

**GPU Solutions for PSCAD: IT17112**

Reporting Period	March 28, 2020 - April 2, 2020
Activities	<ul style="list-style-type: none"><li>• Added timing functions to GPU factoring, GPU solving to generate new timing sets</li><li>• Added check macro for comparing GPU result with CPU result</li><li>• Collected new timings for Debug build with six sample data sets on laptop (NVIDIA Quadro TRX 3000)</li><li>• QR factorization time: <math>\sim 11\text{ms}</math></li><li>• Average QP solve time (per time step): <math>\sim 2.4\text{ms}</math></li></ul>
Issues	<ul style="list-style-type: none"><li>• None</li></ul>
Milestones Accomplished	<ul style="list-style-type: none"><li>• Collected timings for single time step solve and QR factoring</li></ul>
Milestones Not Accomplished	<ul style="list-style-type: none"><li>• None</li></ul>
Next Week's Milestones	<ul style="list-style-type: none"><li>• Run new code version on all <i>Province</i> data</li></ul>
Forwarded Issues	<ul style="list-style-type: none"><li>• None</li></ul>