 230-69 kV transformers to 94% of their one-month emergency rating.

Proposed Solution:
• Install new 230-69 kV Springfield Substation and connecting lines.

Scheduled In-Service Date: 12/31/2013
230 kV Network

Before Springfield Substation

After Springfield Substation

Energization date-
11/22/2013

Energization date-
12/31/2013

230-69 kV

T1 will be installed in 2018
Springfield Metering System

**M1**: Hosensack Meter (No Line Loss Compensation)

**M2**: Gilbert Meter (No Line Loss Compensation)

**M3**: Gilbert Meter (Meter is compensated for line losses between Springfield and Gilbert. Therefore, it is a virtualized metering point located at Gilbert (VM3)

**VM3**: This is a virtualized metering point that is physically located at Springfield, but includes compensation which virtually places the point at Gilbert