

# Submission of Supplemental Projects for Inclusion in the Local Plan

# EKPC Transmission Zone M-3 Process Marion Co New Customer Load

**Need Number:** EKPC-2020-001

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan 9/15/2020

**Previously Presented:**

Needs Meeting 1/17/2020

Solution Meeting 2/21/2020

Solution Meeting 5/22/2020 (2<sup>nd</sup> Review)

**Supplemental Project Driver:**

Customer Service

**Specific Assumption References:**

EKPC Assumptions Presentation Slide 11

**Problem Statement:**

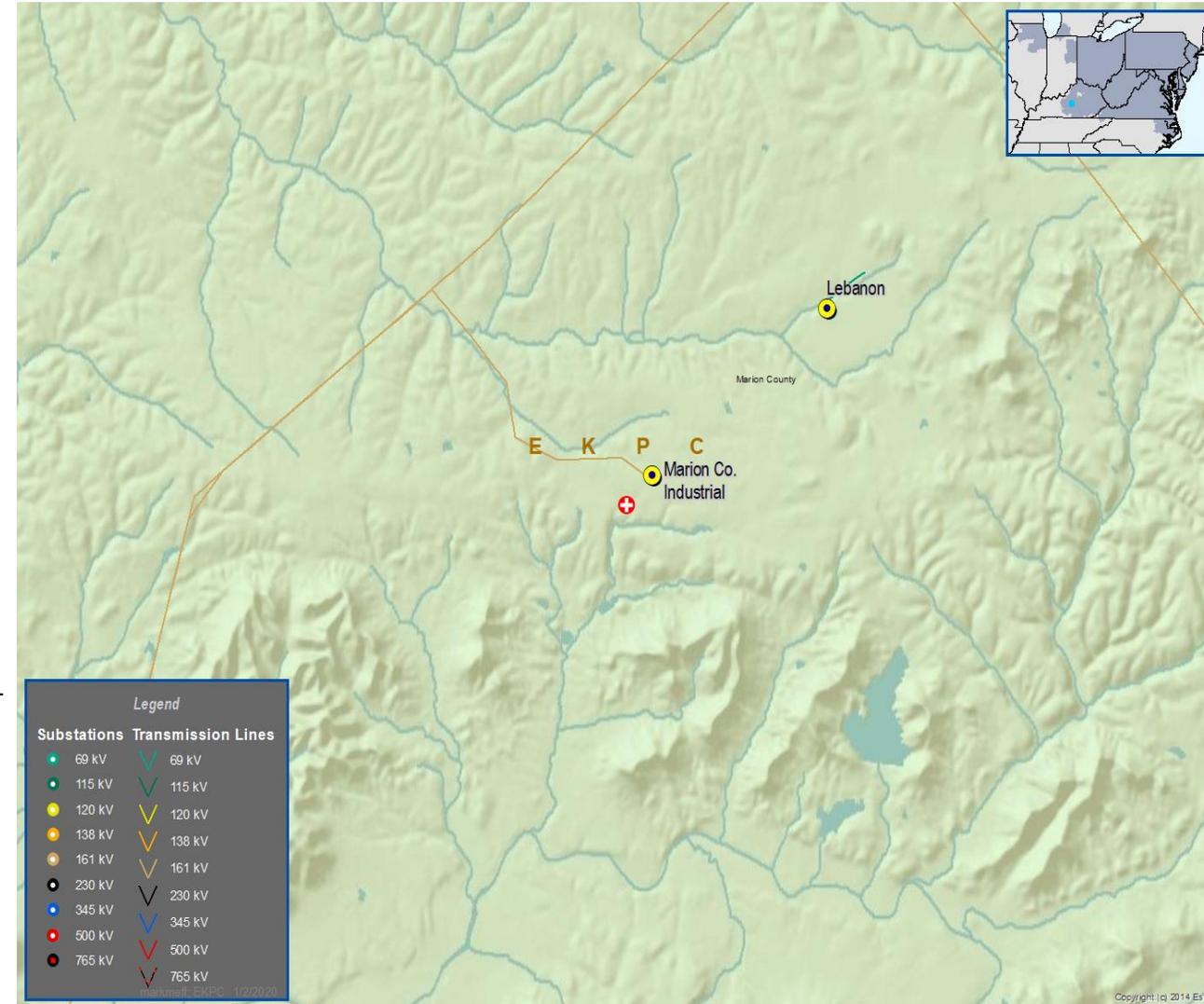
A new industrial customer has requested a new delivery point for a peak demand of 36 MW by 10/1/2020. The new delivery point is located in Marion Co, KY approximately 0.3 miles from EKPC's 161 KV transmission near the existing EKPC owned 161/24.9 KV Marion County Industrial Park distribution substation. The existing distribution infrastructure is not capable of serving this request.

Second Review: After additional DNH study by PJM, the Marion Co-Marion IP tap 161 KV line is overloaded in the N-1-1 study (The line loading is still 110% of Normal Rating, 84 MVA, after system adjustment after the loss of Green Co-Summer Shade 161 KV line). Currently the Marion Co-Marion Co IP T 161 KV line has a maximum operating temperature of 142F. This line is limited by a distribution line crossing.

Current summer ratings:

Rate A : 84 MVA Rate B : 131 MVA

**Model:** N/A



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**Selected Solution:**

Build a new dual transformer 161/13.8 KV 50 MVA distribution station (South Marion County Industrial) and associated 0.25 mile 161 KV line tapping the existing Marion County Industrial 161 KV tap line.

Distribution cooperative will lower distribution line to allow adequate clearance for the Marion Co-Marion Co Industrial Tap 161 KV line to achieve a maximum operating temperature of 167F to match the rest of the line section.

-S2287

New summer ratings

Rate A : 186 MVA    Rate B : 210 MVA

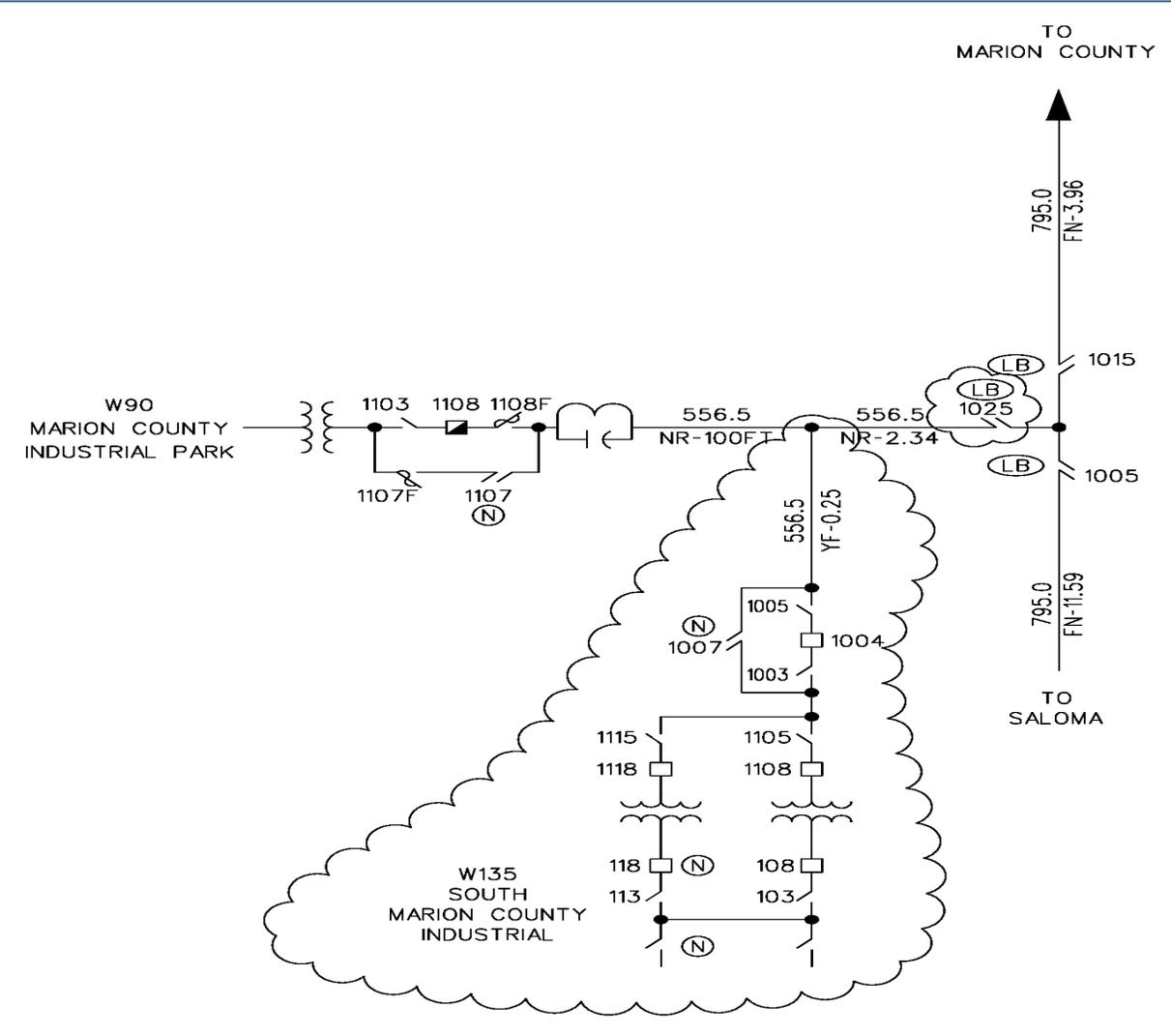
Transmission Cost: None

Distribution Cost: \$6.01M

**Projected In-Service:** 6/1/2021

**Supplemental Project ID:** S2287

**Project Status:** Engineering



# Revision History

9/15/2020 – V1 – Added S2287