# Interconnection Feasibility/System Impact Study Report
# Request # GI-2011-07

200 MW Wind Turbine Generation
(In addition to GI-2011-02 – 200 MW)
Near Limon, Colorado

Public Service Company of Colorado
Transmission Planning
**January 19, 2012**

## A. Executive Summary

Public Service Company of Colorado (PSCo) received an interconnection request (GI-2011-07) for a 200 MW wind turbine generation facility to be located approximately 4 miles northeast of Limon, Colorado. This facility is adjacent to and south of the Customer's GI-2011-02 facility. The interconnection request was received August 24, 2011.

The wind generation facility will consist of 125 1.6 MW GE xle wind turbine generators with Zero Voltage Ride Through (ZVRT) capability and GE's WindFree option for supplying or absorbing reactive power below the wind cut-off speed. This facility will interconnect with the PSCo system at the proposed Missile Site 345 kV line via a Customer owned 7 mile 345 kV line from GI-2011-7 to the Customer owned GI-2011-2 project, and then to the Missile Site 345 kV substation via the Customer owned 40 mile 345 kV line (see Figures 1 & 2 below). The requested in-service date is December 31, 2012. Therefore, the studies examined system performance for 2013 heavy summer conditions.

The request was studied as a stand-alone project only, without including other new generation interconnection requests that may exist in the Large Generator Interconnection Request (LGIR) queue, but including the generation interconnection projects that are already planned to be in service by December 31, 2012. The main purpose of this Feasibility/System Impact Study was to evaluate the potential impact on the PSCo transmission infrastructure as well as that of neighboring utilities when injecting the additional 200 MW of generation at the proposed Missile Site 345 kV substation, and delivering the additional generation to native PSCo loads.

This request was studied as a Network Resource Interconnection Service and an Energy Resource Interconnection Service. These investigations included power flow, short circuit, and dynamic stability analyses. These analyses included both NERC Category B and NERC Category C contingencies.

The results of the Category B contingency power flow thermal studies for 2013 heavy summer analyses showed no overloads that could be attributed to the proposed wind plant. The voltage analysis also showed no problems due to the wind plant.

The results of the PSCo Category C contingency thermal analysis showed one PSCo overloaded line that could be attributed to the proposed wind plant. However, the emergency rating of this line should allow for transmission operator system adjustments to relieve the overload. The voltage analysis also showed no problems.

In addition, the short circuit analysis showed no new over-dutied circuit breakers due to the installation of the proposed wind farm.

The transient stability study determined that the system remains stable during and after each contingency studied and all system oscillations display positive damping such that oscillations decrease quickly. For all of the contingencies studied, there was no tripping of wind turbines either with or without the proposed GI-2011-2.

Network Resource Interconnection Service (NRIS)

Since the analyses found no thermal, voltage, short circuit, or stability problems that could be attributed to the proposed wind plant, the Network Resource Interconnection Service was not restricted: Therefore,

**NRIS = 200 MW + 200MW for GI-2011-2**

**or**

**NRIS = 400 MW (combined)**

Note that PSCo is planning to be able to accommodate the December 31, 2012 requested in service date.

Energy Resource Interconnection Service (ERIS)

Since the analyses found no thermal, voltage, short circuit, or stability problems that could be attributed to the proposed wind plant, the Energy Resource Interconnection Service was not restricted: Therefore,

**ERIS = 200 MW + 200MW for GI-2011-2**

**or**

**ERIS = 400 MW (combined)**

**Figure 1 Missile Site Substation and Surrounding Transmission System**

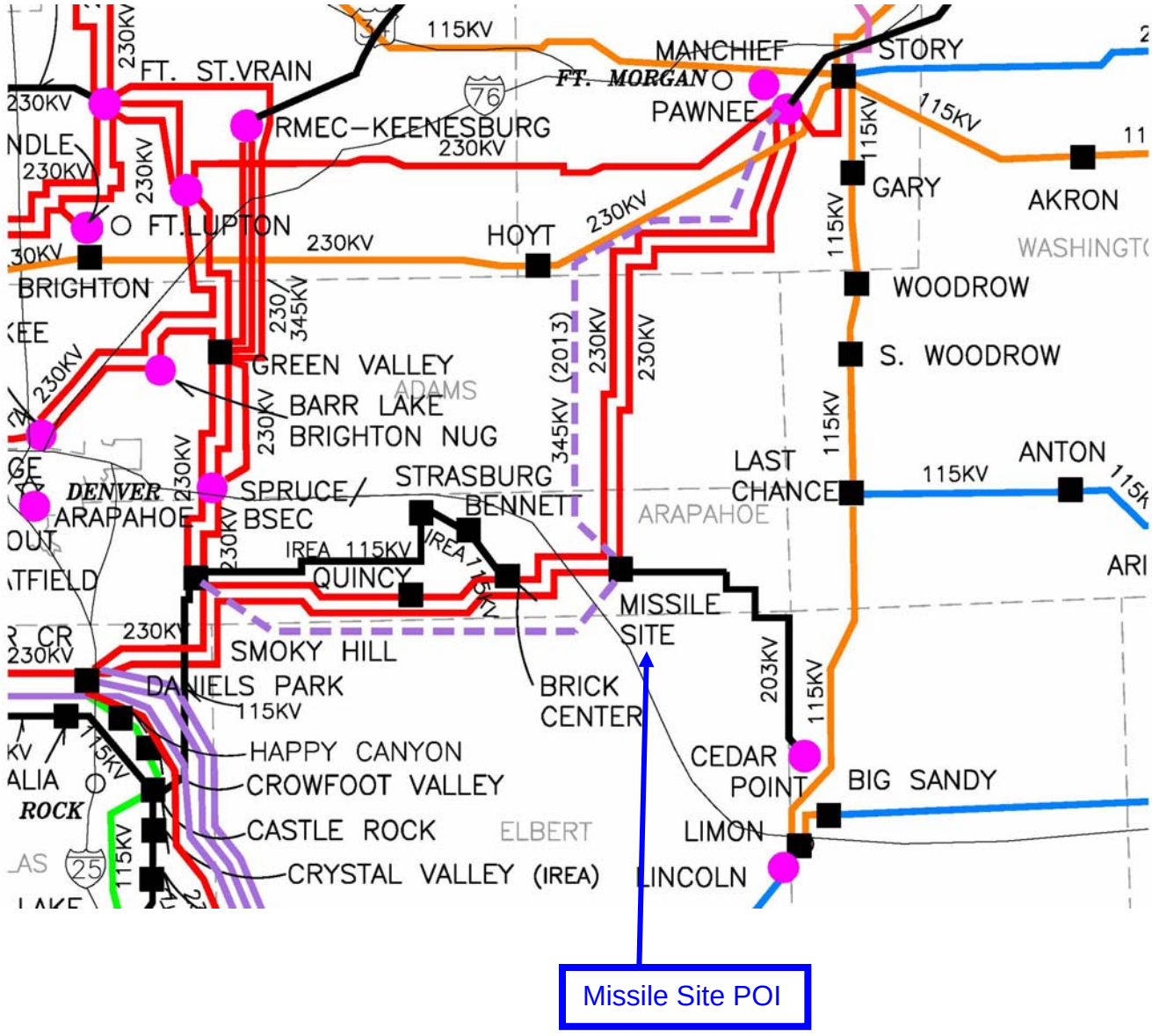
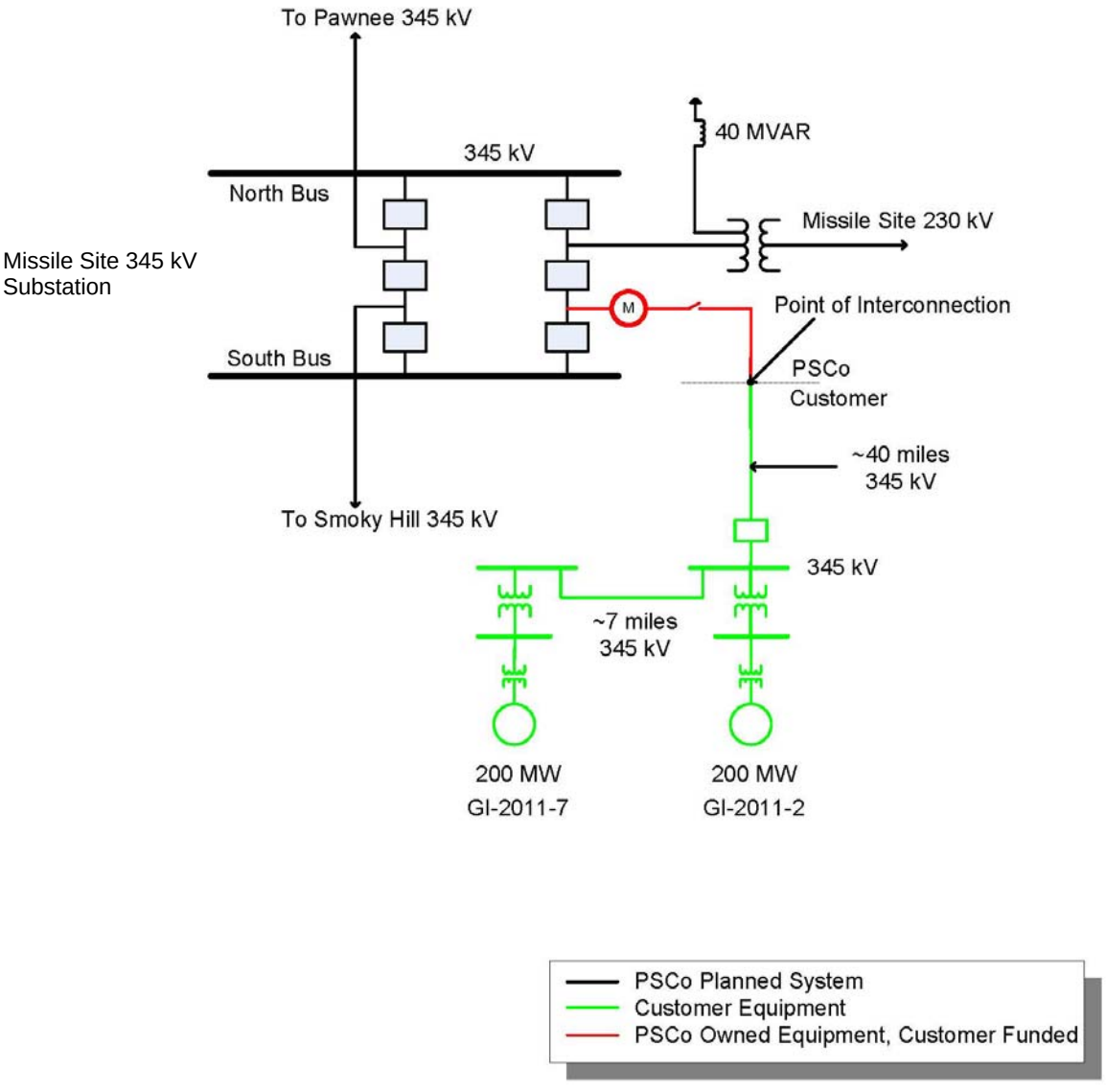


**Figure 2: GI-2011-7 Conceptual Diagram**



## B. Introduction

Public Service Company of Colorado (PSCo) received an interconnection request (GI-2011-07) for a 200 MW wind turbine generation facility to be located approximately 4 miles northeast of Limon, Colorado. This facility is adjacent to and south of the Customer's GI-2011-2 facility. The interconnection request was received August 24, 2011.

The wind generation facility will consist of 125 1.6 MW GE xle wind turbine generators with Zero Voltage Ride Through (ZVRT) capability and GE's WindFree option for supplying or absorbing reactive power below the wind cut-off speed. This facility will interconnect with the PSCo system at the proposed Missile Site 345 kV line via a Customer owned 7 mile 345 kV line from GI-2011-7 to the Customer owned GI-2011-2 project, and then to the Missile Site 345 kV substation via the Customer owned 40 mile 345 kV line (see Figures 1 & 2 below). The requested in-service date is December 31, 2012. Therefore, the studies examined system performance for 2013 heavy summer conditions.

## C. Study Scope and Analysis

The Feasibility/System Impact Study evaluated the transmission impacts associated with the proposed wind farm. It consisted of power flow, short circuit, and dynamic analyses.

The power flow analysis identified any steady-state thermal or voltage limit violations resulting from the installation of the proposed wind farm and an identification of network upgrades required to deliver the proposed generation to PSCo loads. The transient stability analysis determined the response of the power system to system disturbances in the area around the POI.

PSCo adheres to NERC & WECC Reliability Criteria, as well as internal Company criteria for planning studies. During system intact conditions, criteria are to maintain transmission system bus voltages between 0.95 and 1.05 per unit of nominal, and steady-state power flows below the thermal ratings of all facilities. Operationally, PSCo tries to maintain a transmission system voltage profile ranging from 1.02 per unit or higher at regulating (generation) buses to 1.0 per unit or higher at transmission load buses. Following a single contingency, transmission system steady state bus voltages must remain within 0.90 per unit to 1.05 per unit, and power flows within 100% of the facilities' continuous thermal ratings.

This interconnection request was studied both as a Network Resource Interconnection Service (NRIS) and Energy Resource Interconnection Service (ERIS).

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as all other Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or non-firm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

For this project, there were no Affected Parties.

## D. Power Flow Study Models

The power flow studies were based on the WECC approved 12HS3SAP case. PSCo loads in the case were adjusted to reflect the most recent (September 2011) PSCo load forecast. IREA load was also adjusted to reflect IREA's latest load forecast. The topology was also updated to reflect current project plans. Updates were included for the PSCo, IREA, CSU, TSG&T, WAPA, PRPA, BHE, and BEPC systems.

The PSCo updates included the addition of the Pawnee-Missile Site-Smoky Hill 345 kV circuit and addition of the Pawnee, Comanche and Daniels Park 345 kV 40 Mvar reactors. These reactors were modeled as normally out of service. The updates also included a more detailed representation of the existing Missile Site 230 kV wind farm, the new 230/115 kV, 280 MVA transformer #2 at Chambers, line ratings changes, and new distribution transformers at the Jewell 230 kV and Federal Heights 230 kV split substations. Additional updates were included for equipment changes further from the study area.

Two main power flow generation dispatch scenarios were evaluated. One was created as a reference scenario and the other was created with the proposed generation, including both GI-2011-2 and GI-2011-7.

To assess the impact of the proposed generation on the transmission system, the generation levels were increased at the existing and planned PSCo-connected wind generating plants, including Peetz Logan (21% of max), Cedar Creek (21% of max), and Missile Site (77% of max). The PSCo thermal units were dispatched according to their relative generation costs. The resulting PSCo generation dispatch can be found in Appendix B.

The Area 70 (Area PSCOLORADO) swing machine in the WECC load flow case was moved to Comanche Unit 1. In addition, the flow through the TOT 3 interface was 1326.9 MW without the proposed generation and 1320.1 MW with the proposed generation. Also, the flow through the TOT 7 interface was 199.6 MW without the proposed generation and 223.1 MW with the proposed generation.

In the case with the proposed generation, the 200 MW of new wind turbine generation, plus the additional 200 MW from GI-2011-02 were added to the Missile Site 345 kV bus using modeling information provided by the customer. This information was converted to single generator equivalents that included the 345 kV lines, 34.5/345 kV main step-up transformers, equivalent 34.5 kV collector system branches, and equivalent 0.69/34.5 kV generator step-up transformers. The main step-up transformer taps were set to the 345 kV tap and the generator step-up transformers were set to the 35.3625 kV (1.025 pu) tap. These taps are consistent with the data provided by the Customer. The reactive capability of the generators was set to +/-0.0 Mvar The generation dispatch with the new wind farm can also be found in Appendix B.

## E. Power Flow Study Process

Contingency power flow studies were completed on the reference model and the model with the proposed new generation using PTI's PSSE Ver. 32.1.0 and MUST Ver. 10.1 programs. Results from the two cases were compared and new overloads or overloads that increased significantly in the new generation case were noted. Voltage criteria violations were also recorded. MUST's contingency analysis activities were used to perform the load flow contingency analysis. The PSCo Category B & C analysis was performed using contingency definitions that reflect breaker to breaker outages. Single branch switching was also performed for branches in Zones 700, 703, 704, 706, 752, and 754 (central, north-central, northeast, and east-central Colorado). Single unit outages were also modeled for generators in Area 70. The facilities in Zones 700, 703, 704, 706, 752, and 754 were monitored for overloads and voltage problems.

## F. Power Flow Thermal Results

The results of the Category B contingency analyses showed no facilities with overloads that could be attributed to the proposed wind plant.

The results of the Category C contingency analyses showed one facility with an overload that could be attributed to the proposed wind plant. The Coors Recycling-Ft Lupton 115 kV line was overloaded for the double circuit tower outage of the Isabelle-Ft St Vrain 230 kV and Valmont-Spindle 230 kV lines. This circuit was overloaded 102.7% of its 120 MVA summer rating (123.3 MVA or 619 A). This line is limited by the 600 A breaker switches and 300 MCM Cu jumpers at the Ft Lupton 115 kV substation.

The emergency rating for this circuit is 144 MVA due to the 300 MCM Cu jumpers at the Ft Lupton 115 kV substation. This is a 4 hour rating, so transmission operators should be able to alleviate the overload through transmission system sectionalizing and/or generation redispatch.

## G. Voltage Regulation and Reactive Power Capability

Interconnection Customers are required to interconnect their Large Generating Facilities with Public Service of Colorado's (PSCo) Transmission System in conformance to the *Xcel Energy Interconnection Guidelines for Transmission Interconnected Producer-Owned Generation Greater Than 20 MW* (available at http://www.xcelenergy.com/staticfiles/xe/Regulatory/Transmission-Interconnection-Guidelines-Great-20MW.pdf). Wind generating plant interconnections must also conform to the performance requirements in FERC Order 661-A. Accordingly, the following voltage regulation and reactive power capability requirements (at the POI) are applicable to this interconnection request:

- To ensure reliable operation, all Generating Facilities interconnected to the PSCo transmission system should adhere to the Rocky Mountain Area Voltage Coordination Guidelines. Accordingly, since the POI for this interconnection request is located within Northeast Colorado Region 7; the applicable ideal transmission system voltage profile range is 1.02 – 1.03 per unit at regulated buses and 1.0 – 1.03 per unit at non-regulated buses.
- Xcel Energy's OATT requires all Interconnection Customers to have the reactive capability to achieve +/– 0.95 power factor at the POI, with the maximum "full output" reactive capability available at all output levels. Furthermore, Xcel Energy requires all Interconnection Customers to have dynamic voltage control and maintain the voltage specified by the Transmission Operator within the limitation of +/– 0.95 power factor at the POI, as long as the generating plant is on-line and producing power.
- It is the responsibility of the Interconnection Customer to determine the type (switched shunt capacitors and/or switched shunt reactors, etc.), the size (MVAR), and the locations (34.5 kV or 345 kV bus) of any additional static reactive power equipment needed within the generating plant in order to have the reactive capability to meet the +/– 0.95 power factor and the 1.02 – 1.03 per unit voltage range standards at the POI. Further, for wind generating plants to meet the LVRT performance requirements specified in FERC Order 661-A, appropriately sized and located reactive power compensation devices (capacitor, DVAR, SVC, etc.) may need to be installed within the generating plant.
- The Interconnection Customer is required to demonstrate to the satisfaction of PSCo Transmission Operations prior to the commercial in-service date of the

generating plant that it can safely and reliably operate within the required power factor and voltage ranges (noted above).

This study examined the ability of the proposed wind plant to adhere to the power factor and reactive power requirements of the interconnection guidelines. The analyses showed that with all facilities in service but 0 MW of generation from the wind generators, there are approximately 69.5 Mvars of line charging injected at the Missile Site 345 kV point of interconnection (POI) with the voltage at 1.038pu. This is equivalent to 64.6 Mvars at 1.000 pu voltage. Therefore, at least 64.6 Mvars of reactive absorption capability must be provided by the generator in order to compensate for the wind plant line charging to obtain Unity Power Factor at the Missile Site 345 kV POI.

With all facilities in service and 400 MW of generation from the wind generators, there are approximately 32.8 Mvars of reactive losses absorbed from the Missile Site 345 kV point of interconnection (POI) with the voltage at 1.023pu. This is equivalent to 29.7 Mvars at 1.000 pu voltage. Therefore, at least 29.7 Mvar of reactive support capability must be provided by the generator in order to compensate for the wind plant reactive losses to obtain Unity Power Factor at the Missile Site 345 kV POI.

The Customer will need to perform additional studies to determine the capabilities, optimum location(s) and configuration(s) for the reactive compensation required to meet the +/– 0.95 power factor standard at the POI.

## H. Dynamic Stability Analysis –Models

### H.1 Modeling of Proposed Wind Generating Plant Expansion

GI-2011-7 is comprised of 125 GE 1.6 MW wind turbine generators (WTGs) equipped with Zero Voltage Ride-Through (ZVRT) capability. The proposed facility was modeled in detail with each GE WTG represented as individual generators. Each generator was modeled at 0.69 kV and connected through a generator step-up transformer to the 34.5 kV collector system. The 34.5 kV collector system at the GI-2011-7 site consists of 10 circuits connected to a 345/34.5 kV substation. All of these circuits were represented in detail. The wind farm is connected to the 345 kV bus at GI-2011-2 through a 7 mile 345 kV transmission line and then connected to the 345 kV bus at Missile Site through the 40 mile 345 kV transmission line that is part of the GI-2011-2 project. A 20 Mvar reactor was connected to the 34.5 kV bus of the main transformer at the proposed GI-2011-7 site and was modeled in-service in all of the simulations.

### H.2 Modeling of Prior Proposed Wind Generating Plant

- GI-2011-2 – comprised of 125 GE 1.6 MW wind turbine generators (WTGs) equipped with Zero Voltage Ride-Through (ZVRT) capability. The same models were used in this analysis as those used in the dynamic stability analysis for the GI-2011-2 project. The wind farm is connected to the 345 kV bus at Missile Site through a 40 mile 345 kV transmission line. A 20 Mvar reactor was connected to the 34.5 kV bus of the main transformer and was modeled in-service in all of the simulations.

### H.3 Modeling of Existing Wind Generating Plants

- Peetz Logan Wind Energy Plant (575 MW) – consists of GE 1.5 MW WTGs with LVRT 2 (Peetz Table and Logan), and GE 1.5 MW WTGs with ZVRT and Siemens SMK 2.03 2.3 MW WTGs with LVRT. The same models were used in this analysis as those used in the dynamic stability analysis for the GI-2006-2 project (Siemens PTI report R96-09, Peetz–Logan Wind Farm Expansion Request # GI-2006-2 Dynamic Analysis – Restudy with Siemens and GE WTGs, July 02, 2009.)
- Cedar Point Wind Energy Plant (250 MW) – consists of Vestas V90 1.80 MW WTGs with LVRT. This wind farm was modeled with GE 1.5 MW WTGs with LVRT 2 as two aggregated machines in the dynamic stability analysis. A 10 Mvar DSTATCOM was modeled at the collection feeder of this wind farm.
- Cedar Creek Wind Energy – Phase 1 (CCWE-1) Plant (300 MW) – consists of GE 1.5 MW WTGs with LVRT 2 and Mitsubishi WTGs. This wind farm was modeled with GE 1.5 MW WTGs with LVRT 2 as two aggregated machines in the dynamic stability analysis.
- Cedar Creek Wind Energy – Phase 2 (CCWE-2) Plant (250 MW) – consists of GE 1.5 MW WTGs with LVRT 2 and Nordex WTGs. This wind farm was modeled with GE 1.5 MW WTGs with LVRT 2 as two aggregated machines in the dynamic stability analysis.

Note that due to availability and/or data problems associated with proprietary models for certain manufacturer's wind turbines, the models used to represent the Cedar Creek and Cedar Point wind farms are standard models selected to be representative of the type of turbines installed at these wind farms.

## I. Dynamic Stability Analysis – Results

The transient stability analysis determines the response of the power system to system disturbances such as the occurrences of faults, tripping of generator units, tripping of transmission lines or tripping of loads in the area around the POI. These studies evaluate generator frequency, generator rotor angles, bus voltages and power flows

before, during and after a disturbance to determine if the system remains stable after the disturbance. In addition FERC 661A requires the wind powered generators to remain on-line during a disturbance up to the time periods and voltage levels set in the Low Voltage Ride-Through (LVRT) capability standard.

Transient stability analysis was performed for a number of three-phase faults and single line to ground faults near the GI-2011-7 including Missile Site 345 kV and Pawnee 230 kV, as shown in Table 6. Normal fault clearing times of 6 cycles for 230 kV facilities and 5 cycles for 345 kV facilities were used in this study. For each of these contingencies, a specified fault type was applied for the specified cycles and appropriate action was taken to clear the fault. This procedure was performed for both cases with and without the proposed generation. For the disturbances with breaker failure the clearing time considered was 20 cycles, and when simulating a protection system failure the considered clearing time was 21 cycles.

The results of the dynamic stability analysis, presented in Table 6, for the 2013 case indicate that the system remains stable during and after each contingency studied and all system oscillations damp out appropriately. For all of the contingencies studied, there was no tripping of wind turbines either with or without the proposed GI-2011-7.

## J. Short Circuit

For the Customer proposed interconnection at the Missile Site 345 kV POI, no new circuit breakers on the PSCo system are expected to exceed their capabilities following installation of the new generation. The calculated short circuit parameters for the POI at the Missile Site 345 kV substation are shown in Table 1 below.

Please note that for the breaker duty calculations, the wind plant was modeled as a generator with an Xd" = 0.333 pu at the 34.5 kV low side of the main 345/34.5 kV step up transformer.

**Table 1 – Short Circuit Parameters at the Missile Site 345 kV POI**

| System Condition | Three-Phase Fault Level (Amps) | Single-Line-to-Ground Fault Level (Amps) | Thevenin System Equivalent Impedance (R +j X) (ohms) |
|---|---|---|---|
| All Facilities in Service w/ GI-2011-2 & GI-2011-7 | 12870.3 | 10892.3 | Z1(pos)= 1.23416 +j 18.7886<br>Z2(neg)= 1.26379 +j 18.7871<br>Z0(zero)= 4.20723 +j 24.0597 |
| All Facilities in Service w/o GI-2011-2 & GI-2011-7 | 10578.6 | 8797.22 | Z1(pos)= 1.23416 +j 18.7886<br>Z2(neg)= 1.26379 +j 18.7871<br>Z0(zero)= 4.99399 +j 29.9356 |
| Missile Site – Smoky Hill 345 kV out w/o GI-2011-2 & GI-2011-7 | 6632.11 | 5508.86 | Z1(pos)= 2.05546 +j 29.9632<br>Z2(neg)= 2.06487 +j 29.9732<br>Z0(zero)= 8.77847 +j 47.7660 |
| Missile Site – Pawnee 345 kV out w/o GI-2011-2 & GI-2011-7 | 7793.67 | 6816.82 | Z1(pos)= 1.77746 +j 25.4955<br>Z2(neg)= 1.82110 +j 25.4856<br>Z0(zero)= 2.58331 +j 36.4600 |
| Missile Site 345/230 kV Auto out w/o GI-2011-2 & GI-2011-7 | 8188.80 | 6512.68 | Z1(pos)= 1.50499 +j 24.2776<br>Z2(neg)= 1.54236 +j 24.2752<br>Z0(zero)= 8.45792 +j 42.4760 |

## K. Costs Estimates and Assumptions

GI-2011-2 & GI-2011-7 (Feasibility/System Impact Study Report)
[These estimates are for the same equipment as was specified in the GI-2011-2 Feasibility/SIS report.]
October 6, 2011

Appropriation level cost estimates for Interconnection Facilities and Network/Infrastructure Upgrades for Delivery (+/- 20% accuracy) were developed by Xcel Energy/PSCo Engineering staff. The cost estimates are in 2011 dollars with escalation and contingencies applied (AFUDC is not included) and are based upon typical construction costs for previously performed similar construction. These estimated costs include all applicable labor and overheads associated with the engineering, design, material/equipment procurement and construction of these new PSCo facilities. This estimate does not include the cost for any other Customer owned equipment and associated design and engineering.

The estimated total cost for the required upgrades for is **$3,970,000.** The diagram in Appendix E below represents a conceptual one-line of the proposed expansion/interconnection at the Missile Site 345kV Substation. These estimates do not include costs for any other Customer owned equipment and associated design and engineering. The following tables list the improvements required to accommodate the interconnection and the delivery of the Project generation output. The cost responsibilities associated with these facilities shall be handled as per current FERC guidelines. System improvements are subject to change upon a more detailed and refined design.

**Table 2 – PSCo Owned; Customer Funded Transmission Provider Interconnection Facilities**

| Element | Description | Cost Est. (Millions) |
|---|---|---|
| **PSCo's Missile Site 345kV Transmission Substation** | Interconnect Customer to the 345kV bus at the Missile Site Substation. The new equipment includes:<br>• One 345kV, 3000 amp gang switch<br>• Three 345kV metering CT's<br>• Three 345kV metering CCVT's<br>• Three 345kV lightning arresters<br>• Associated electrical equipment, bus, wiring and grounding<br>• Associated foundations and structures<br>• Associated transmission line communications, fiber, relaying and testing. | **$1.77** |
| | **Total Cost Estimate for PSCo-Owned, Customer-Funded Interconnection Facilities** | **$1.77** |
| **Time Frame** | **Design, procure and construct** | **10 Months** |

**Table 3: PSCo Owned; PSCo Funded Interconnection Network Facilities**

| Element | Description | Cost Estimate (Millions) |
|---|---|---|
| **PSCo's Missile Site 345kV Transmission Substation** | Interconnect Customer to the 345kV bus at the Missile Site Substation. The new equipment includes:<br>• Three 345kV, 3000 amp circuit breakers<br>• Four 345kV, 3000 amp gang switches<br>• Associated station controls, communications, supervisory and SCADA equipment<br>• Associated electrical equipment, bus, wiring and grounding<br>• Associated foundations and structures<br>• Associated equipment and system testing<br>• Associated yard surfacing and fencing | **$2.20** |
| | **Total Cost Estimate for PSCo-Owned, PSCo-Funded Interconnection Facilities** | **$2.20** |
| **Time Frame** | **Design, procure and construct** | **10 months** |

**Table 4 – PSCo Network Upgrades for Delivery**

| Element | Description | Cost Est. (Millions) |
|---|---|---|
| | Not Applicable | |
| | | |
| | **Total Cost Estimate for PSCo Network Upgrades for Delivery** | **$0** |
| | | |
| | **Total Project Estimate** | **$3.97** |

**Cost Estimate Assumptions**

- Appropriation level cost estimates for Interconnection Facilities and Network/Infrastructure Upgrades for Delivery (+/- 20% accuracy) were developed by Xcel Energy/PSCo Engineering staff.
- Estimates are based on 2011 dollars (appropriate contingency and escalation applied).
- AFUDC has been excluded.
- Engineering will be performed in house.
- Lead times for materials were considered for the schedule.
- The Wind Generation Facility is not in PSCo's retail service territory.
- PSCo (or it's Contractor) crews will perform all construction, wiring, testing and commissioning for PSCo owned and maintained facilities.
- Construction labor is estimated for straight time only – no overtime included.
- The estimated time to design, procure and construct the interconnection facilities is approximately 10 months after authorization to proceed has been obtained.
- Authorization to proceed is considered to be the Engineering & Procurement (E&P) Agreement between PSCo and the Customer, based on the assumption that the E&P Agreement will be approved by FERC by late-October 2011.
- This project is completely independent of other queued projects and their respective ISD's.
- A CPCN is not required for the interconnection facilities construction.
- Line and substation bus outages will be authorized during the construction period to meet requested backfeed dates.

# Appendix

## GI-2011-07
## Missile Site 345 kV – 200 MW (+200 MW)

A. Load Flow Thermal Results

**Table 5 – Summary Listing of Overloaded Facilities (Category C Contingencies)**

| | | | | Branch Contingency Loading Without GI-2011-07 & GI-2011-02 | | Branch Contingency Loading With GI-2011-07 & GI-2011-02 | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Monitored Facility (Line or Transformer)** | **Type** | **Line Owner** | **Branch Rating MVA** | **N-1 Flow in MVA** | **N-1 Flow in % of Rating** | **N-1 Flow in MVA** | **N-1 Flow in % of Rating** | **% Change** | **NERC Category C Contingency Outage** |
| Coors Recycling – Ft Lupton 115 kV | LN | PSCo | 120 | 118.8 | 99.0 | 123.3 | 102.7 | 3.7 | Isabelle – Ft St Vrain 230 kV<br>Valmont – Spindle 230 kV |
| | | | | | | | | | |

B. Generation Dispatch

**Case:** 2013 HS, Missile Site 230 kV Wind at 100% of rated, Peetz Logan Wind at 77% of Rated, based on WECC 12hs3sap.sav including updates from CCPG companies.

Benchmark Case – GI-2011-02/07 (no wind at Missile Site 345 kV)

| | |
|---|---|
| Arapahoe Unit 3 | 48 MW |
| Arapahoe Unit 4 | 118 MW |
| Cabin Creek Units | 210 MW |
| Cherokee Units 1 & 2 | 0 MW |
| Cherokee Unit 3 | 165 MW |
| Cherokee Unit 4 | 383 MW |
| Comanche Unit 1 | 360 MW |
| Comanche Unit 2 | 365 MW |
| Ft Lupton Units 1 & 2 | 0 MW |
| Pawnee Unit 1 | 536 MW |
| Manchief Units 1 & 2 | 0 MW |
| FSV Units 1-4 | 700 MW |
| Valmont Unit 5 | 196 MW |
| Valmont Unit 6 | 0 MW |
| QF Thermo | 129 MW |
| Brush Units 1, 3, & 4 | 0 MW |
| Brush Unit 2 | 70 MW |
| QF UNC | 65 MW |
| Arapahoe Units 5-7 | 0 MW |
| Valmont Units 7 & 8 | 0 MW |
| Lamar DC Tie | 210 MW Export to SPS |
| Spruce Units 1 & 2 | 282 MW |
| Brighton Units 1 & 2 | 95 MW |
| Fountain Valley Units | 0 MW |
| Plains End Units | 227.6 MW |
| RMEC Units 1-3 | 615 MW |
| Spindle Units 1 & 2 | 278 MW |
| Missile Site 230 kV | 192.7 MW (77%) |
| Peetz Logan 230 kV | 120.9 MW (21%) |
| Comanche Unit 3 | 804 MW |
| Cedar Creek Wind | 115.5 MW (21%) |
| Ft St Vrain Unit 5 & 6 | 295 MW |
| | |
| Rawhide Plant | 483 MW (PRPA) |
| Baculite Mesa Plant | 413.3 MW (BHE) |
| Lincoln Plant | 65 MW (TSGT) |

GI-2011-07 Case Adjustments

| | |
|---|---|
| GI-2011-02 | 200 MW |
| GI-2011-07 | 200 MW |
| Spruce Units 1 & 2 | 102.1 MWnet |
| Brighton Units 1 & 2 | 0 MW |
| Plains End Units | 117.6 MW |

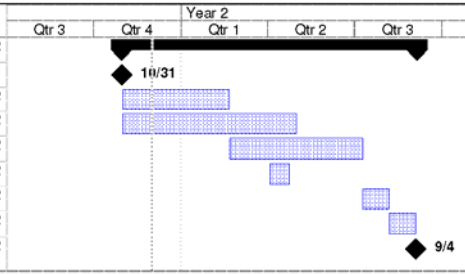
## Table 6. Results of Transient Stability Analysis

| Disturbance Scenario # | Fault Type | Total Clearing Time | Fault Location | Tripped Facilities | Benchmark Case 2013 | With generation at the GI-2011-7 site 2013 Case |
|---|---|---|---|---|---|---|
| 100 | 3ph | 5 cycles | Missile Site 345 kV | Missile Site – Pawnee 345 kV | Stable, no violation | Stable, no violation |
| 101 | | | | Missile Site – Smoky Hill 345 kV | Stable, no violation | Stable, no violation |
| 102 | | | | Missile Site 345/230 kV Trf #1 | Stable, no violation | Stable, no violation |
| 110 | 3ph | 6 cycles | Pawnee 230 kV | Pawnee – Story 230 kV | Stable, no violation | Stable, no violation |
| 111 | | | | Pawnee – Ft Lupton 230 kV | Stable, no violation | Stable, no violation |
| 112 | | | | Pawnee – Brick Center 230 kV | Stable, no violation | Stable, no violation |
| 200 | slg with Breaker Failure | 20 cycles | | Pawnee – Story 230 kV with Pawnee – Missile Site 230 kV tripping due to breaker failure | Stable, no violation | Stable, no violation |
| 201 | | | | Pawnee – Missile Site 230 kV with Pawnee – Story 230 k tripping due to breaker failure | Stable, no violation | Stable, no violation |
| 300 | slg with Protection System Failure | 21 cycles | | Pawnee – Story 230 kV | Stable, no violation | Stable, no violation |
| 301 | | | | Pawnee – Ft Lupton 230 kV | Stable, no violation | Stable, no violation |
| 302 | | | | Pawnee – Brick Center 230 kV | Stable, no violation | Stable, no violation |

D. Proposed Project Schedule

## GI-2011-7
## Feasibility/System Impact Study
## Estimated Project Milestone Schedule

| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 1 | **Missile Site 345kV Substation** | **222 days** | **Mon 10/31/11** | **Tue 9/4/12** |
| 2 | E&P Agrmt approved by FERC | 1 day | Mon 10/31/11 | Mon 10/31/11 |
| 3 | Substation Design & Engineering | 16 wks | Tue 11/1/11 | Mon 2/20/12 |
| 4 | Material Procurement | 26 wks | Tue 11/1/11 | Mon 4/30/12 |
| 5 | Substation Physical/Electrical Construction | 20 wks | Tue 2/21/12 | Mon 7/9/12 |
| 6 | New 345/230 Auto installed | 3 wks | Tue 4/3/12 | Mon 4/23/12 |
| 7 | Final Relay, SCADA/RTU, Communications Work | 4 wks | Tue 7/10/12 | Mon 8/6/12 |
| 8 | Final Commissioning & Energization | 4 wks | Tue 8/7/12 | Mon 9/3/12 |
| 9 | Substation Capable of Providing Backfeed to Customer from 345kV Bus | 1 day | Tue 9/4/12 | Tue 9/4/12 |

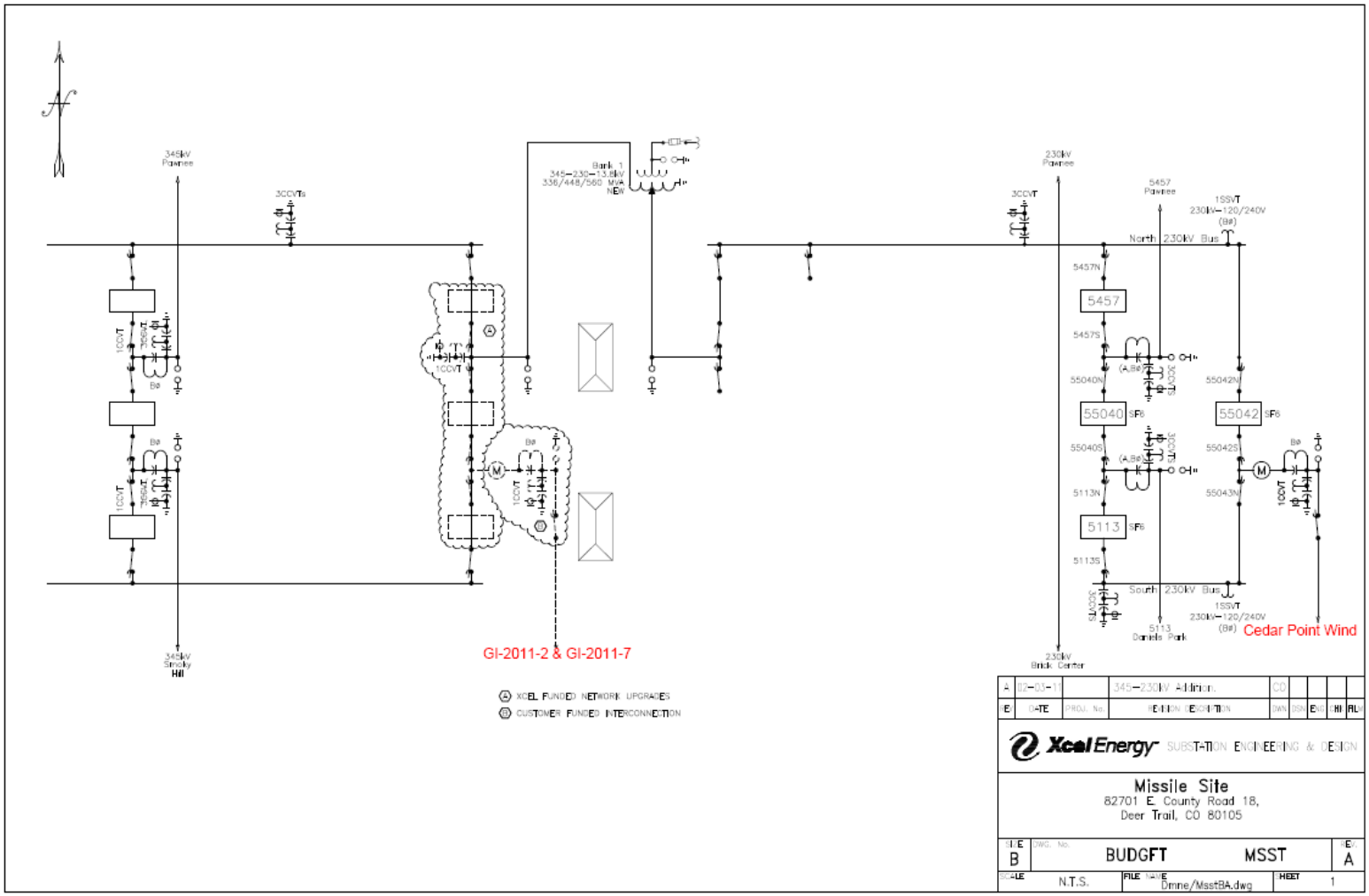



Project: GI-2011-7 Project Milestone S
Date: Thu 12/1/11

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

Page 1

E. Proposed Missile Site Substation One-Line



F. Transient Stability Study Plots

Transient Stability Study Plots on Following Pages

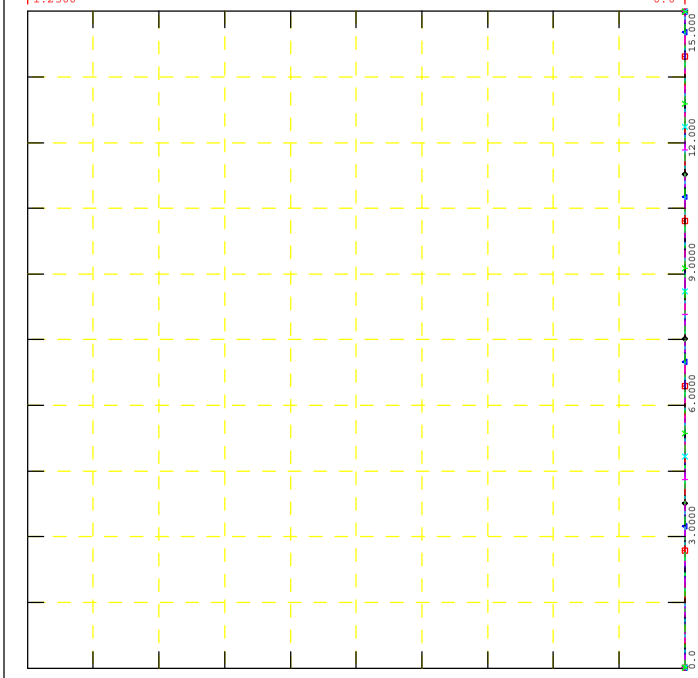
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
1.2500 0.0
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
1.2500 0.0
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
1.2500 0.0
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
1.2500 0.0
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
1.2500 0.0
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']
1.2500 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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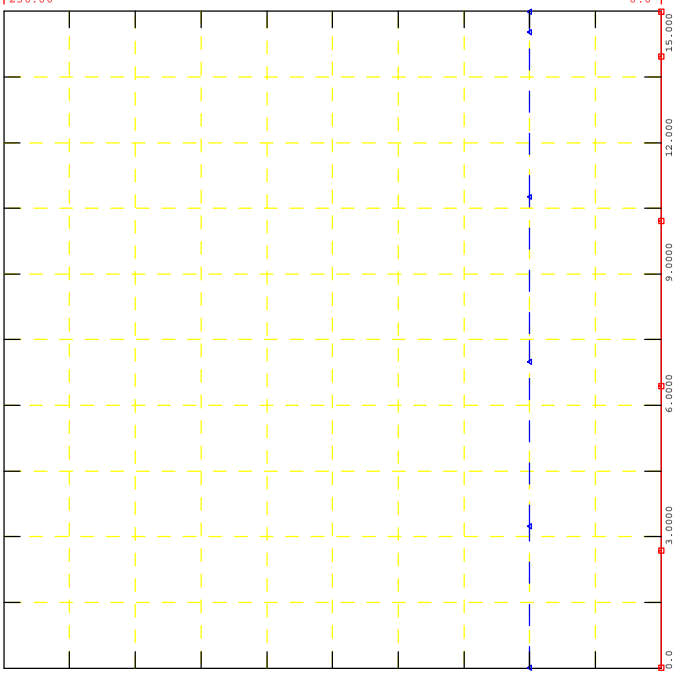
THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 -100.0
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
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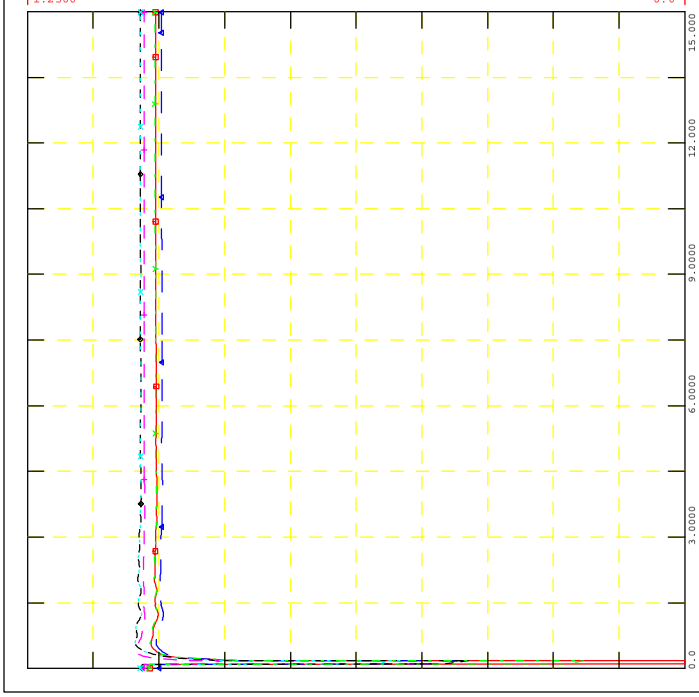
FILE: ..\#out\NC100_NwTr_OFF.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
1.2500 0.0
CHNL# 2144: [VOLT PAWNEE 230.00]
1.2500 0.0
CHNL# 2302: [VOLT COMANCHE 345.00]
1.2500 0.0
CHNL# 2286: [VOLT PAWNEE 345.00]
1.2500 0.0
CHNL# 2287: [VOLT SMOKYHIL 345.00]
1.2500 0.0
CHNL# 2298: [VOLT MIS SITE 345.00]
1.2500 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)



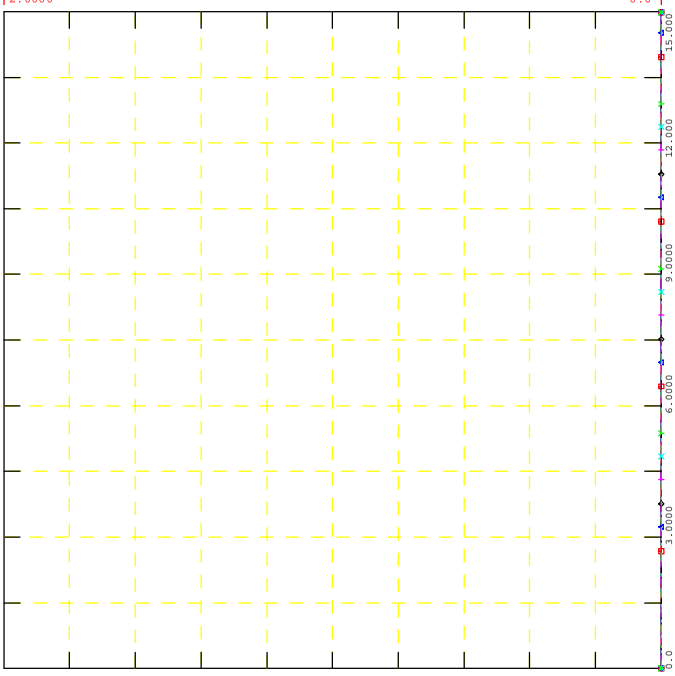
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
2.0000 0.0
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
2.0000 0.0
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
2.0000 0.0
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
2.0000 0.0
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
2.0000 0.0
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']
2.0000 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)



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2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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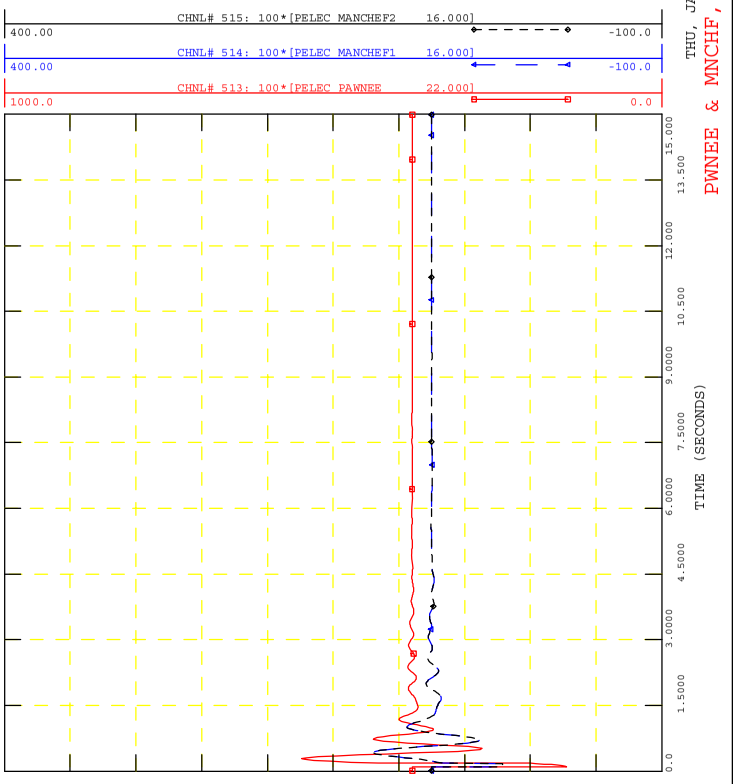
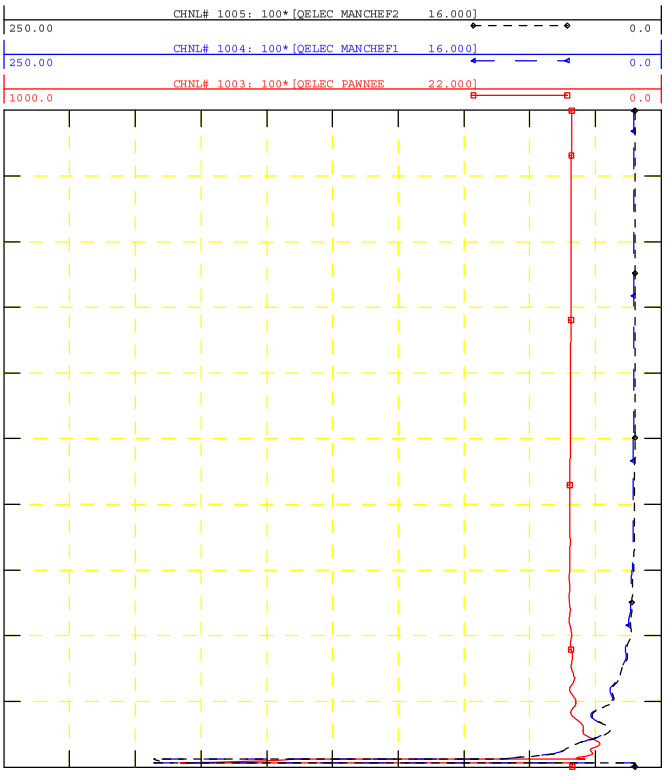



PWNEE & MNCHF, PELEC (MW)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_OFF.out

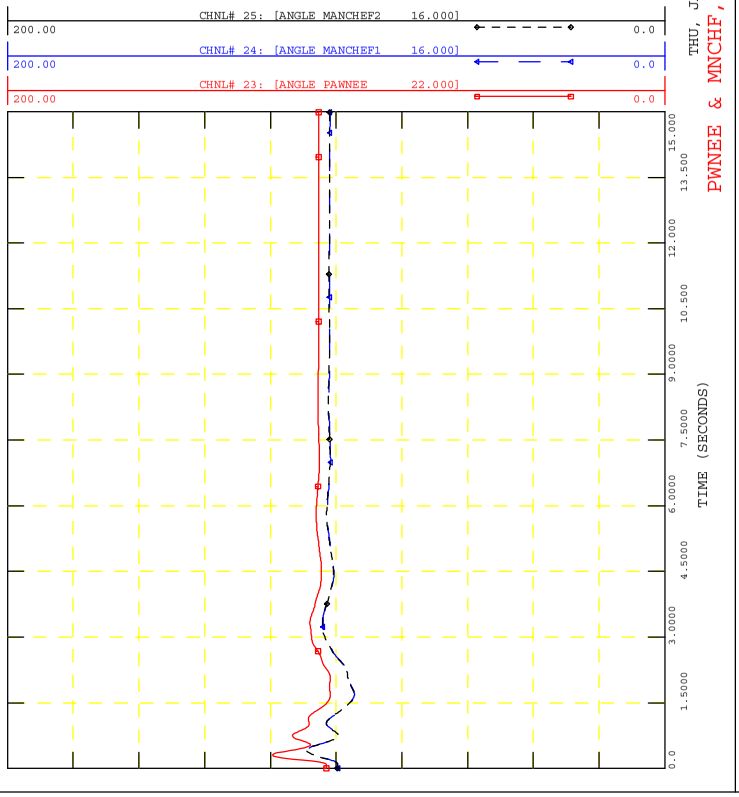
THU, JAN 19 2012 12:01




PWNEE & MNCHF, QELEC (MVAR)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_OFF.out

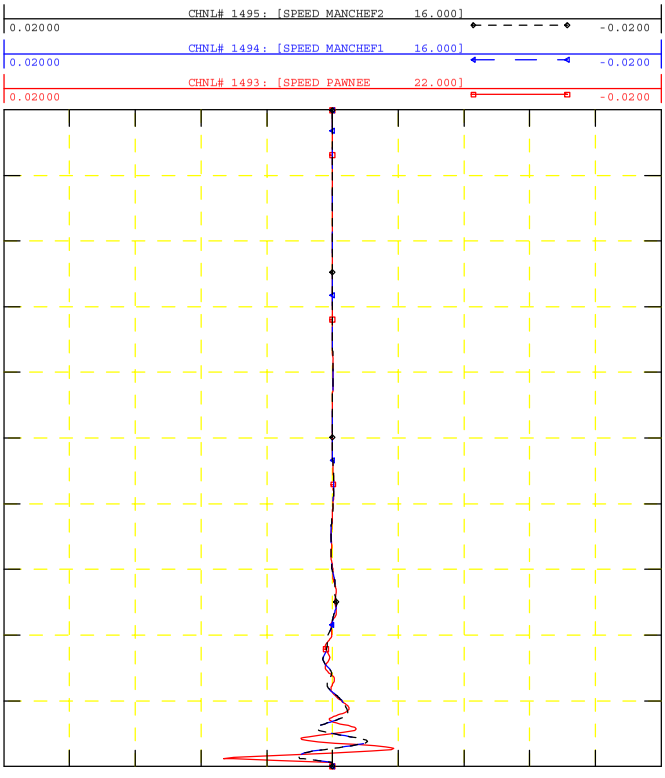
THU, JAN 19 2012 12:01




PWNEE & MNCHF, ANGLE (DEG)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_OFF.out

THU, JAN 19 2012 12:01




PWNEE & MNCHF, SPDDEV (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
1.2500 0.0
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
1.2500 0.0
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
1.2500 0.0
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
1.2500 0.0
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
1.2500 0.0
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']
1.2500 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 -100.0
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
1.2500 0.0
CHNL# 2144: [VOLT PAWNEE 230.00]
1.2500 0.0
CHNL# 2302: [VOLT COMANCHE 345.00]
1.2500 0.0
CHNL# 2286: [VOLT PAWNEE 345.00]
1.2500 0.0
CHNL# 2287: [VOLT SMOKYHIL 345.00]
1.2500 0.0
CHNL# 2298: [VOLT MIS SITE 345.00]
1.2500 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
2.0000 0.0
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
2.0000 0.0
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
2.0000 0.0
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
2.0000 0.0
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
2.0000 0.0
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']
2.0000 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
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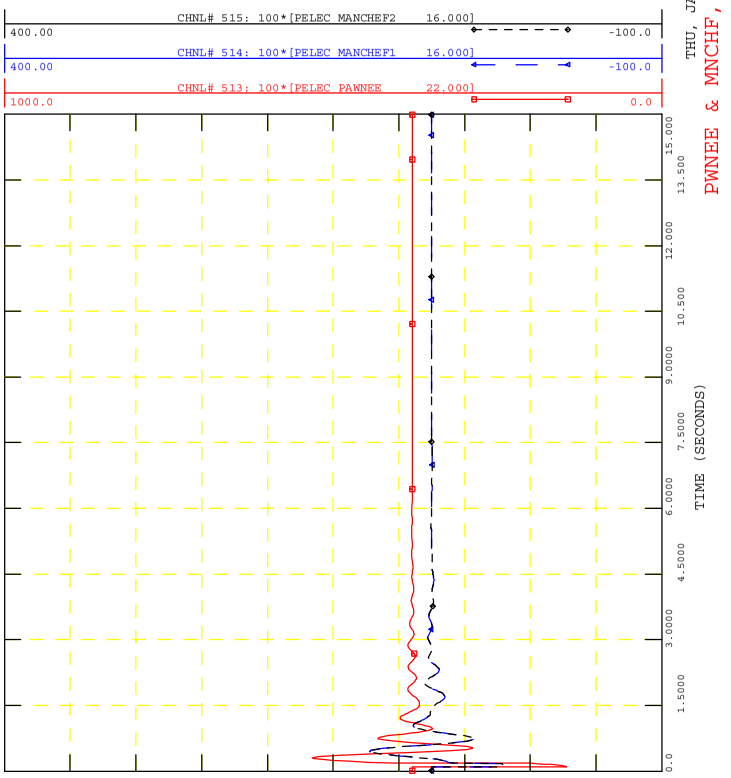


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
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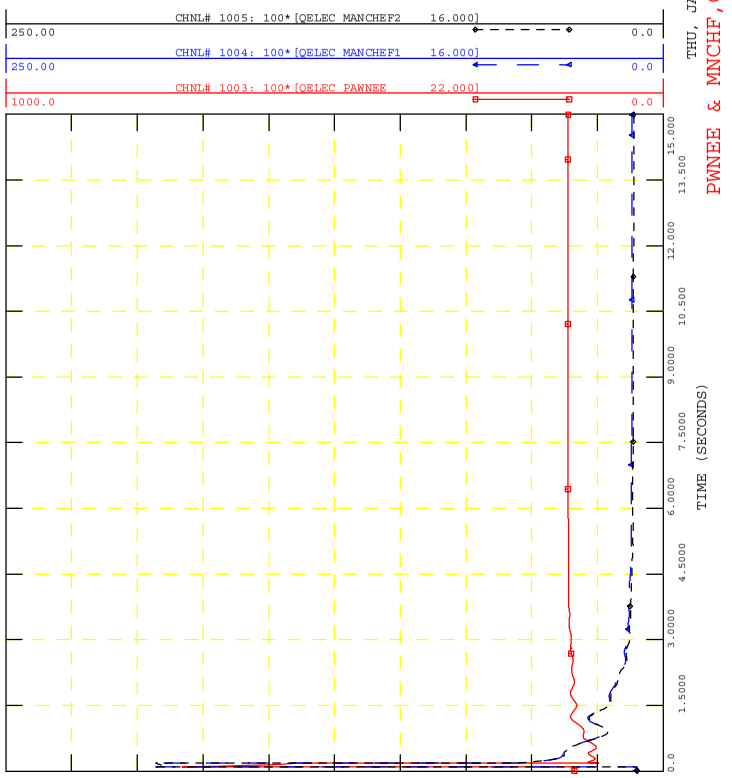


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
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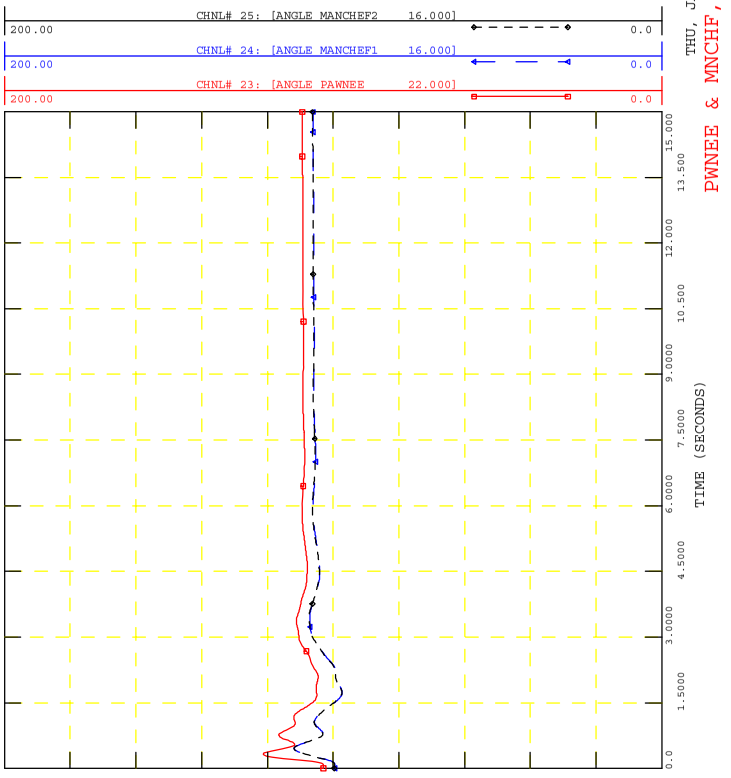


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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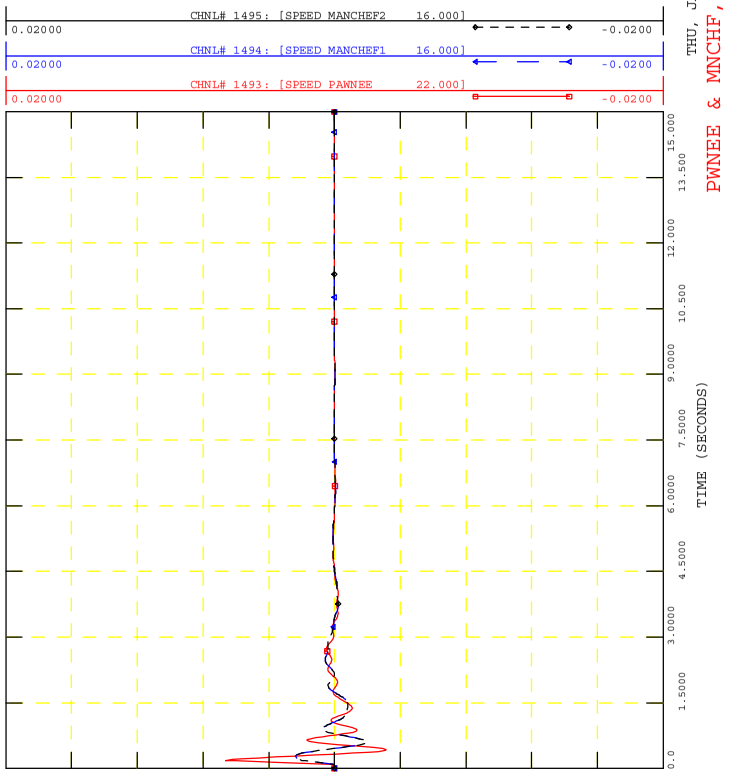

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
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FILE: ..\#out\NC102_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_OFF.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
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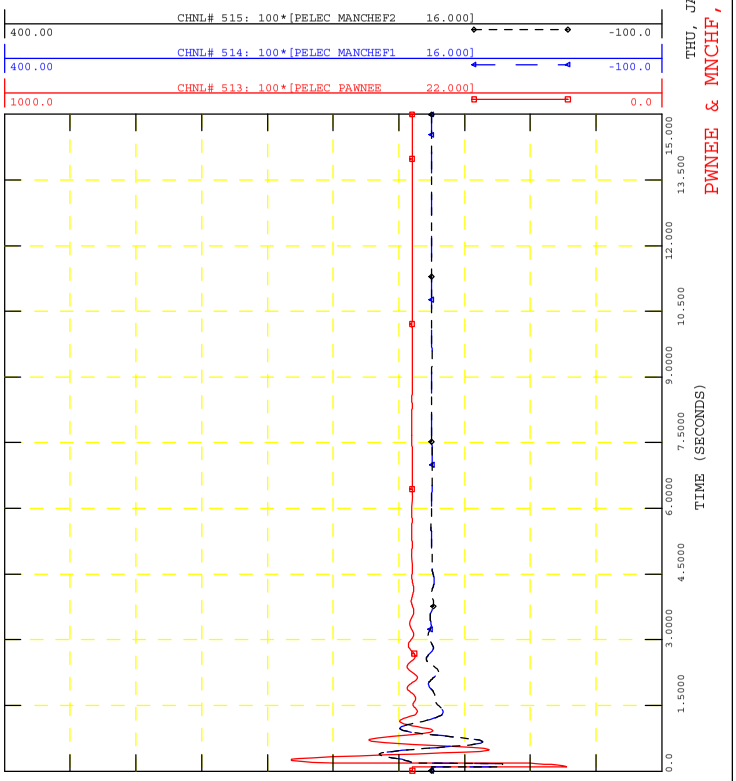
THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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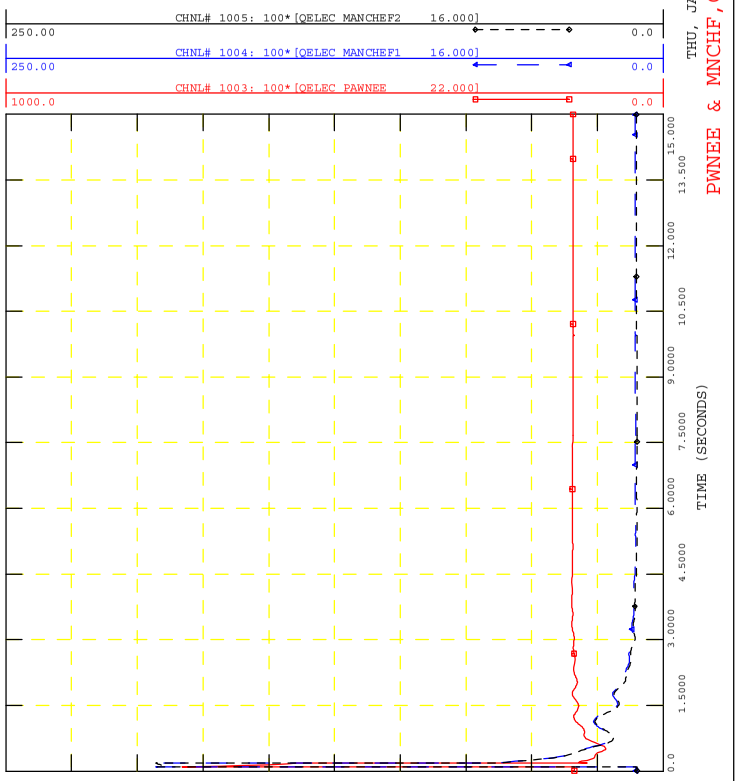
THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
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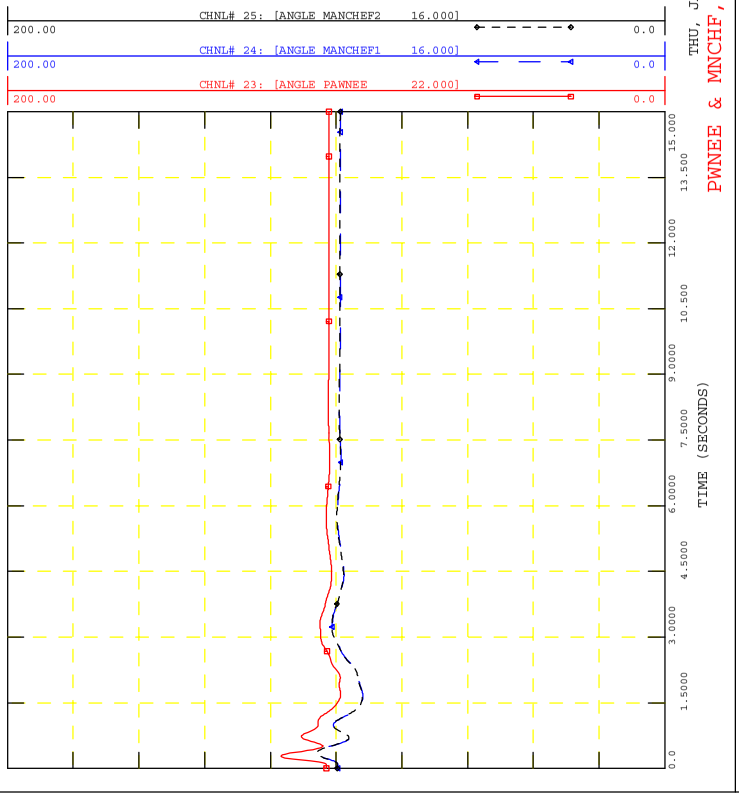


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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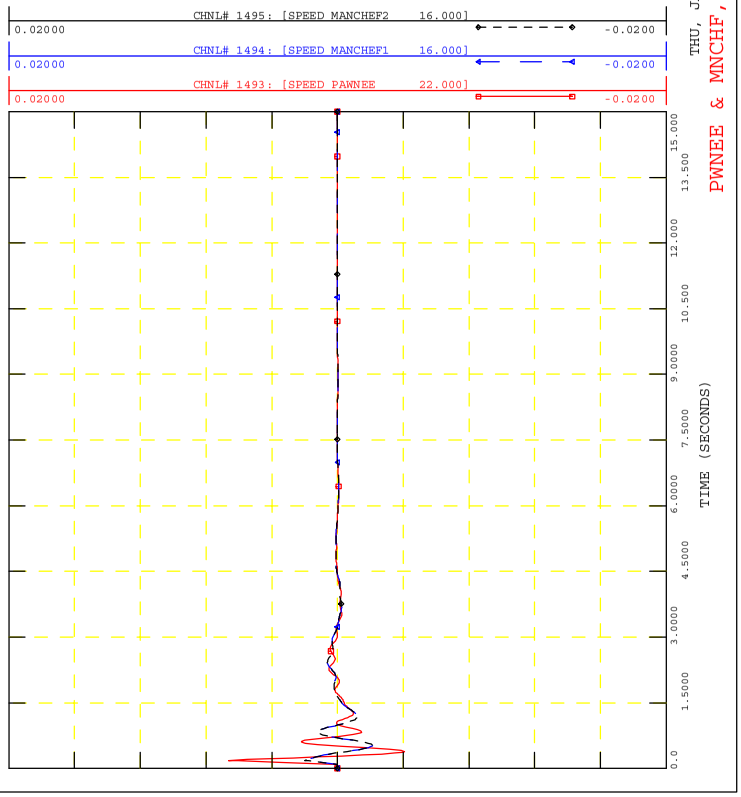
THU, JAN 19 2012 12:01



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
1.2500 0.0
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
1.2500 0.0
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
1.2500 0.0
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
1.2500 0.0
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
1.2500 0.0
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']
1.2500 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 -100.0
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
1.2500 0.0
CHNL# 2144: [VOLT PAWNEE 230.00]
1.2500 0.0
CHNL# 2302: [VOLT COMANCHE 345.00]
1.2500 0.0
CHNL# 2286: [VOLT PAWNEE 345.00]
1.2500 0.0
CHNL# 2287: [VOLT SMOKYHIL 345.00]
1.2500 0.0
CHNL# 2298: [VOLT MIS SITE 345.00]
1.2500 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01

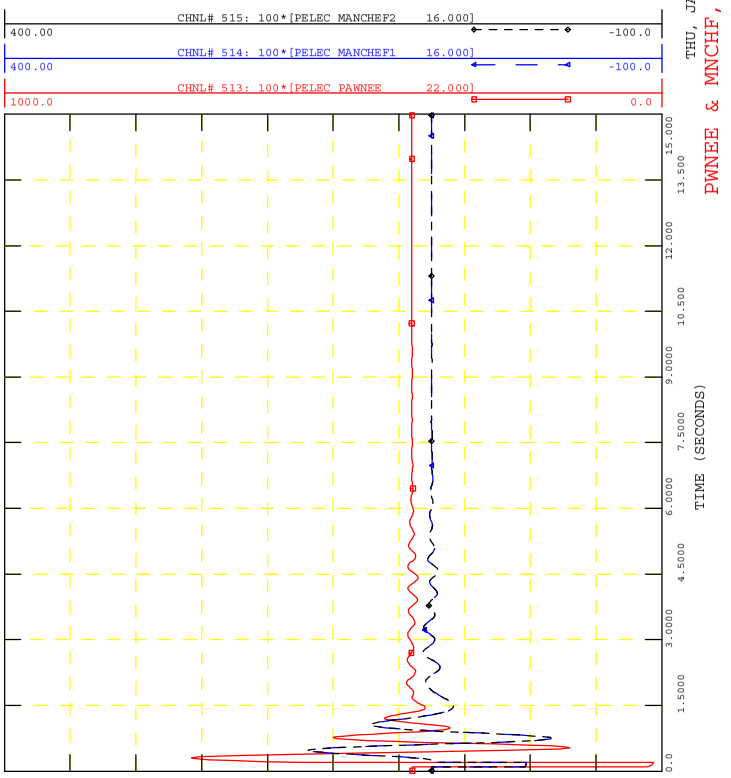
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
2.0000 0.0
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
2.0000 0.0
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
2.0000 0.0
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
2.0000 0.0
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
2.0000 0.0
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']
2.0000 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000
TIME (SECONDS)

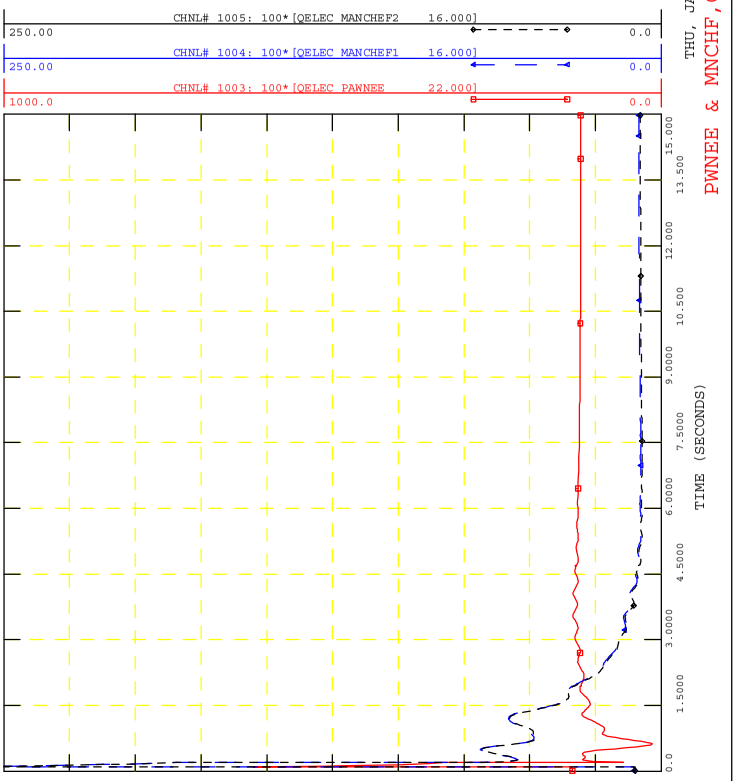
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01



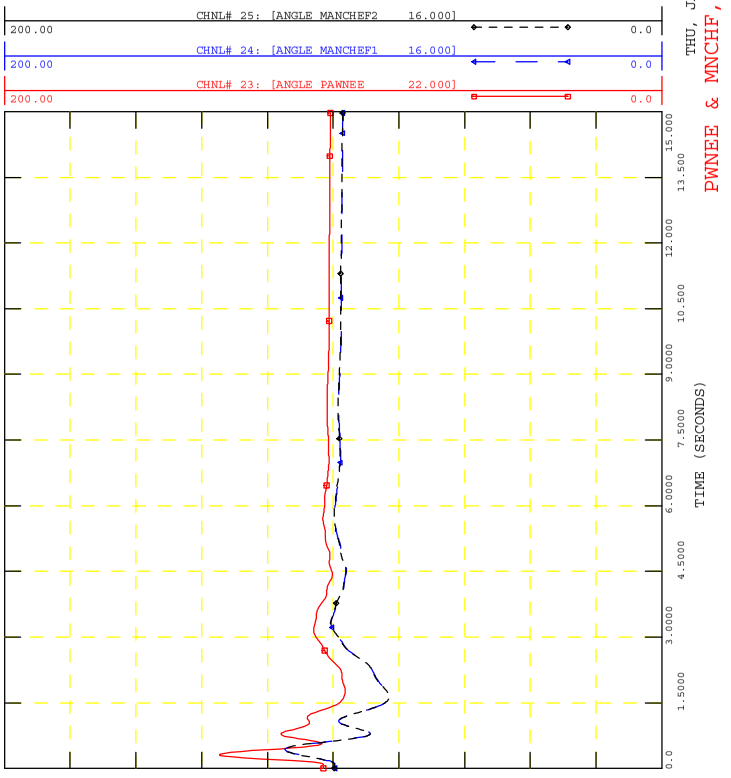

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01



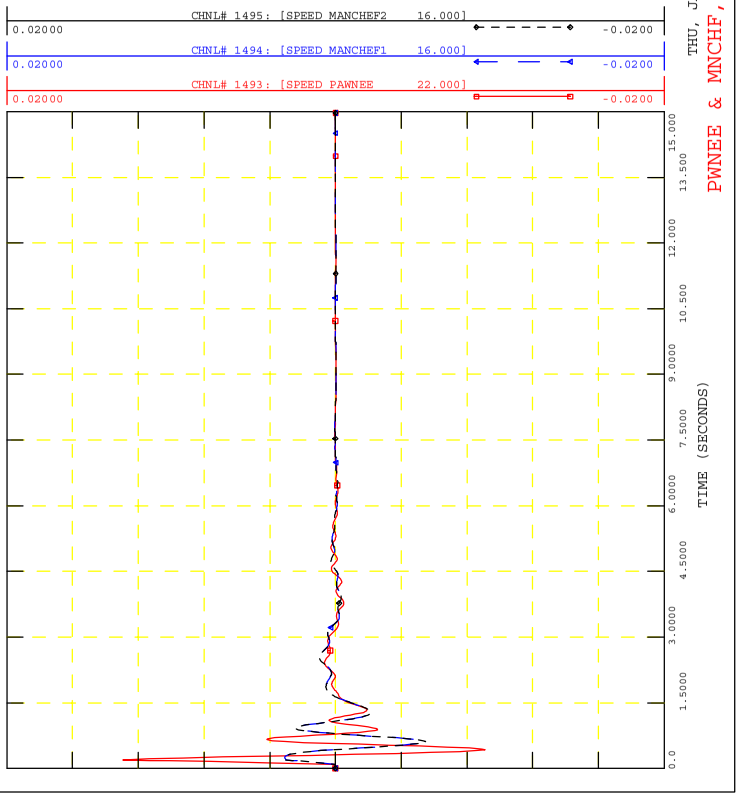

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_OFF.out

THU, JAN 19 2012 12:01



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

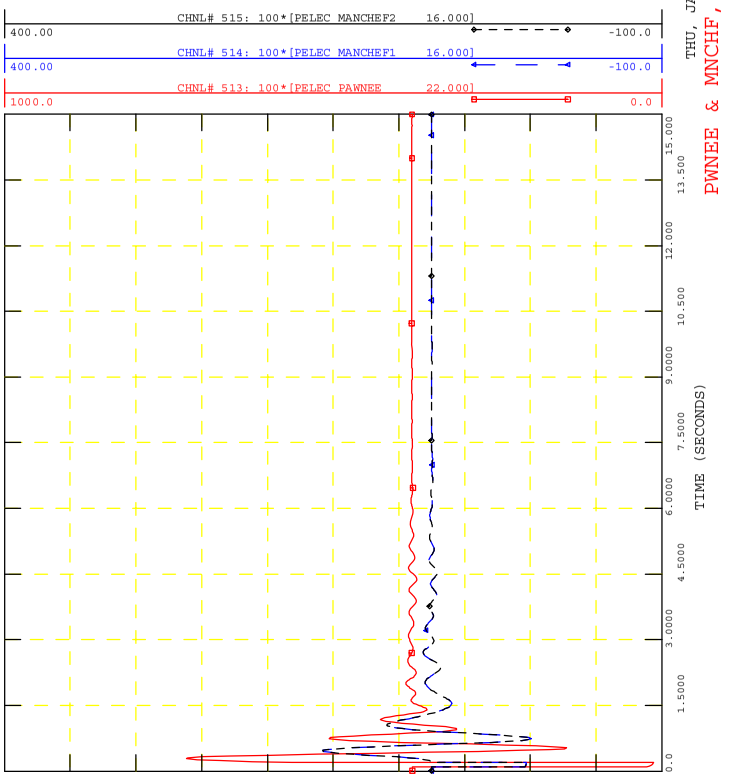
2.0000 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

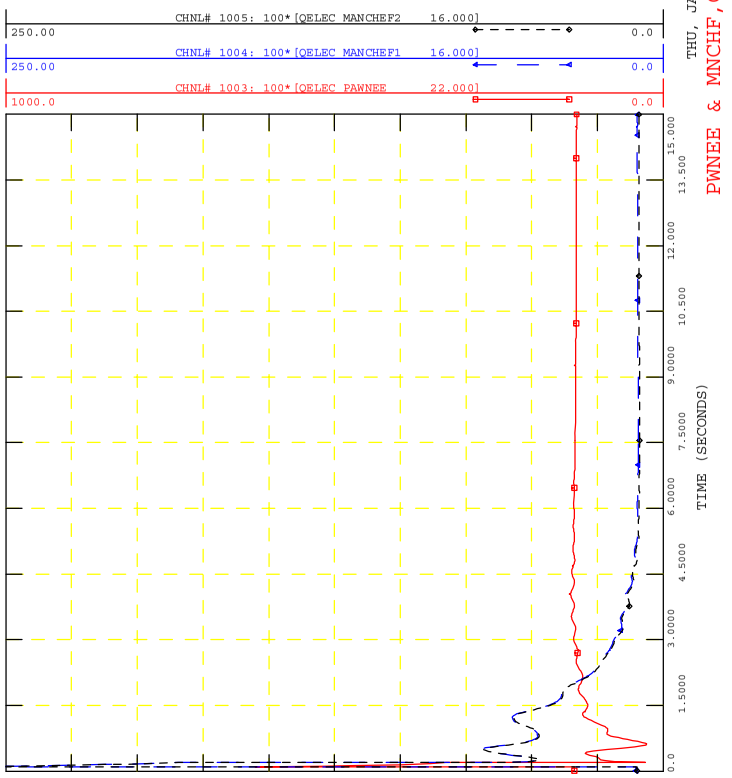
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01



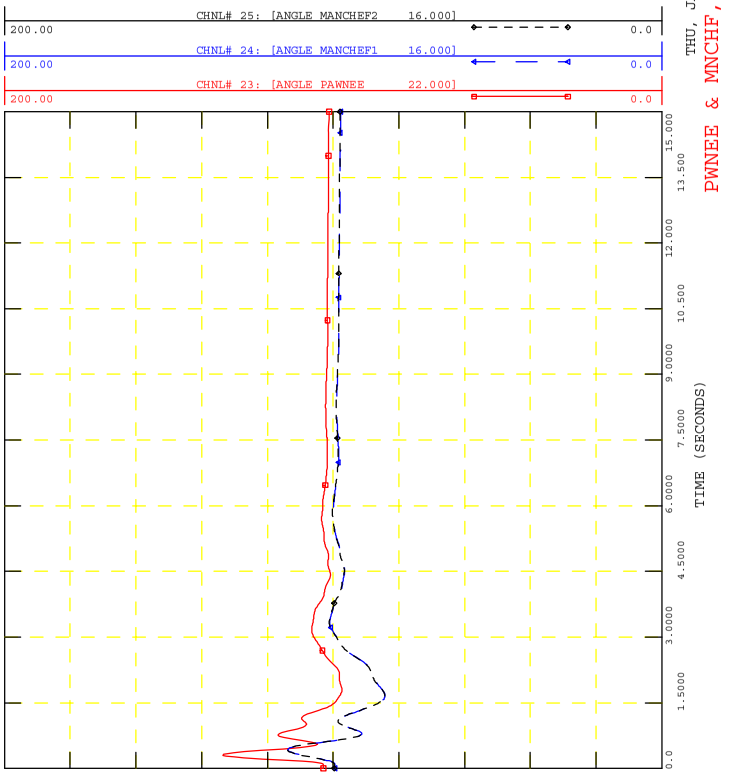

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01



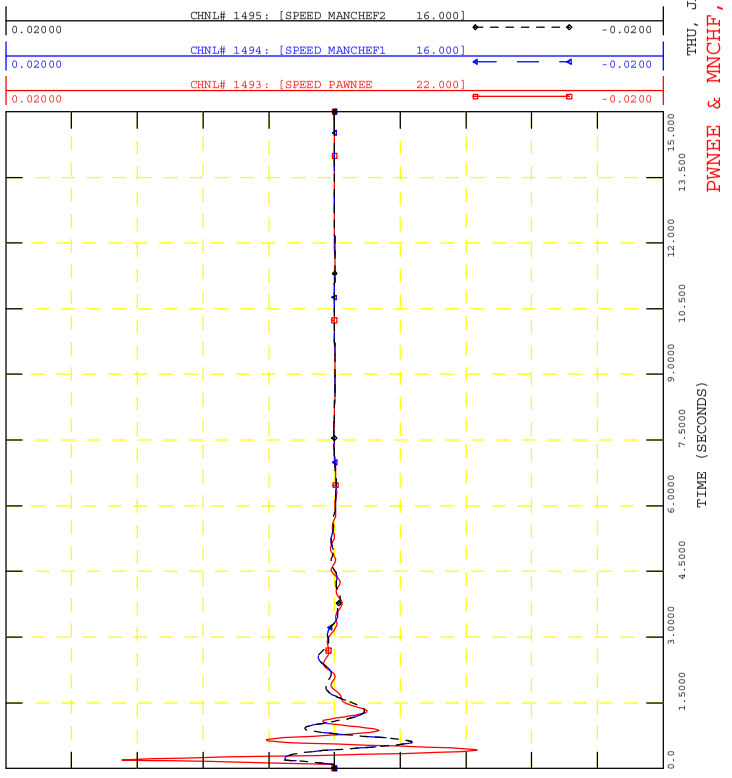

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_OFF.out

THU, JAN 19 2012 12:01



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

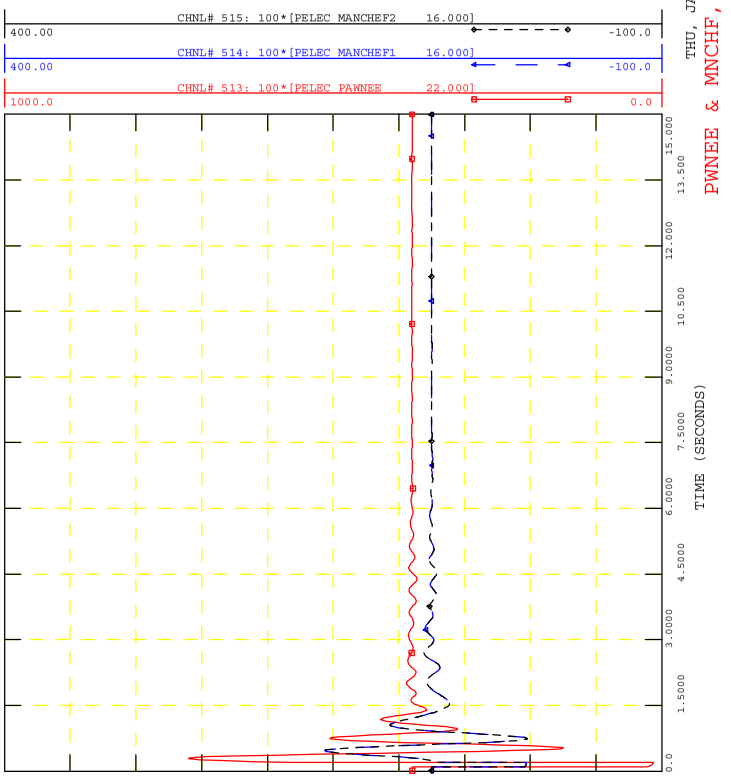
2.0000 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

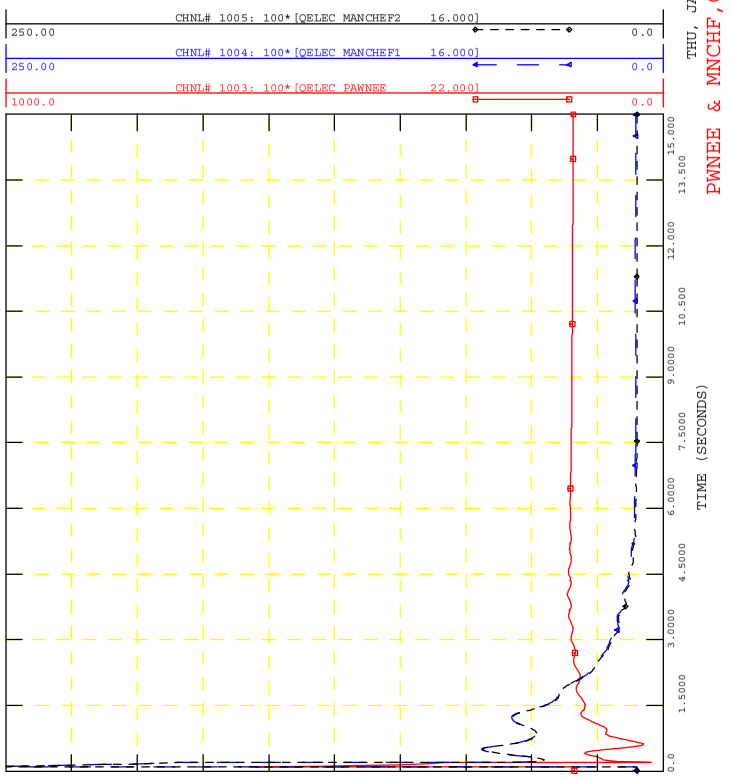
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01



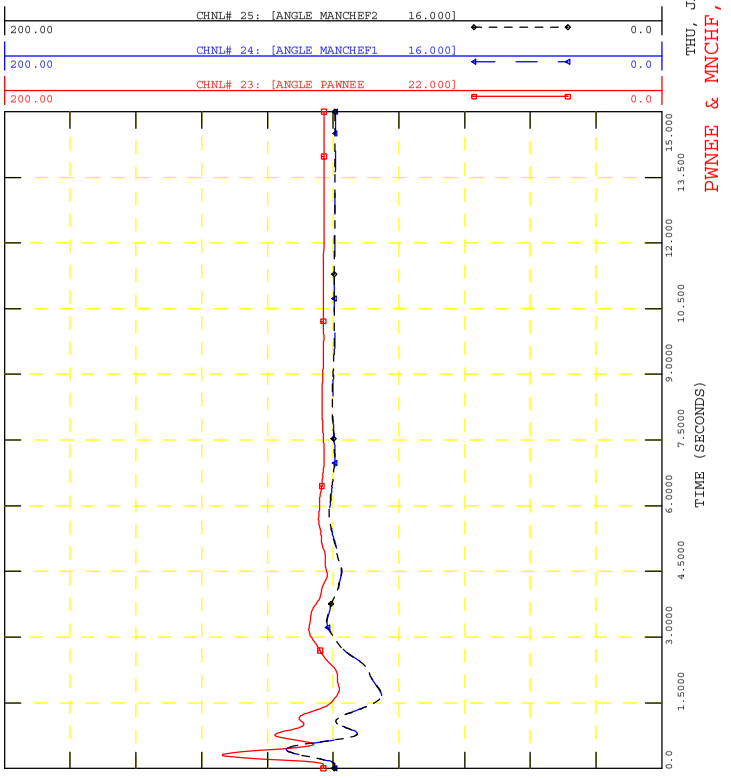

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01



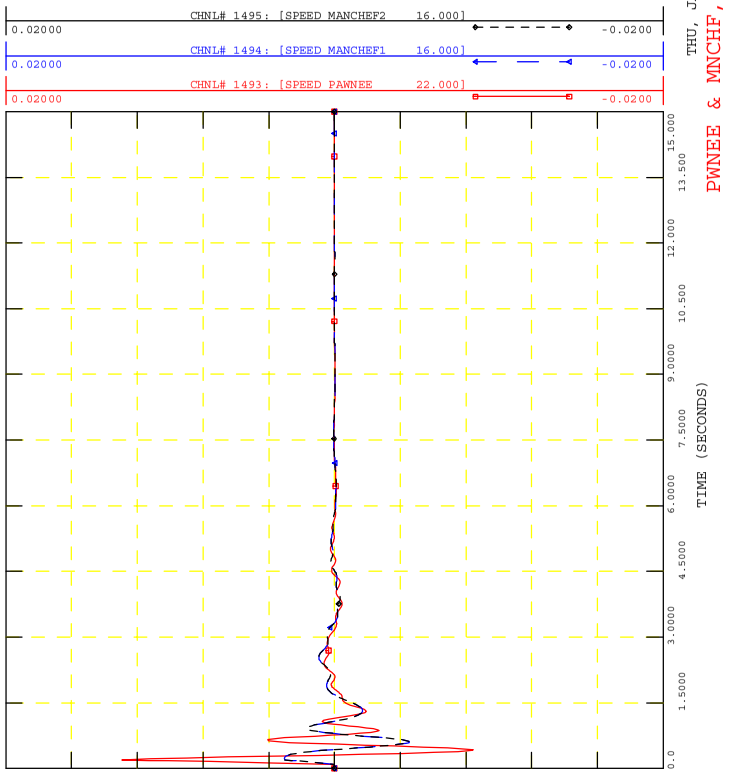

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_OFF.out

THU, JAN 19 2012 12:01



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_OFF.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

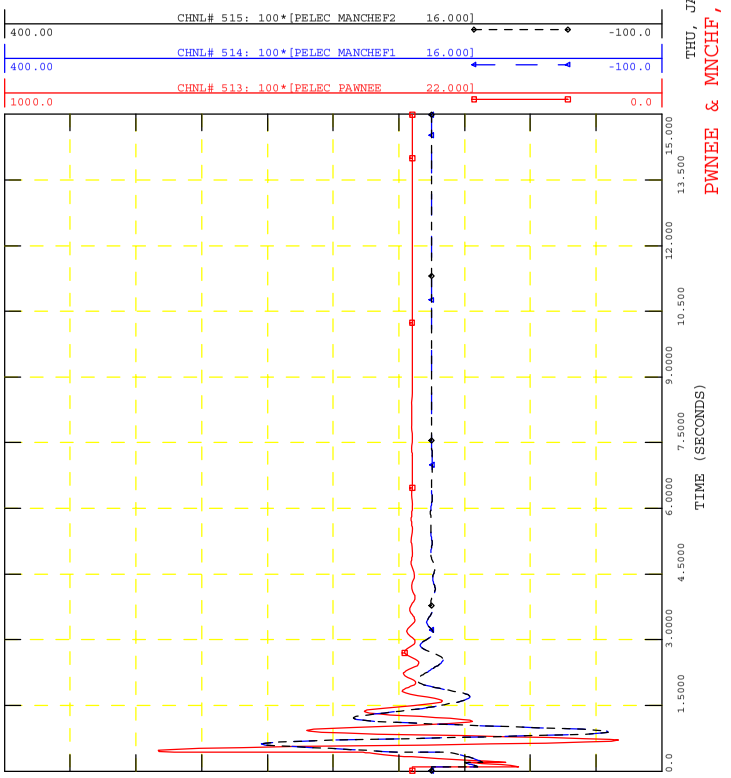
2.0000 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_OFF.out

THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
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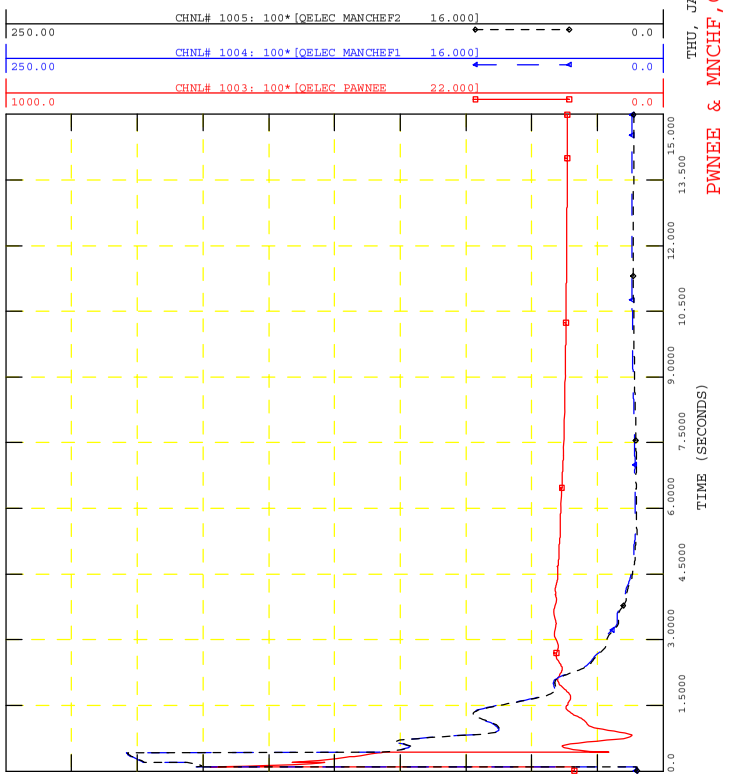
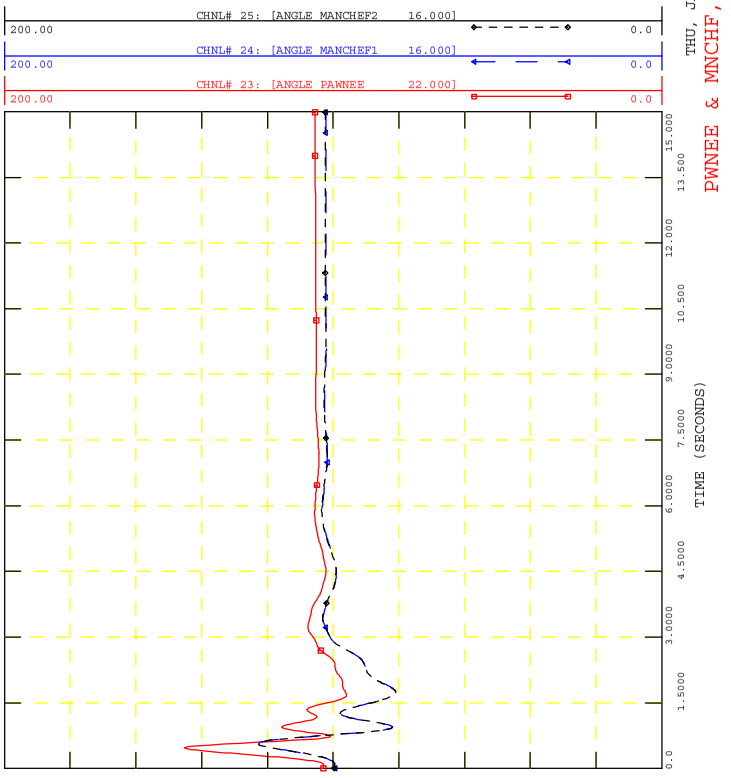
THU, JAN 19 2012 12:01



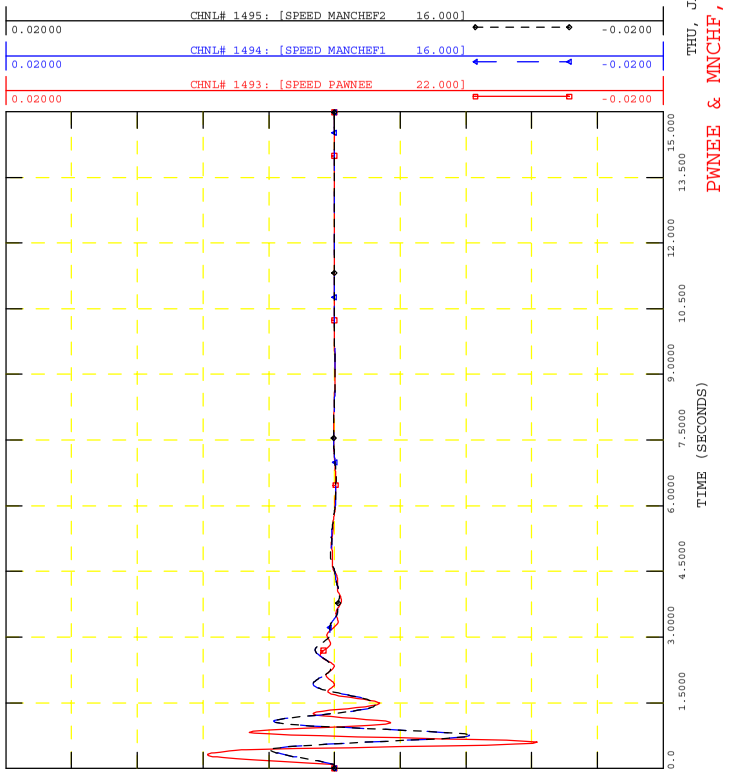

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_OFF.out

THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_OFF.out

THU, JAN 19 2012 12:01



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01

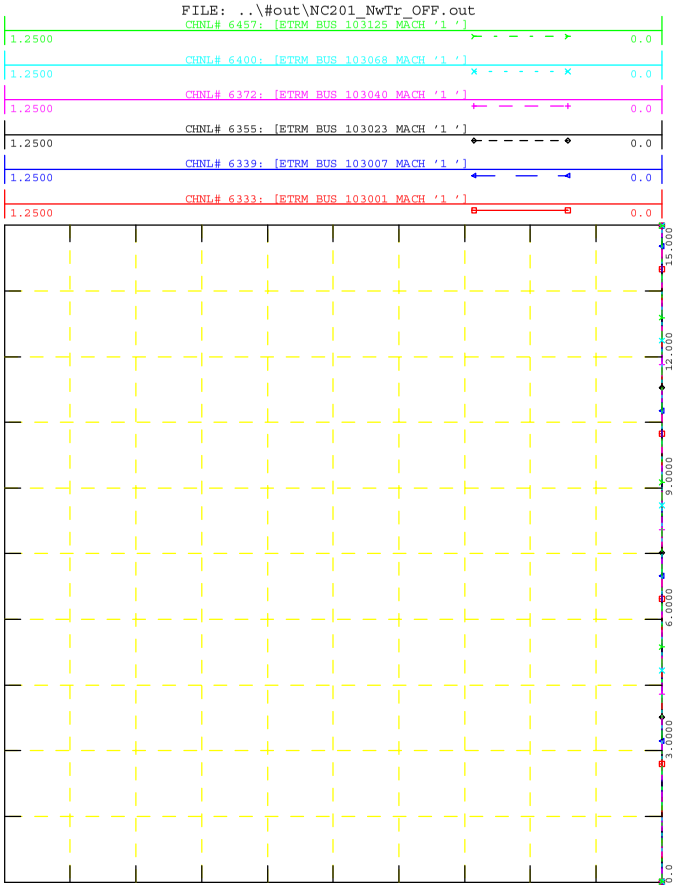
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01

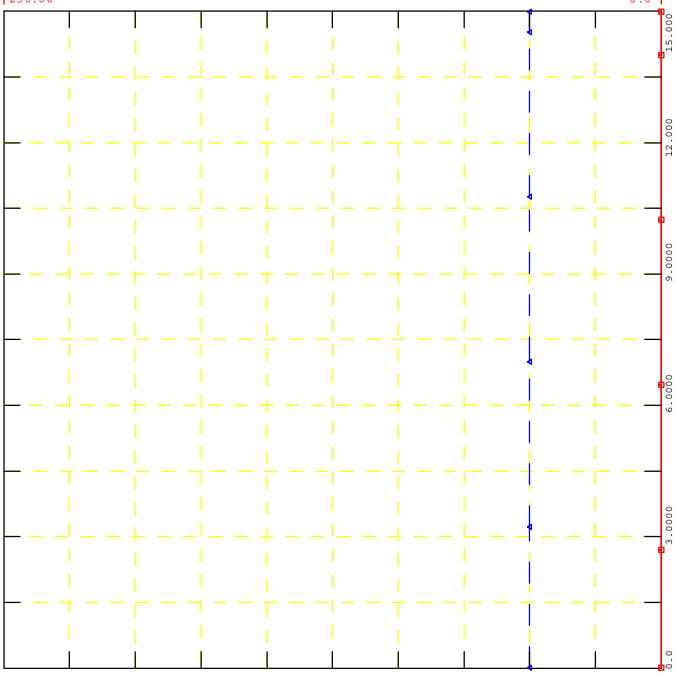
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01

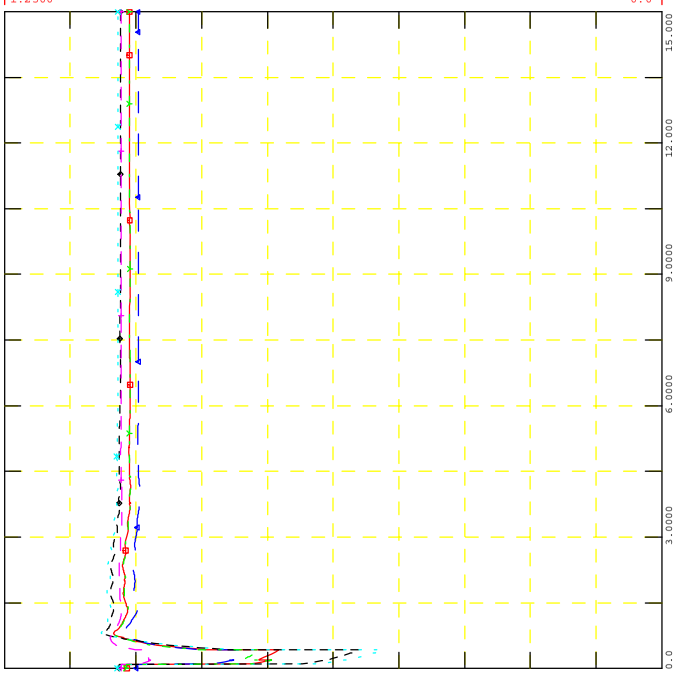
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01

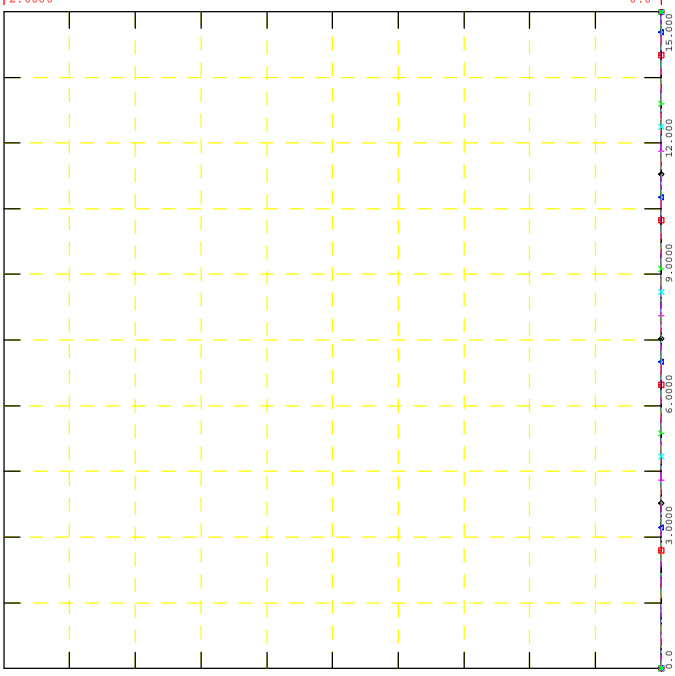
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

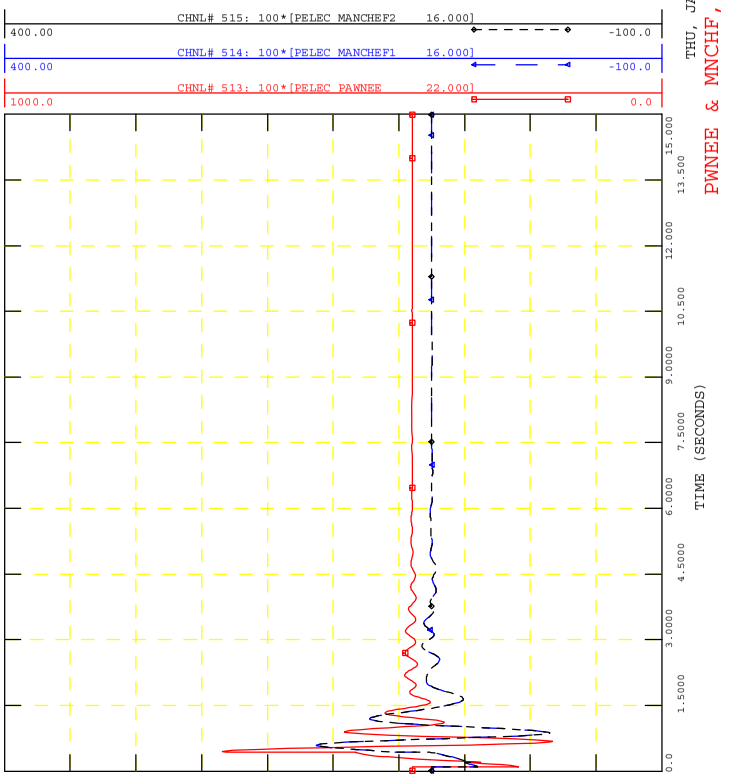
TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



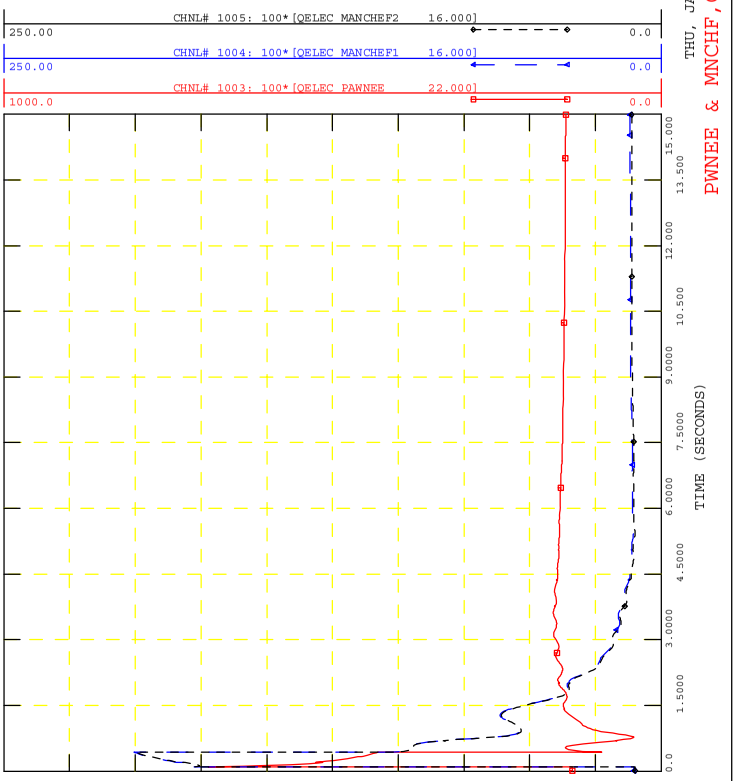
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01



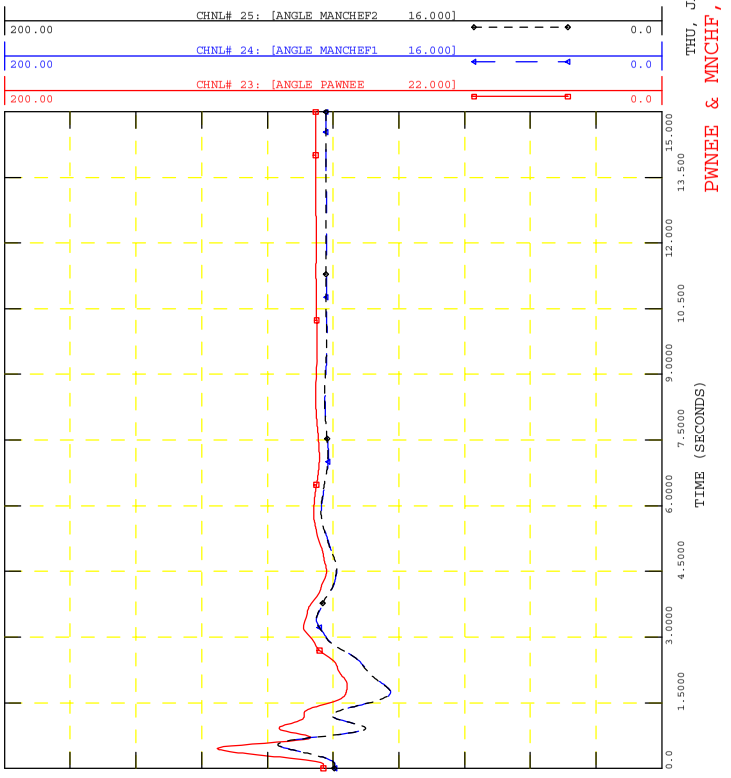

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01



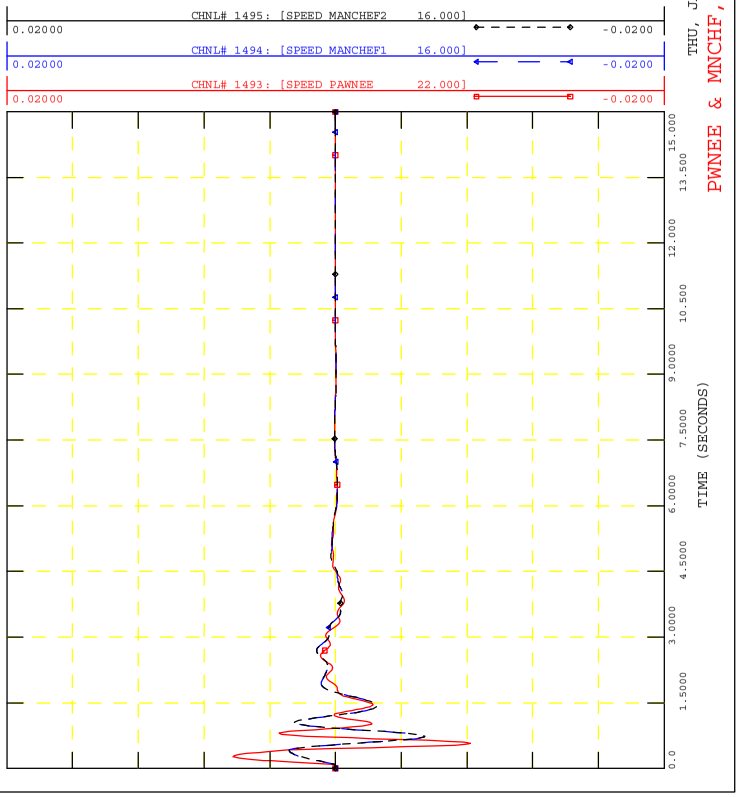

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_OFF.out

THU, JAN 19 2012 12:01



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

THU, JAN 19 2012 12:01

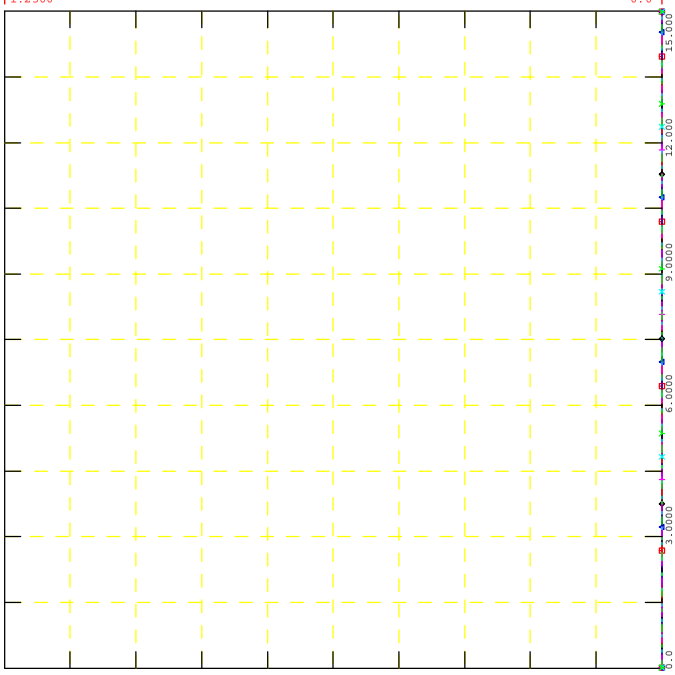
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

THU, JAN 19 2012 12:01

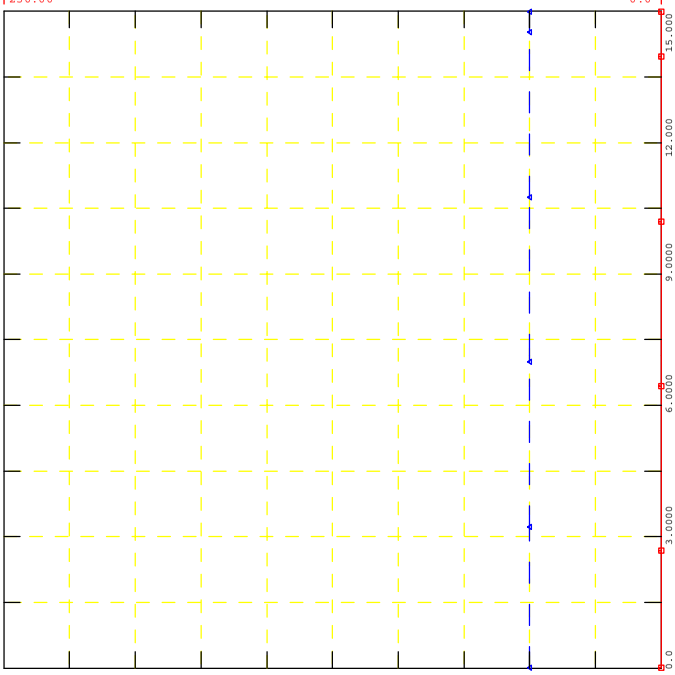
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

THU, JAN 19 2012 12:01

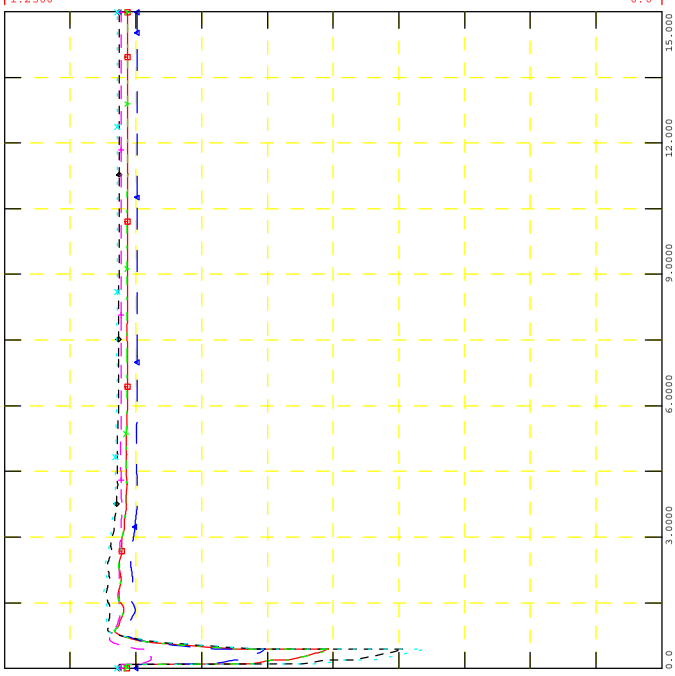
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

THU, JAN 19 2012 12:01

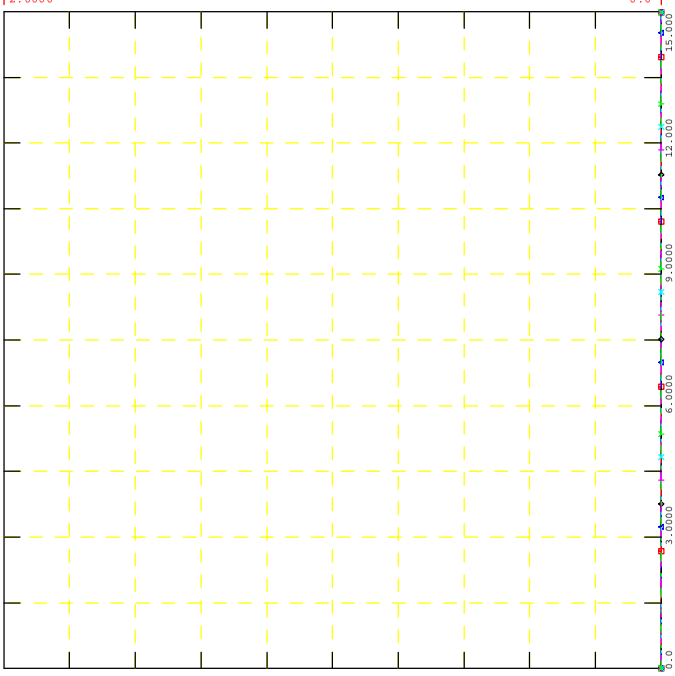
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

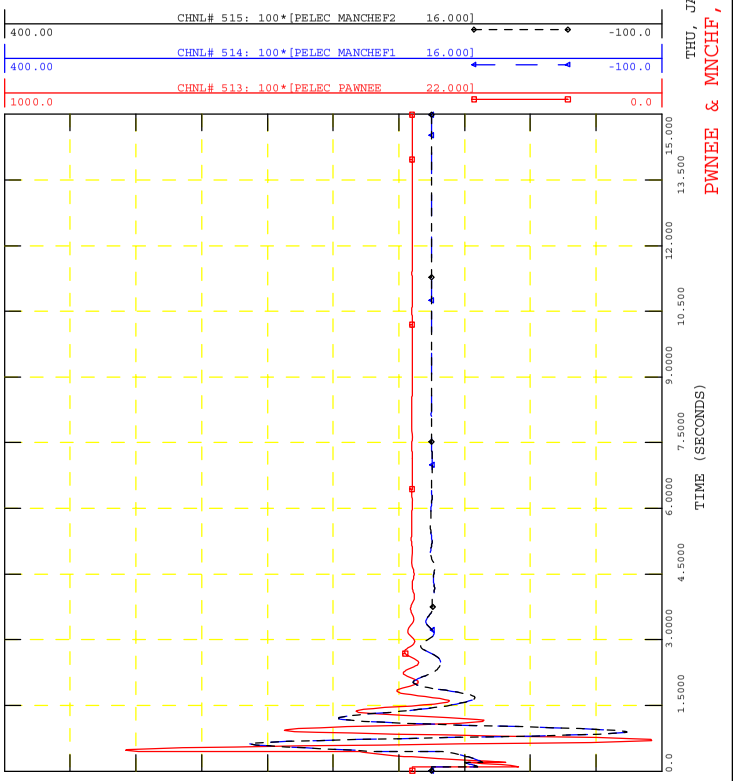
TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

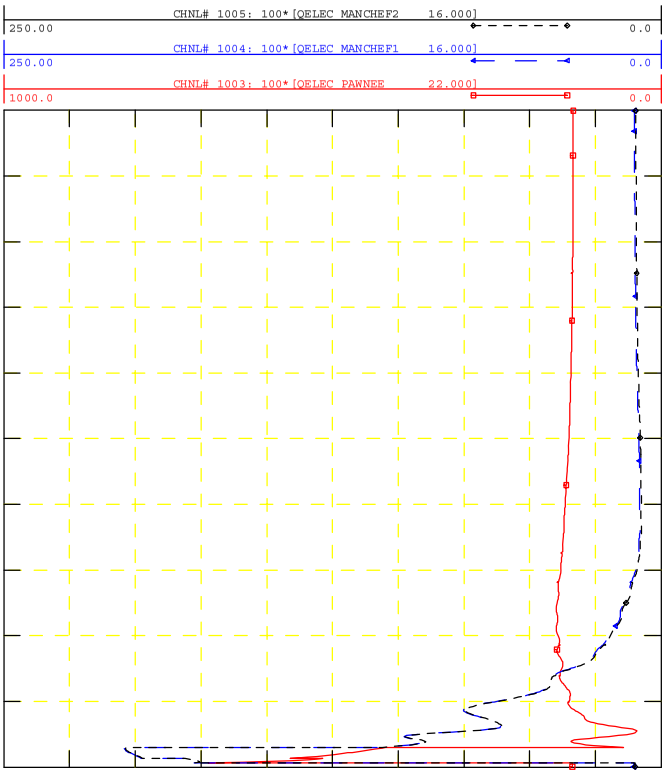
THU, JAN 19 2012 12:01




PWNEE & MNCHF, PELEC (MW)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

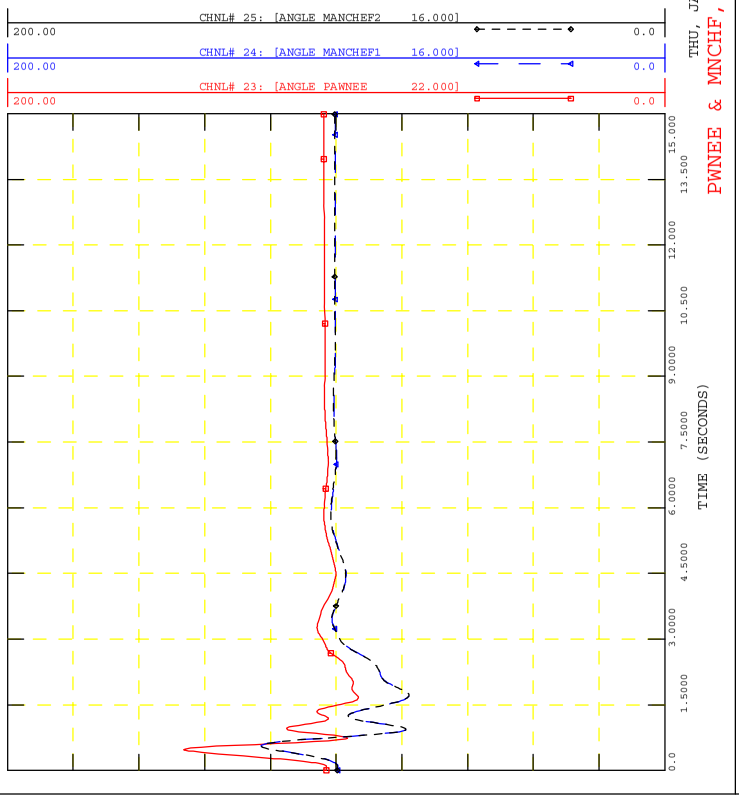
THU, JAN 19 2012 12:01




PWNEE & MNCHF, QELEC (MVAR)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

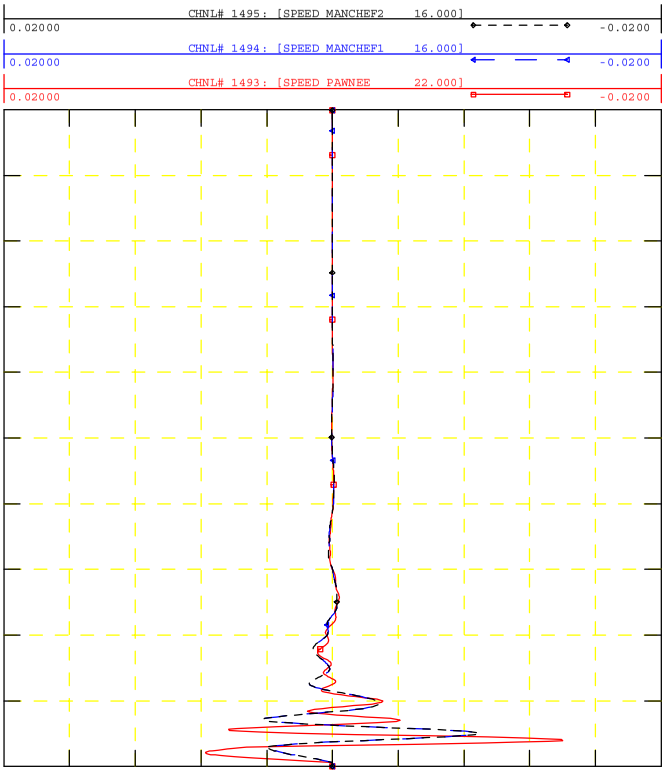
THU, JAN 19 2012 12:01




PWNEE & MNCHF, ANGLE (DEG)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_OFF.out

THU, JAN 19 2012 12:01




PWNEE & MNCHF, SPDDEV (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

THU, JAN 19 2012 12:01

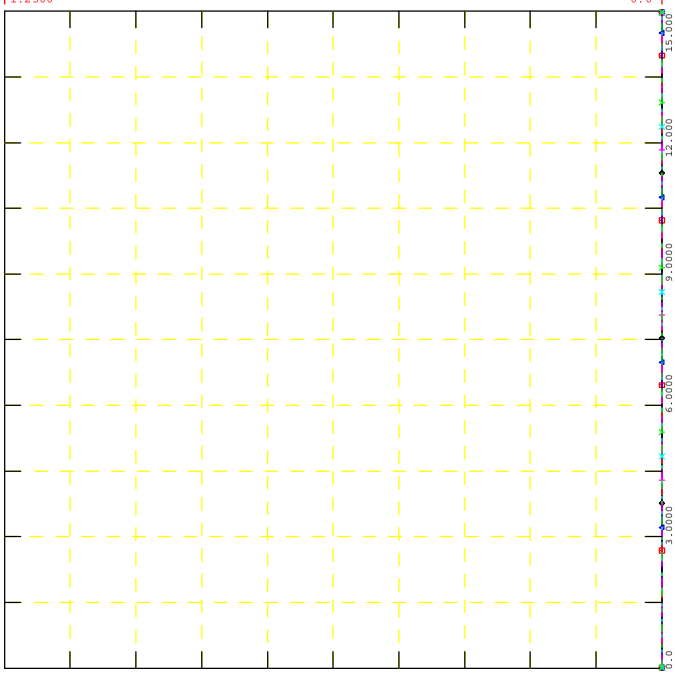
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

THU, JAN 19 2012 12:01

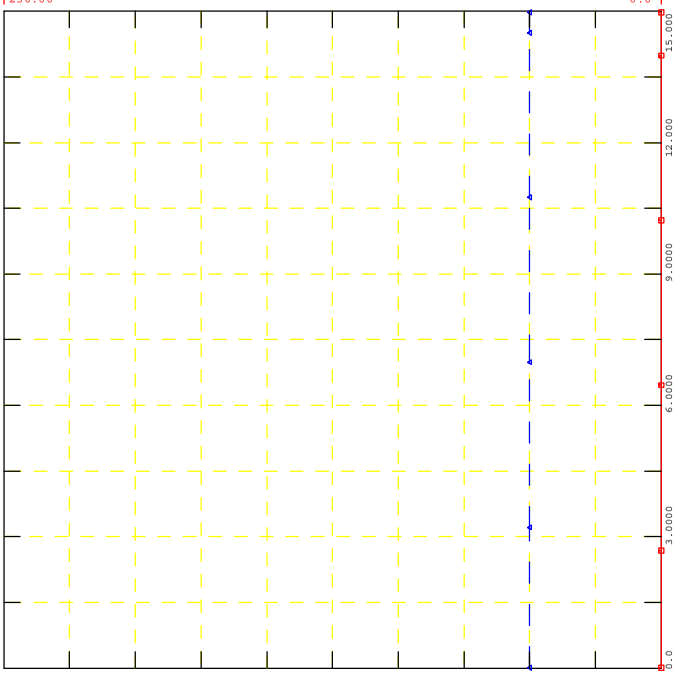
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 / -100.0

CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

THU, JAN 19 2012 12:01

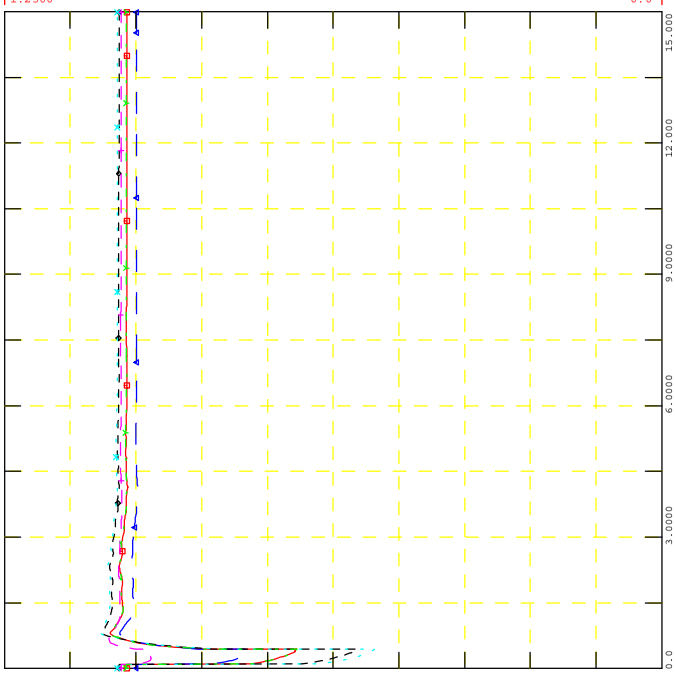
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

THU, JAN 19 2012 12:01

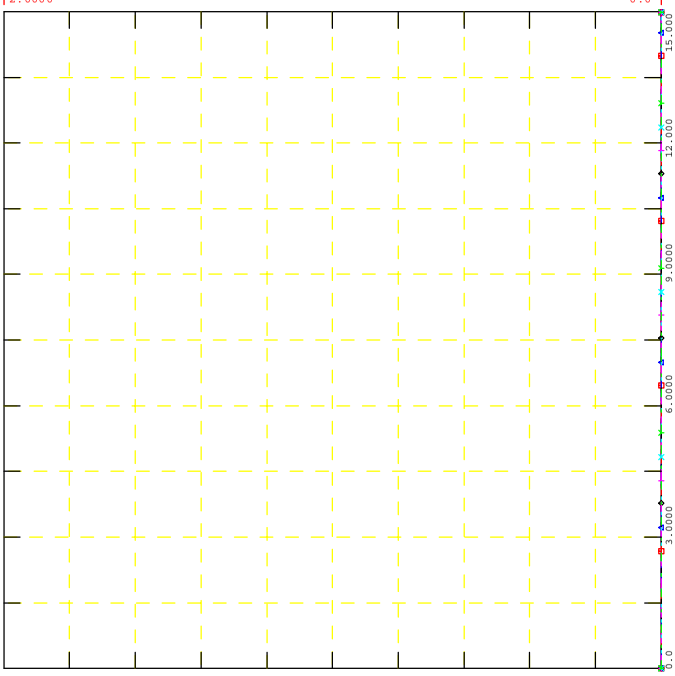
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

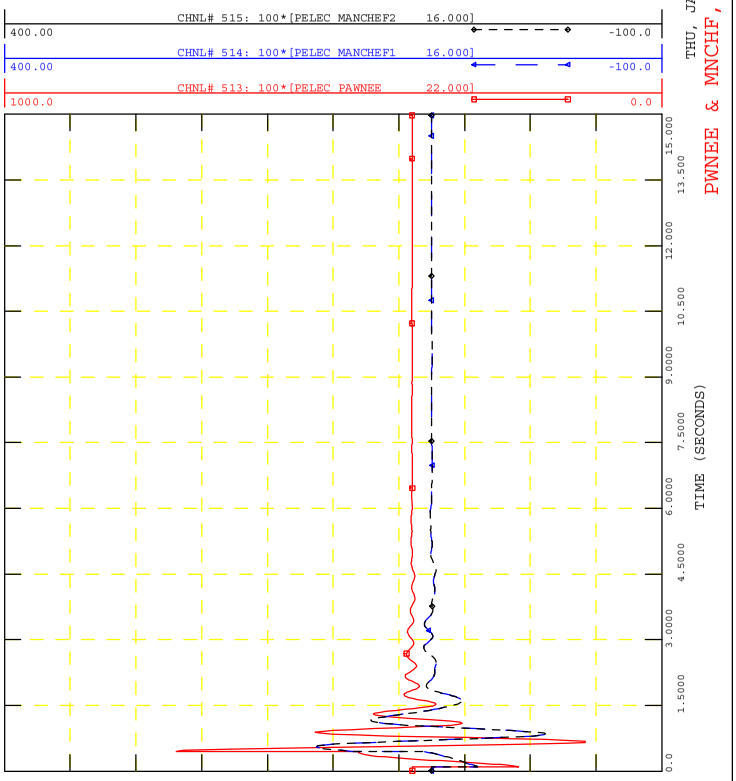
TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

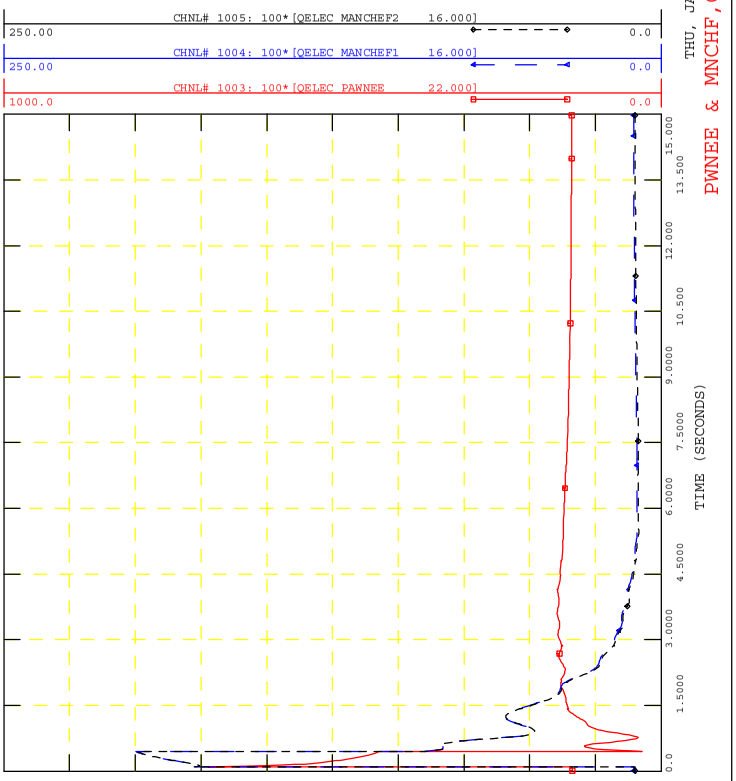
THU, JAN 19 2012 12:01




PWNEE & MNCHF, PELEC (MW)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

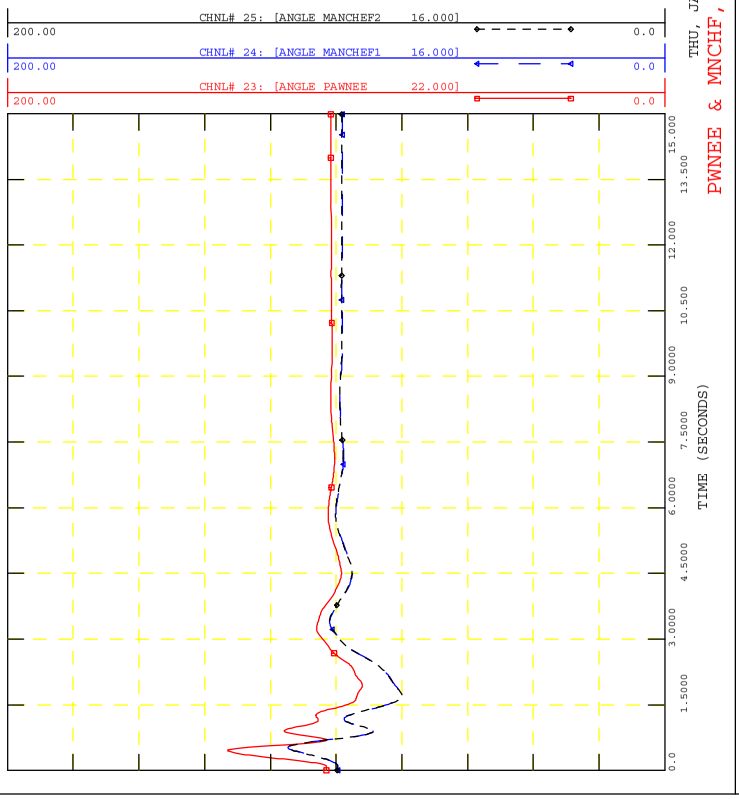
THU, JAN 19 2012 12:01




PWNEE & MNCHF, QELEC (MVAR)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

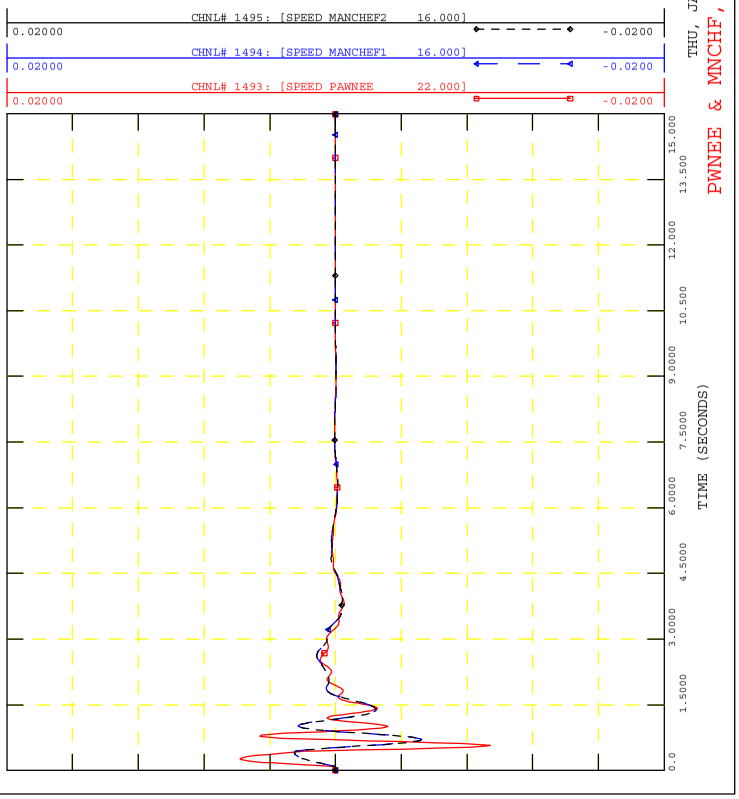
THU, JAN 19 2012 12:01




PWNEE & MNCHF, ANGLE (DEG)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_OFF.out

THU, JAN 19 2012 12:01




PWNEE & MNCHF, SPDDEV (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

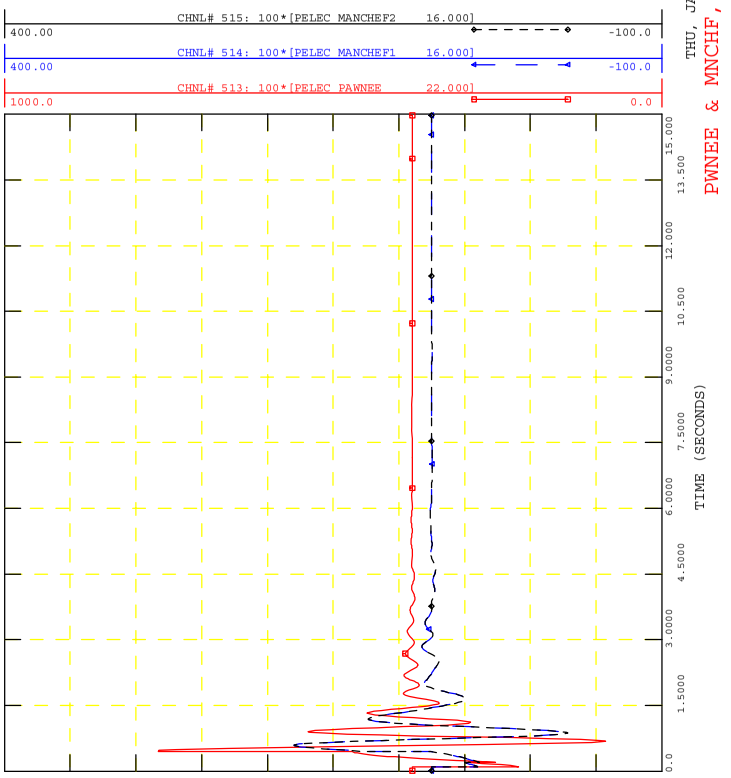
2.0000 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

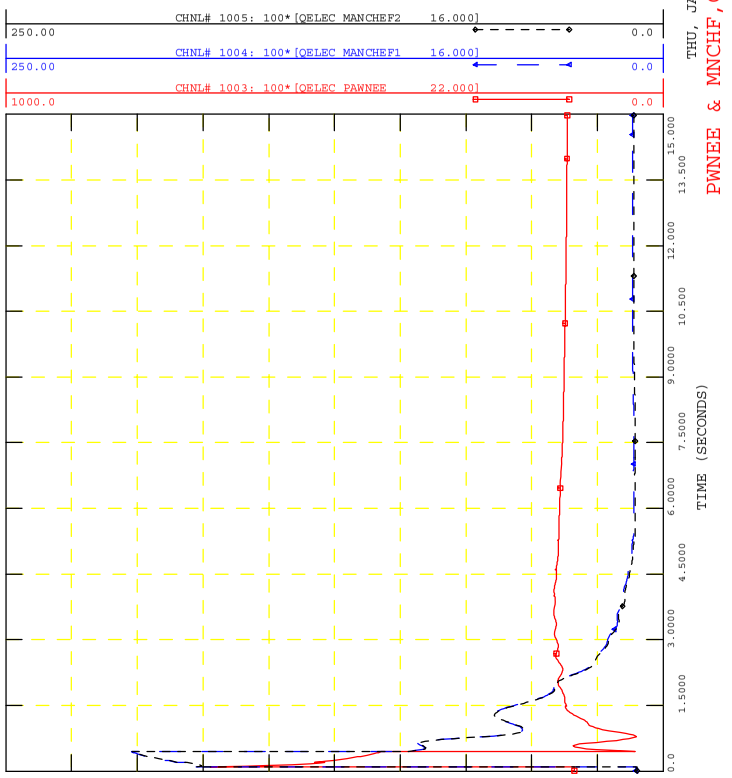
THU, JAN 19 2012 12:01




PWNEE & MNCHF, PELEC (MW)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

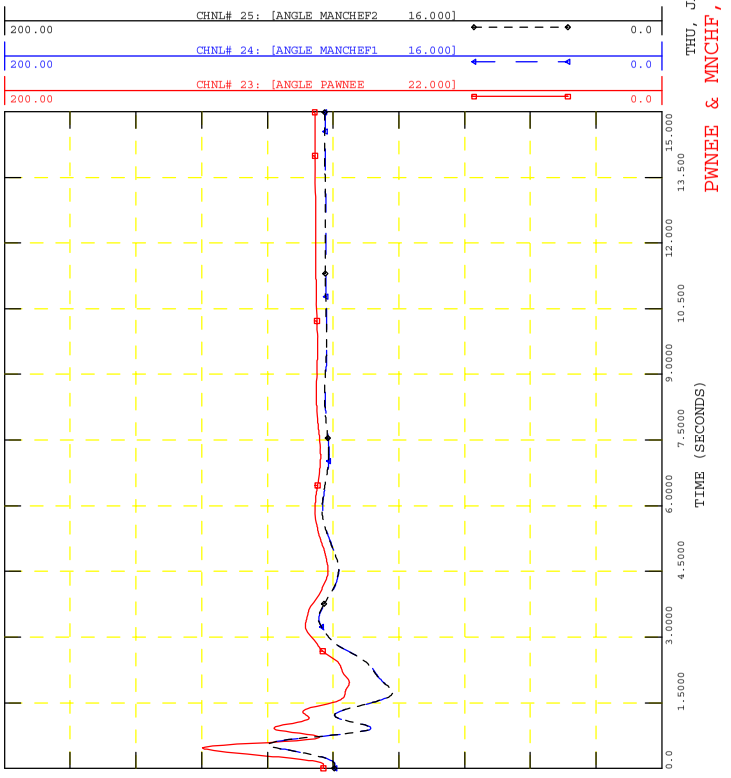
THU, JAN 19 2012 12:01




PWNEE & MNCHF, QELEC (MVAR)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

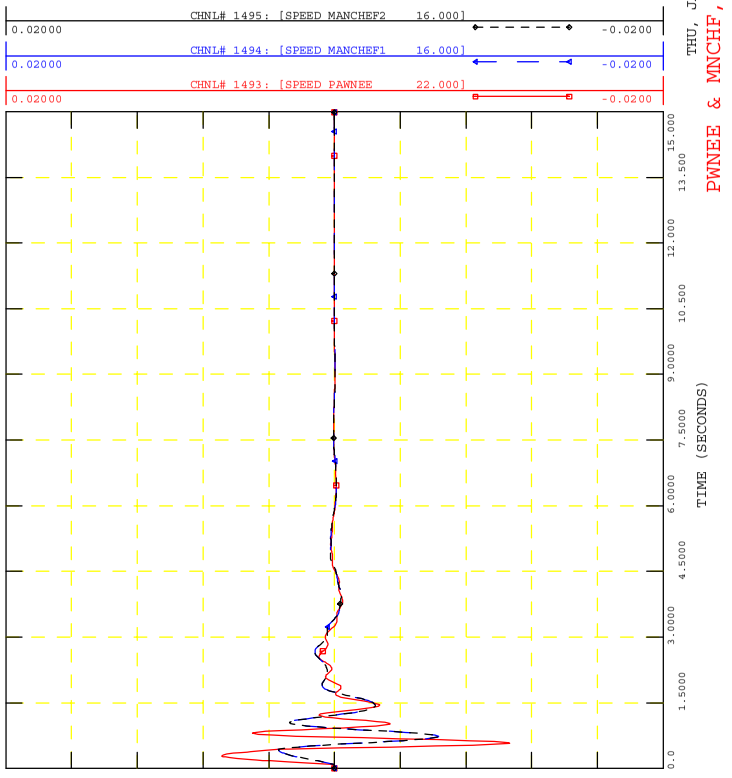
THU, JAN 19 2012 12:01




PWNEE & MNCHF, ANGLE (DEG)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_OFF.out

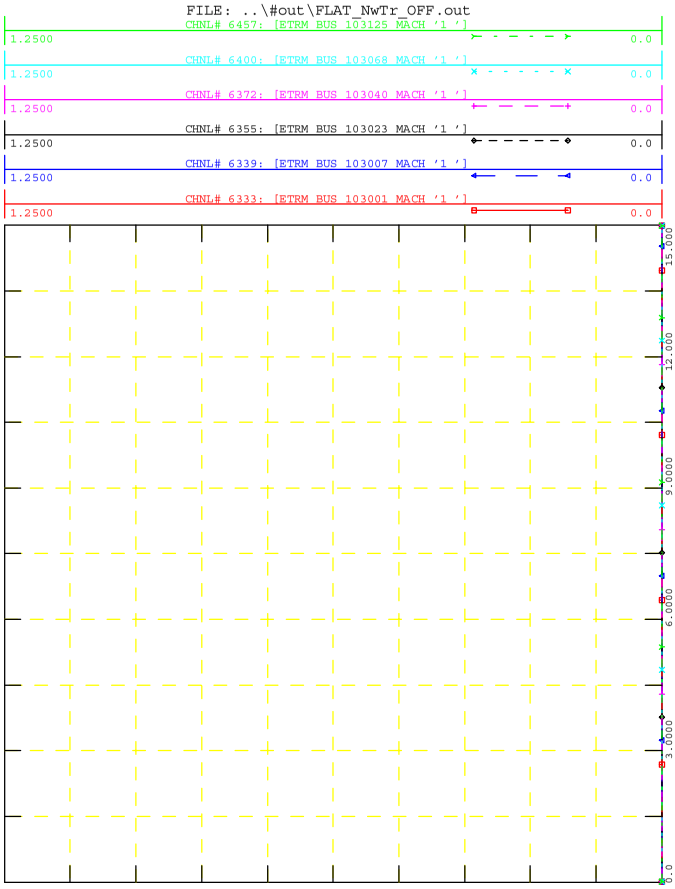
THU, JAN 19 2012 12:01




PWNEE & MNCHF, SPDDEV (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

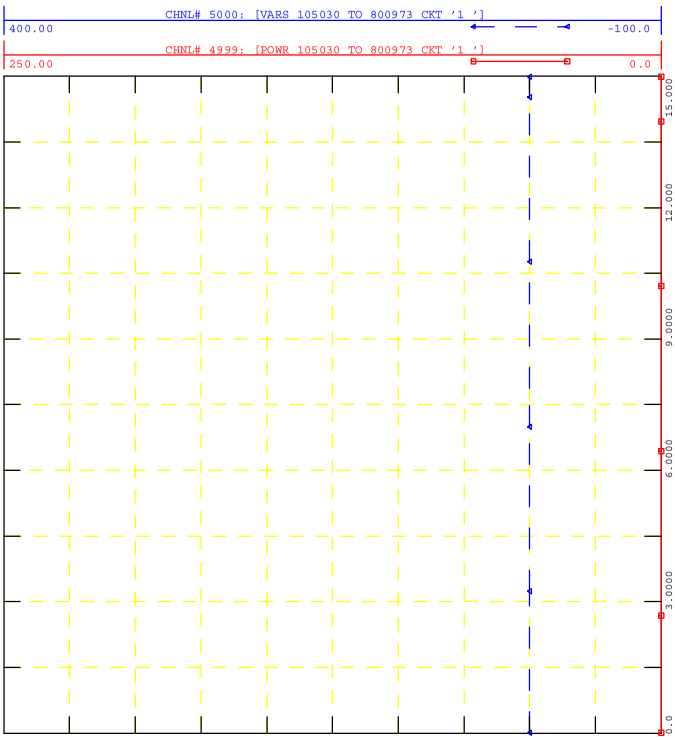
FILE: ..\#out\FLAT_NwTr_OFF.out




THU, JAN 19 2012 12:01
LIMON ETERM (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

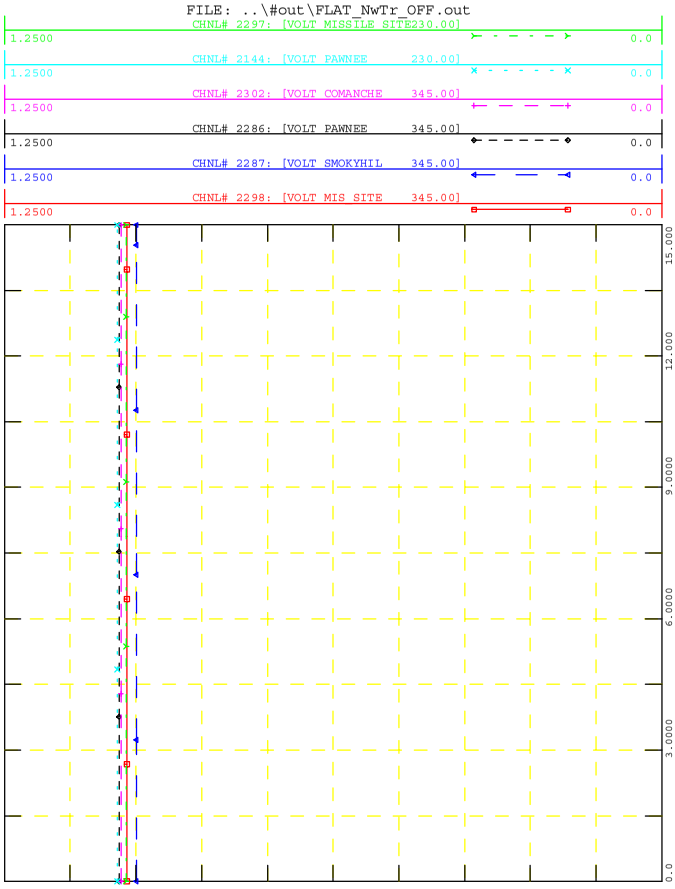
FILE: ..\#out\FLAT_NwTr_OFF.out




THU, JAN 19 2012 12:01
LIMON 345KV FLOWS-MW,MVAR

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_OFF.out




THU, JAN 19 2012 12:01
VOLTAGE (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

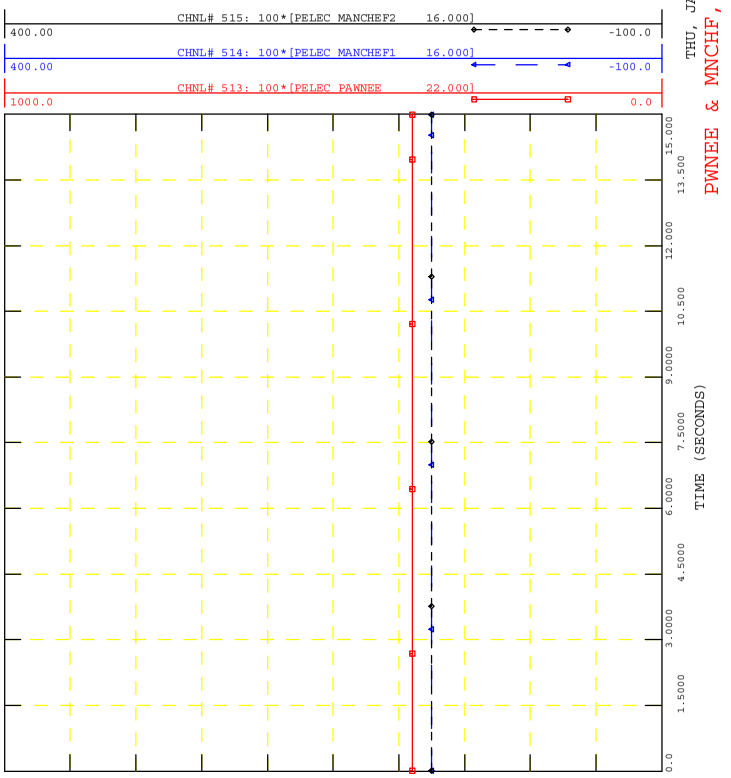
FILE: ..\#out\FLAT_NwTr_OFF.out


THU, JAN 19 2012 12:01
LIMON POWER (MW)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_OFF.out

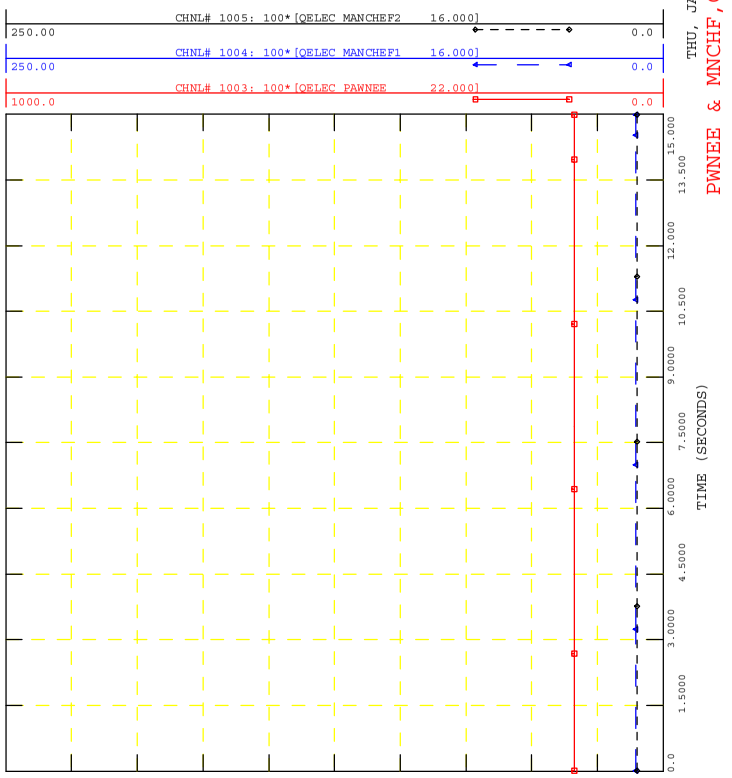
THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_OFF.out

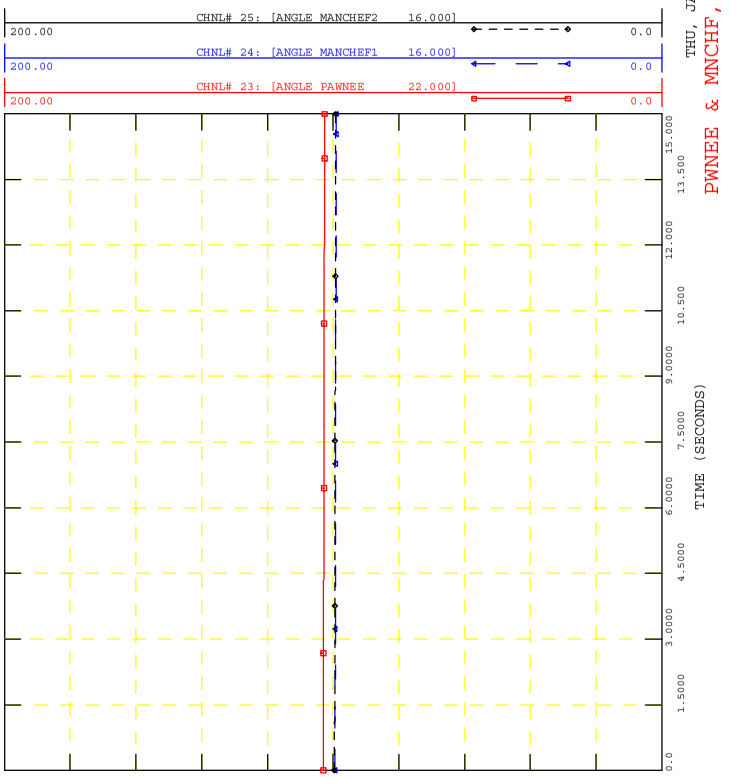
THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_OFF.out

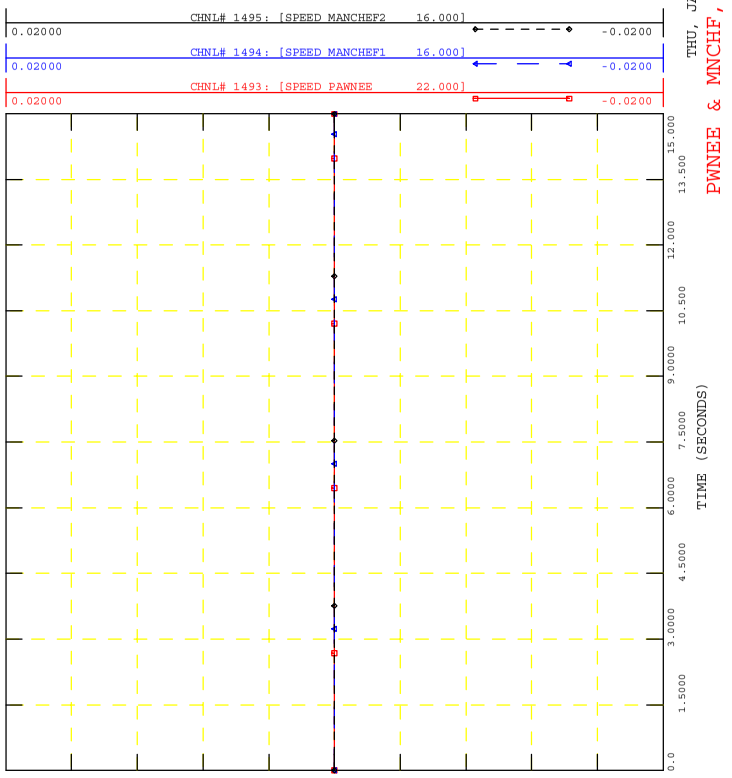
THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_OFF.out

THU, JAN 19 2012 12:01



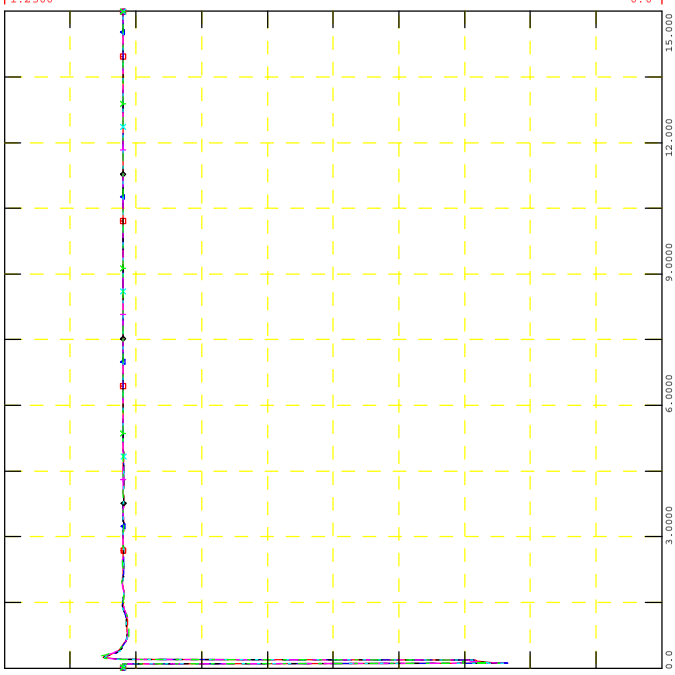
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0



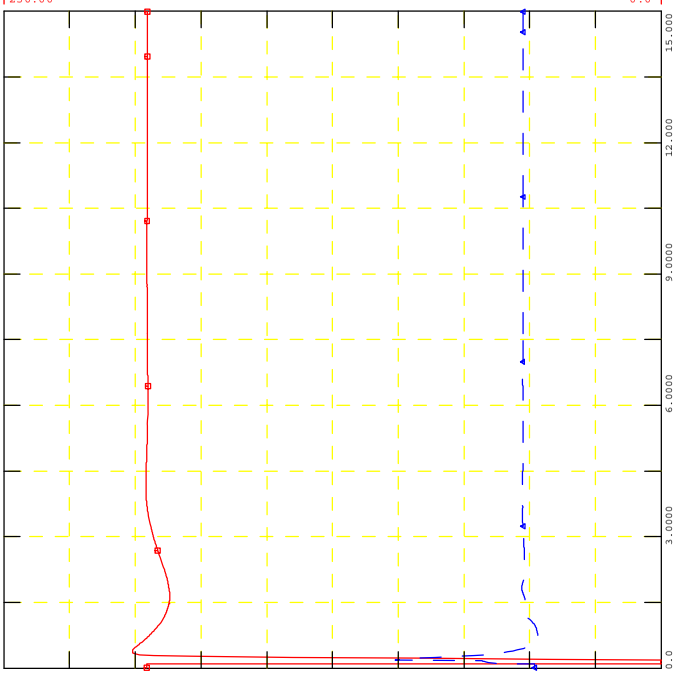

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 / -100.0

CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 / 0.0



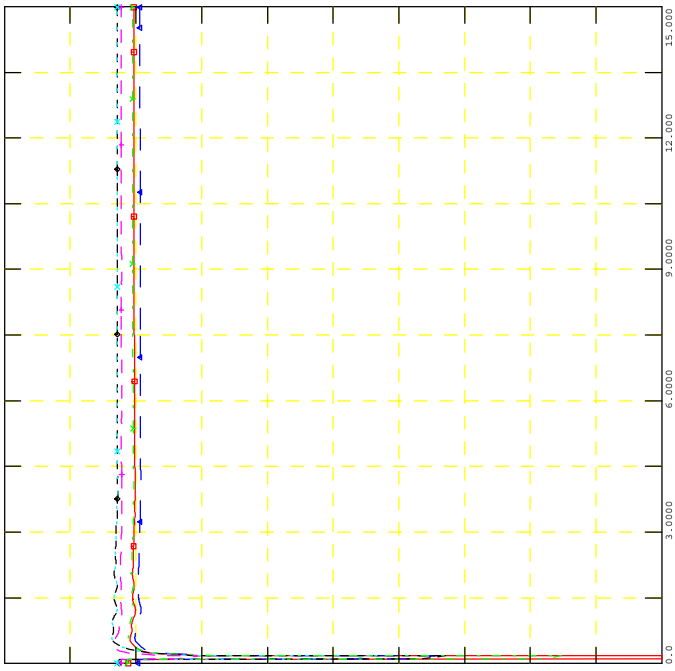

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0



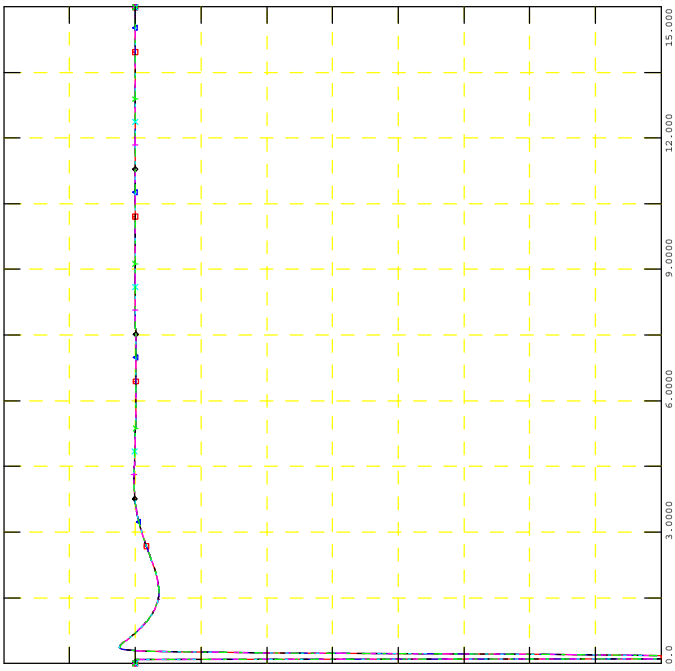

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00

LIMON POWER (MW)

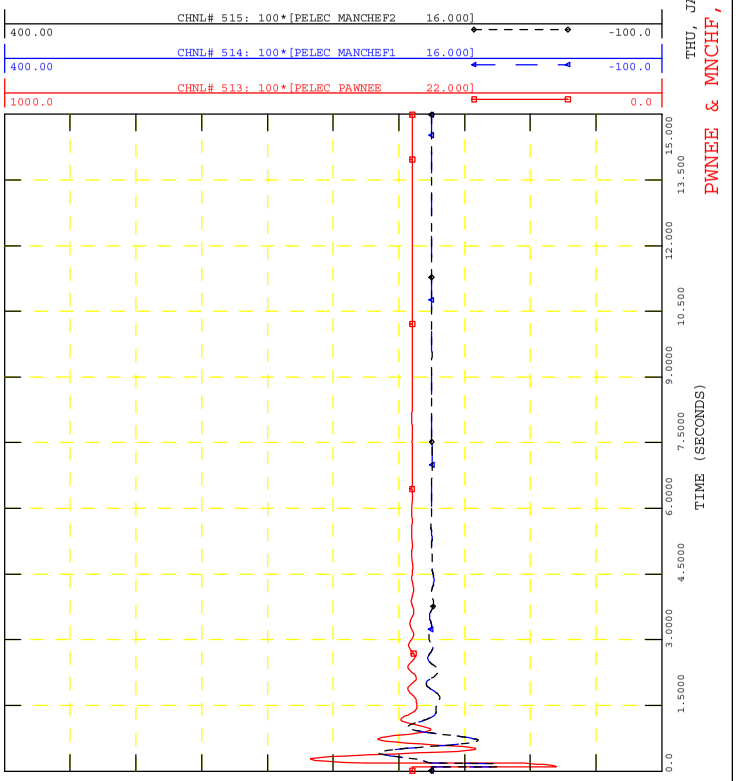
CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0



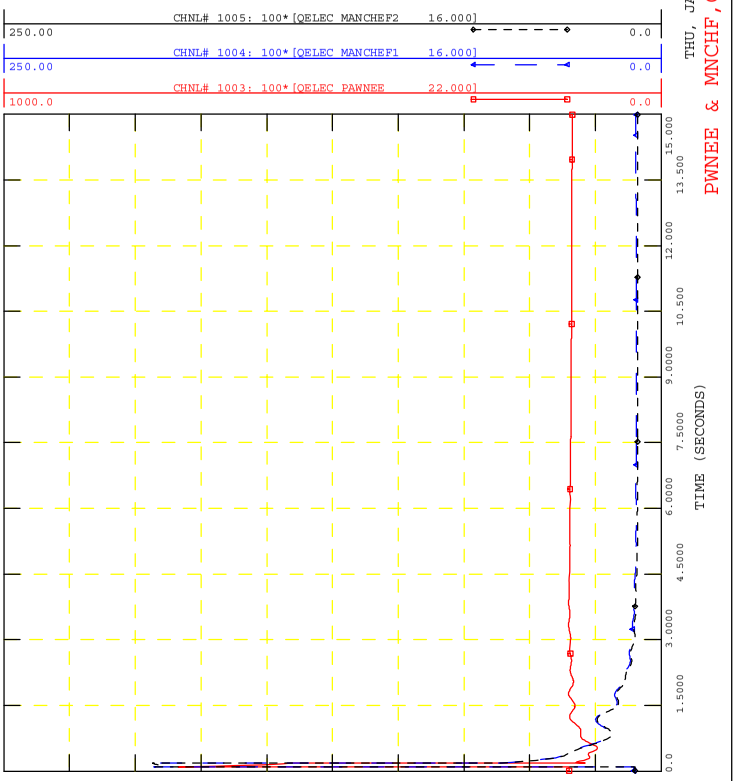
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00



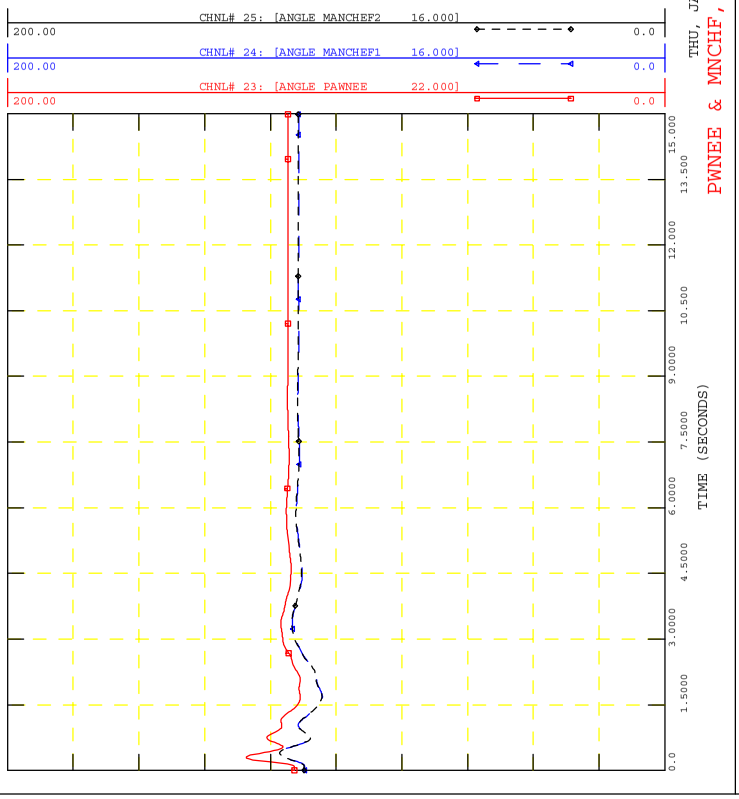

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00



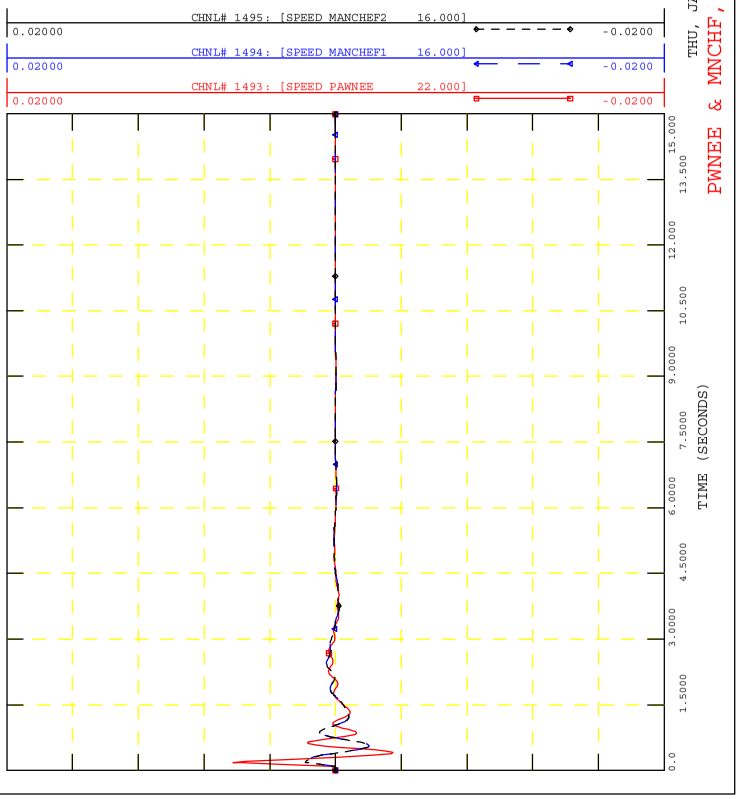

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC100: 3PH @ MISSILE SITE 345 KV ON PAWNEE 345 KV LINE
MISSILE SITE CLEARS IN 5~, PAWNEE CLEARS IN 5~
FILE: ..\#out\NC100_NwTr_ON.out

THU, JAN 19 2012 12:00



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00

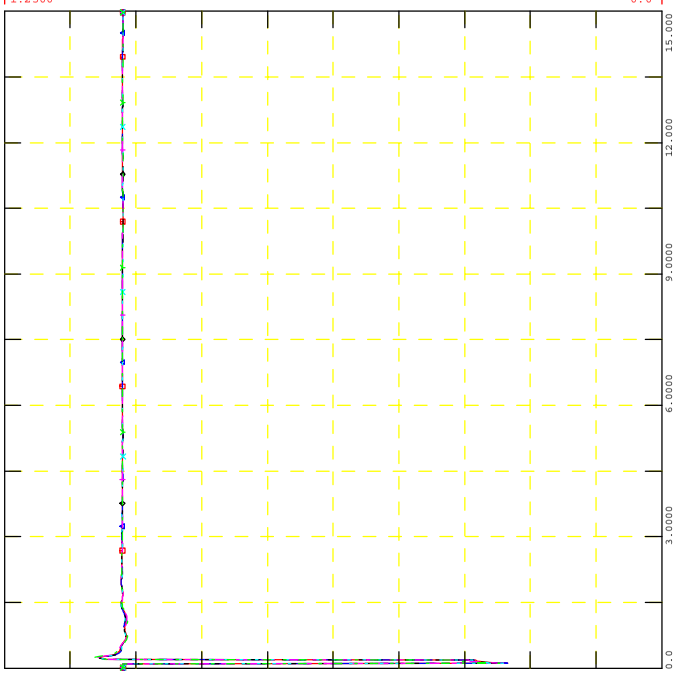
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00

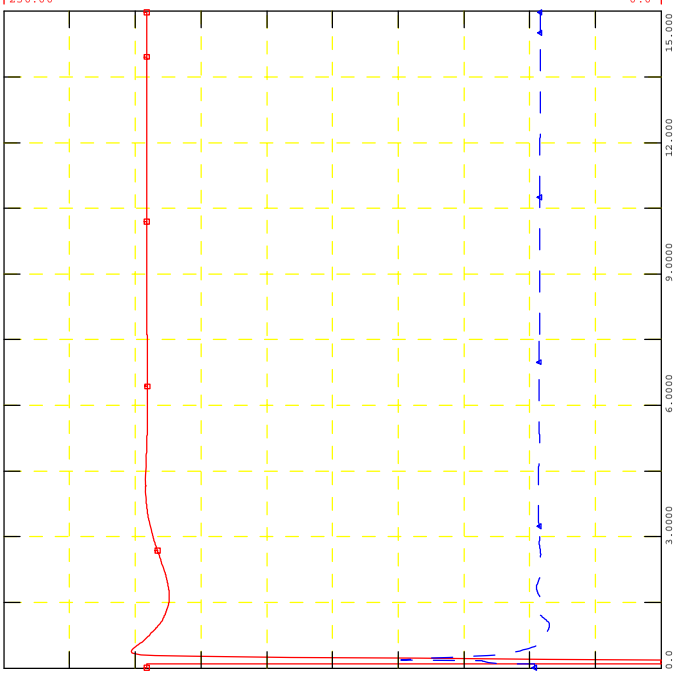
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 / -100.0

CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 / 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00

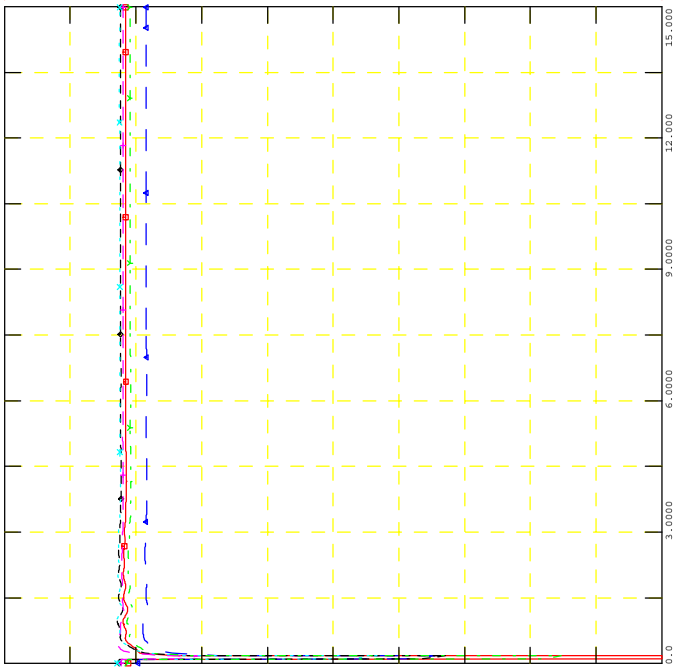
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00

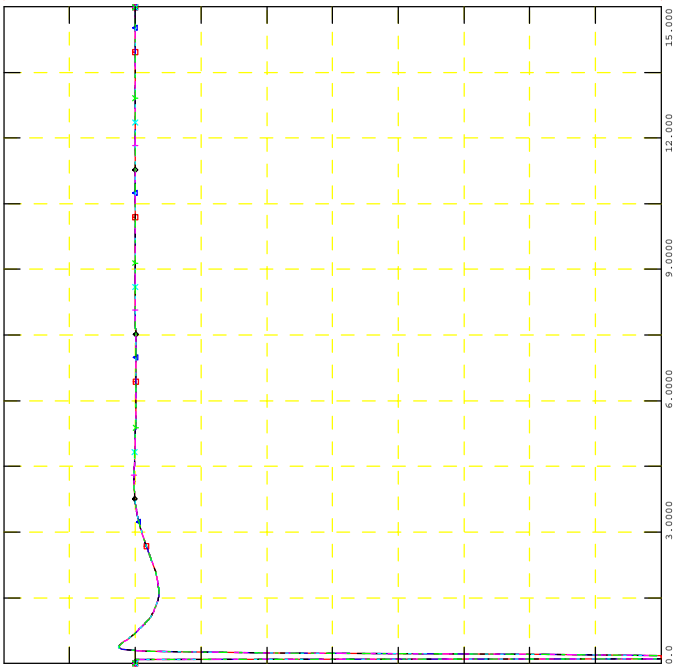
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

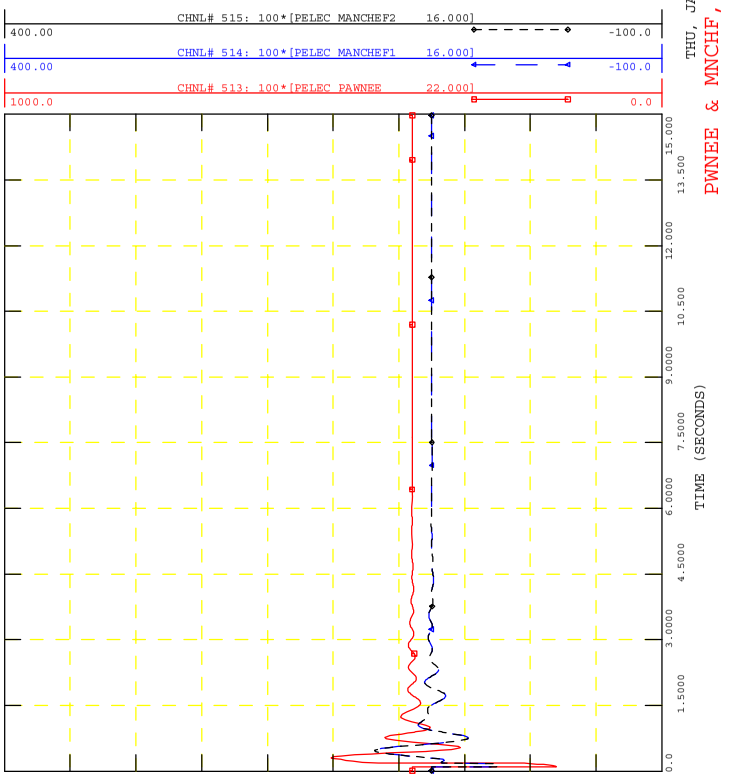
0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



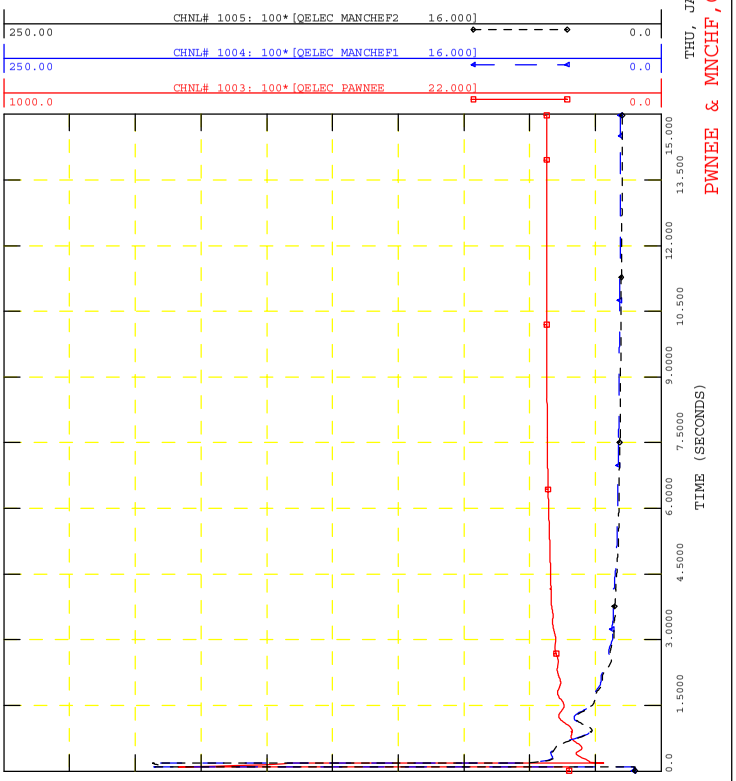
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00



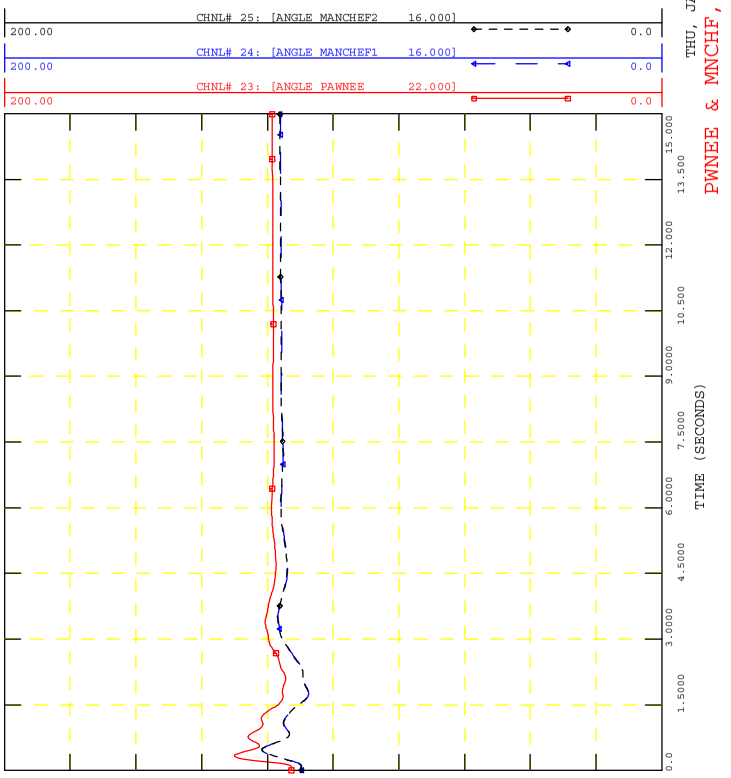

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00



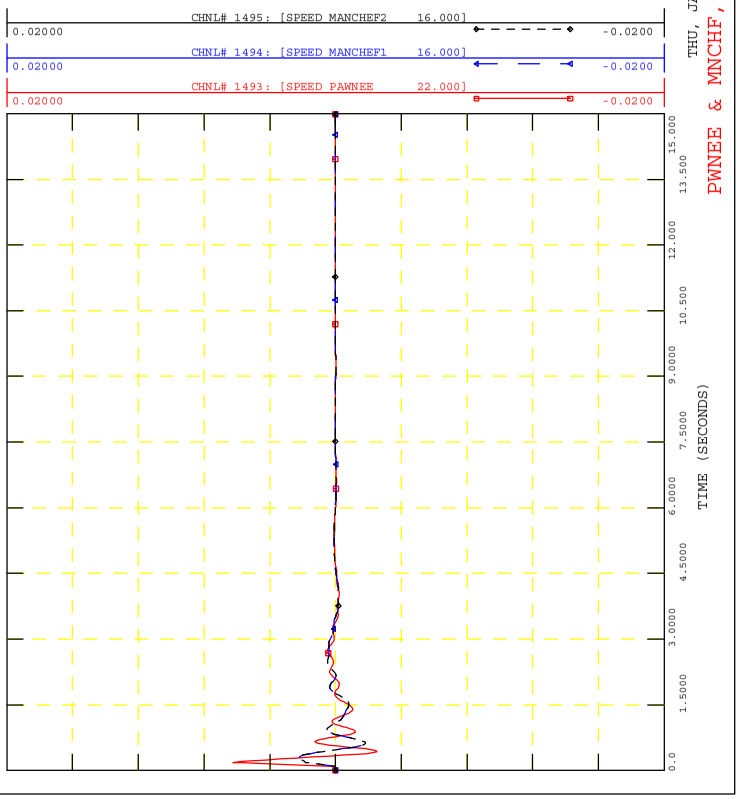

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC101: 3PH @ MISSILE SITE 345 KV ON SMOKY HILL 345 KV LINE
MISSILE SITE CLEARS IN 5~, SMOKY HILL CLEARS IN 5~
FILE: ..\#out\NC101_NwTr_ON.out

THU, JAN 19 2012 12:00

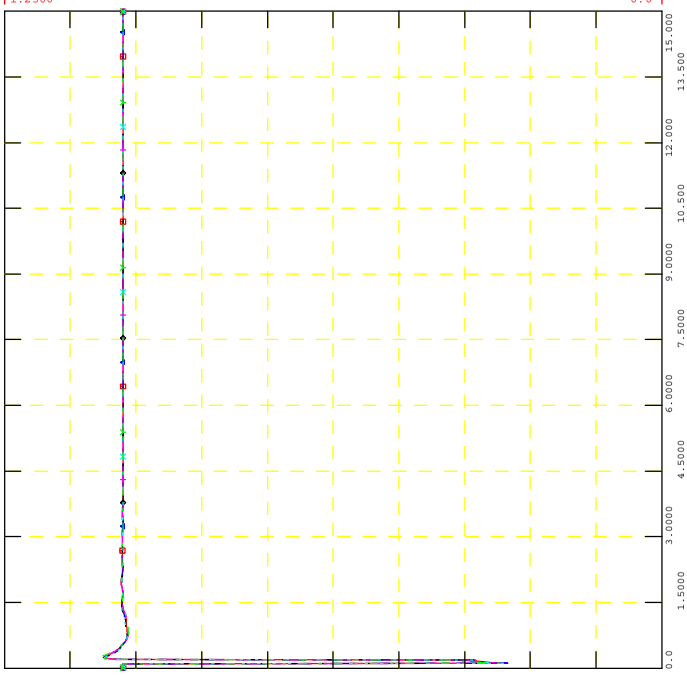


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

THU, JAN 19 2012 12:00

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
1.2500 0.0
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
1.2500 0.0
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
1.2500 0.0
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
1.2500 0.0
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
1.2500 0.0
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']
1.2500 0.0

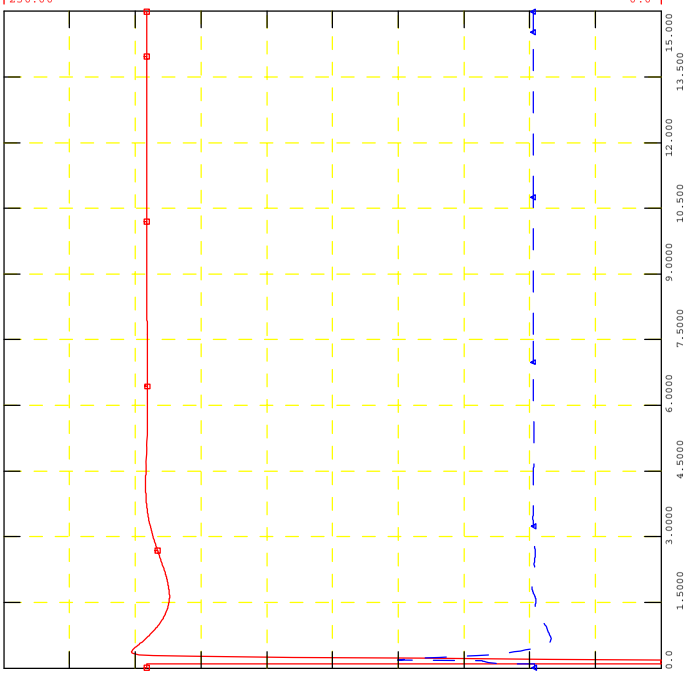



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

THU, JAN 19 2012 12:00

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 -100.0
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 0.0

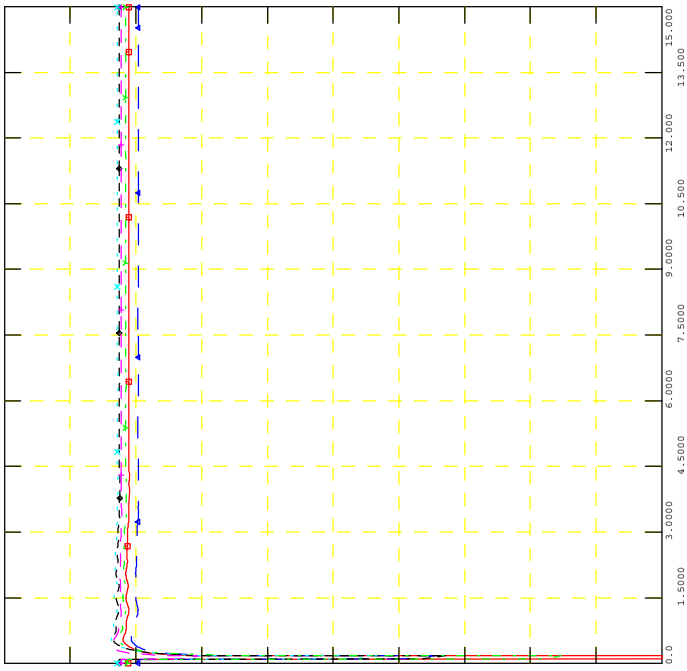



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

THU, JAN 19 2012 12:00

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
1.2500 0.0
CHNL# 2144: [VOLT PAWNEE 230.00]
1.2500 0.0
CHNL# 2302: [VOLT COMANCHE 345.00]
1.2500 0.0
CHNL# 2286: [VOLT PAWNEE 345.00]
1.2500 0.0
CHNL# 2287: [VOLT SMOKYHIL 345.00]
1.2500 0.0
CHNL# 2298: [VOLT MIS SITE 345.00]
1.2500 0.0

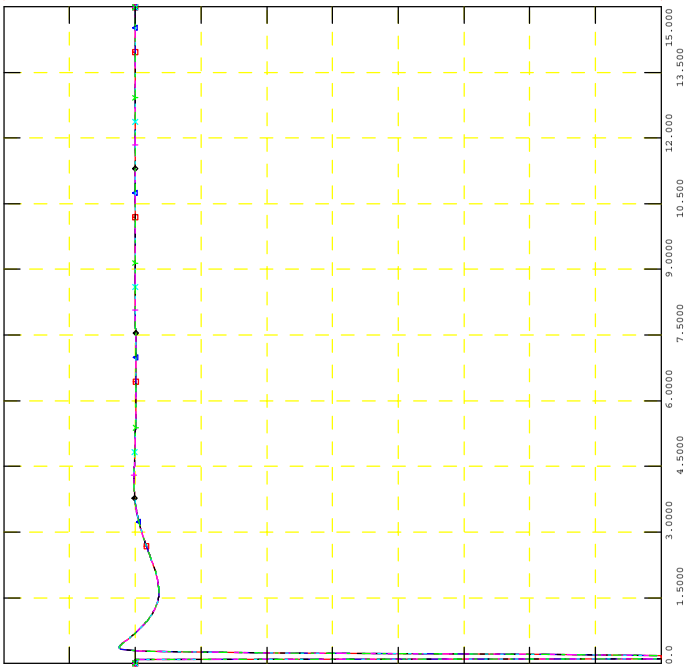



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

THU, JAN 19 2012 12:00

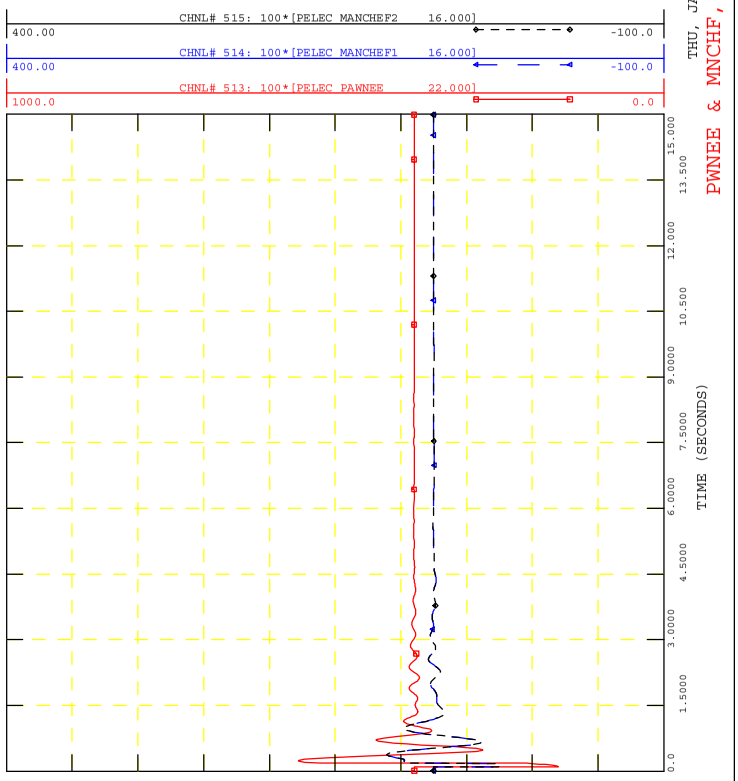
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
2.0000 0.0
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
2.0000 0.0
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
2.0000 0.0
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
2.0000 0.0
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
2.0000 0.0
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']
2.0000 0.0



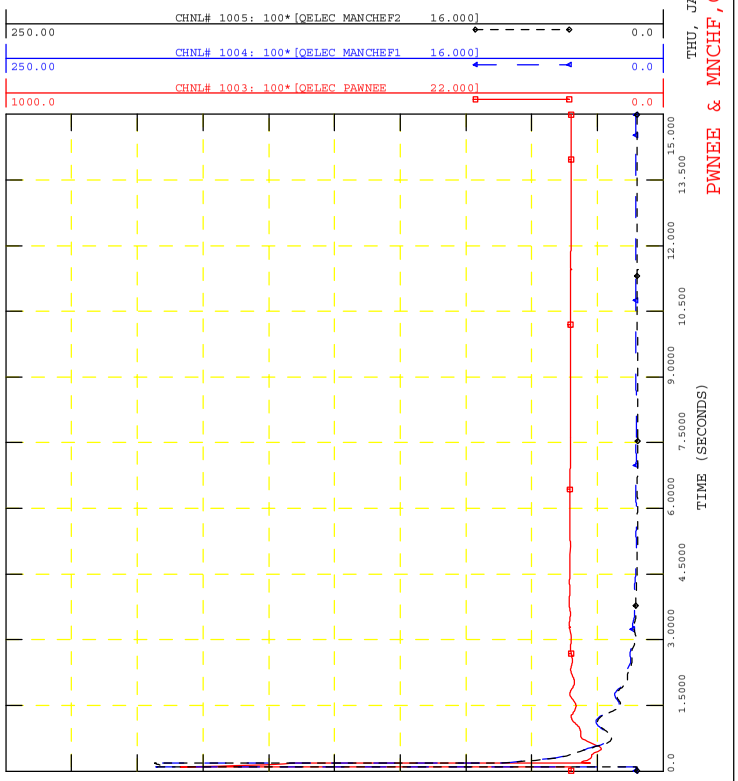
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

THU, JAN 19 2012 12:00



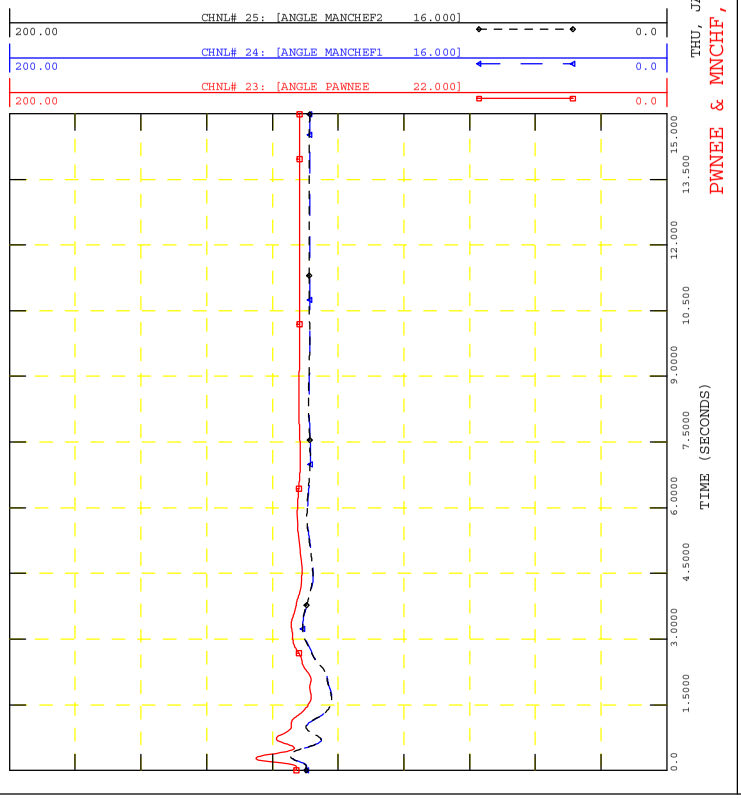

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

THU, JAN 19 2012 12:00



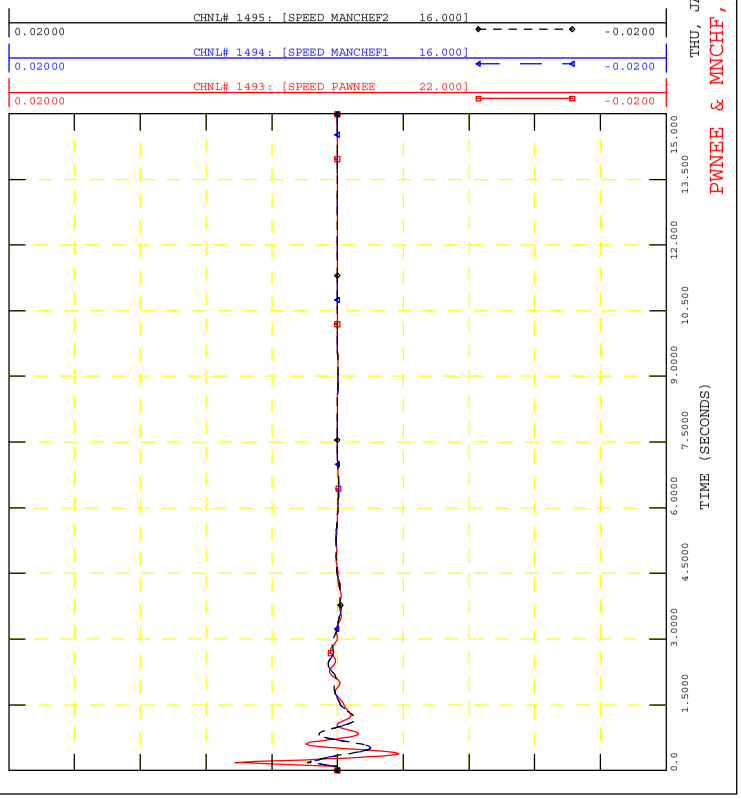

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

THU, JAN 19 2012 12:00




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC102: 3PH @ MISSILE SITE 345 KV ON 345/230 KV TR#1
MISSILE SITE TR#1 CLEARS IN 5 CYCLES
FILE: ..\#out\NC102_NwTr_ON.out

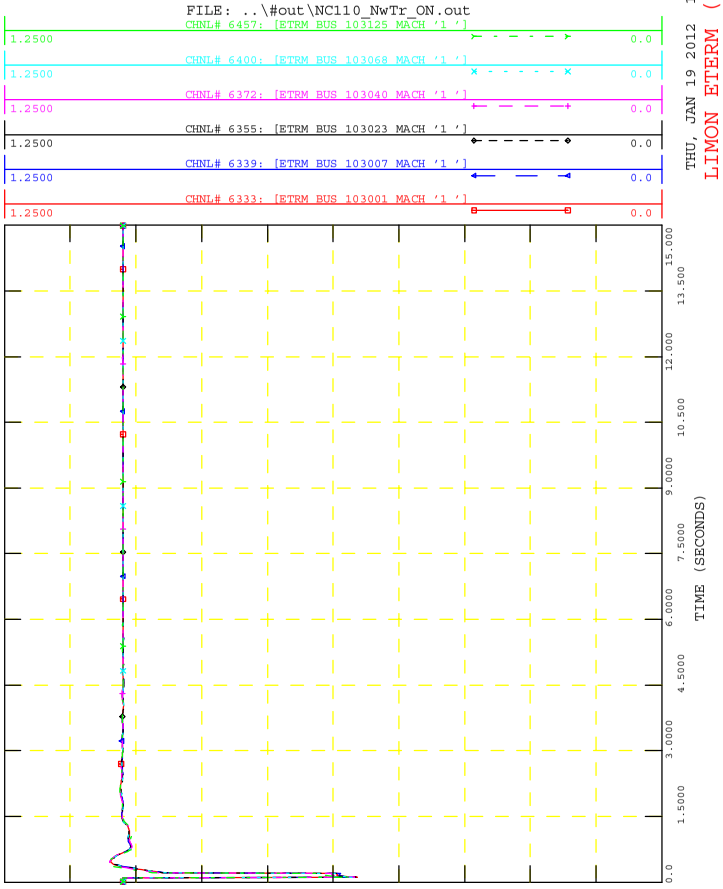
THU, JAN 19 2012 12:00



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

THU, JAN 19 2012 12:00

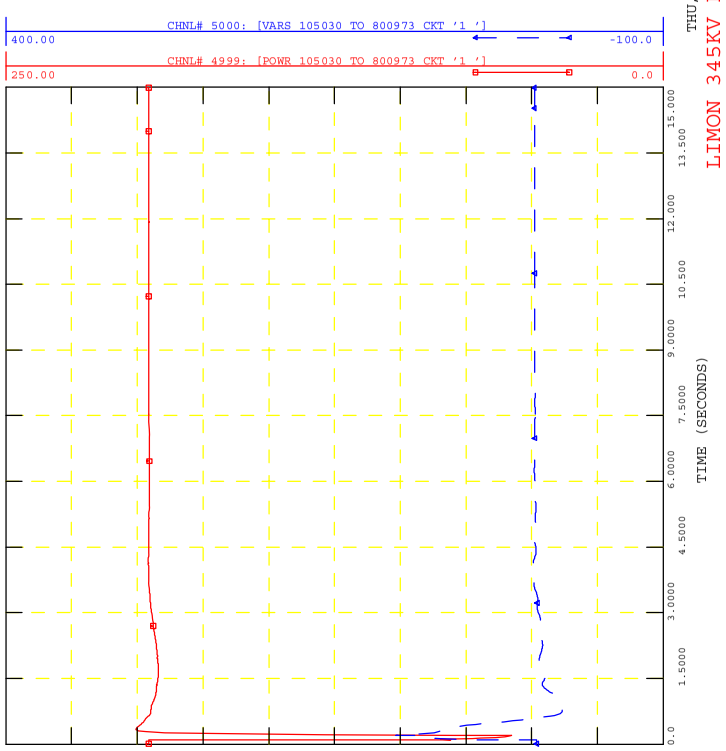
LIMON ETERM (PU)




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

THU, JAN 19 2012 12:00

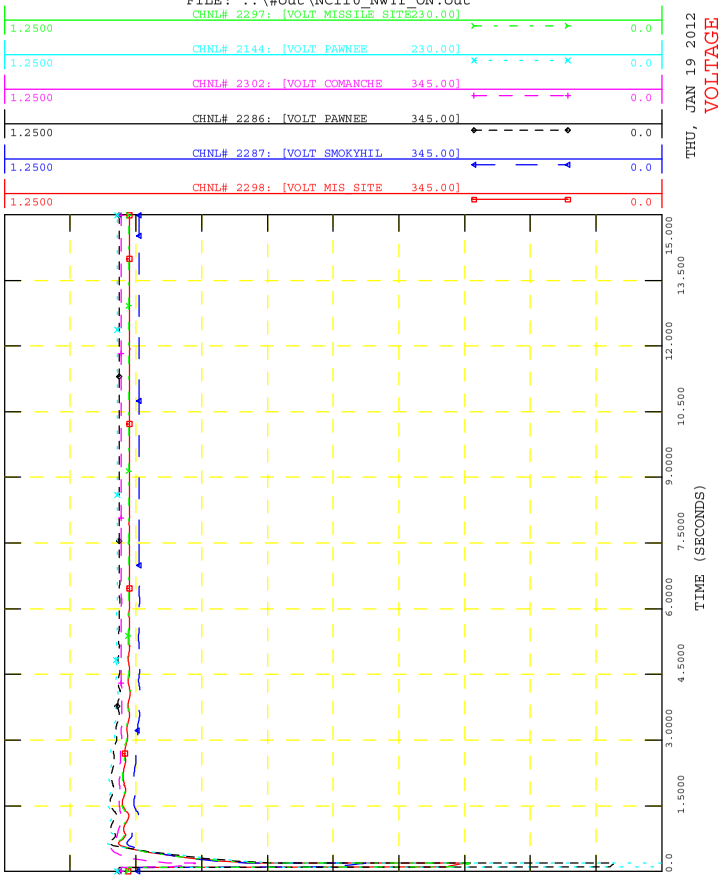
LIMON 345KV FLOWS-MW,MVAR




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

THU, JAN 19 2012 12:00

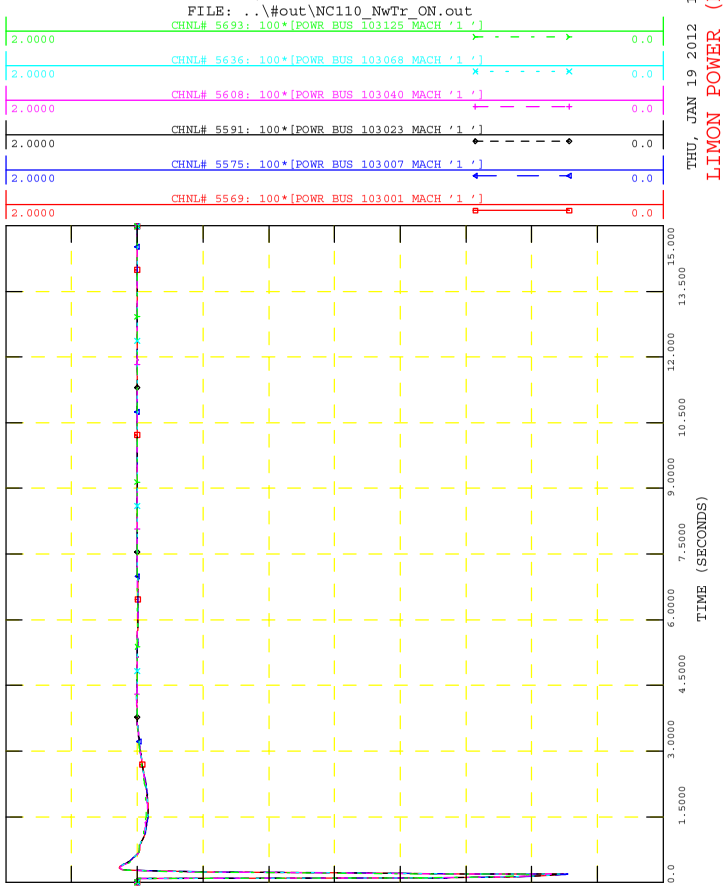
VOLTAGE (PU)




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

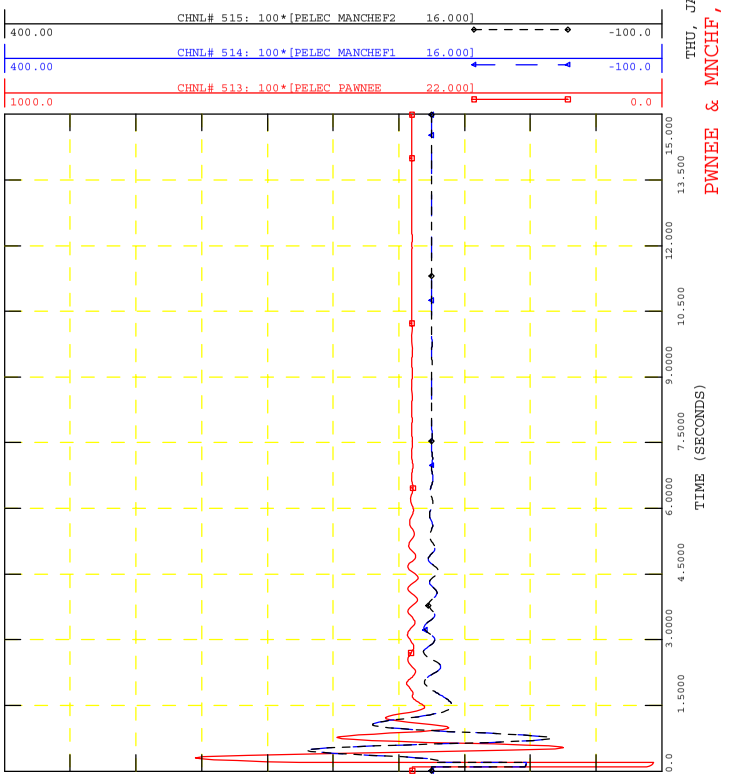
THU, JAN 19 2012 12:00

LIMON POWER (MW)



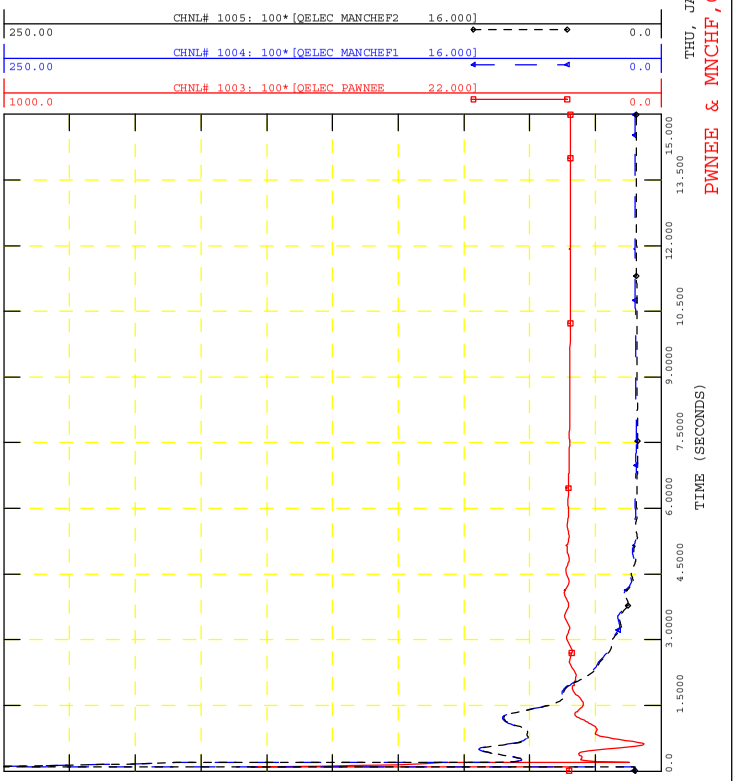
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

THU, JAN 19 2012 12:00



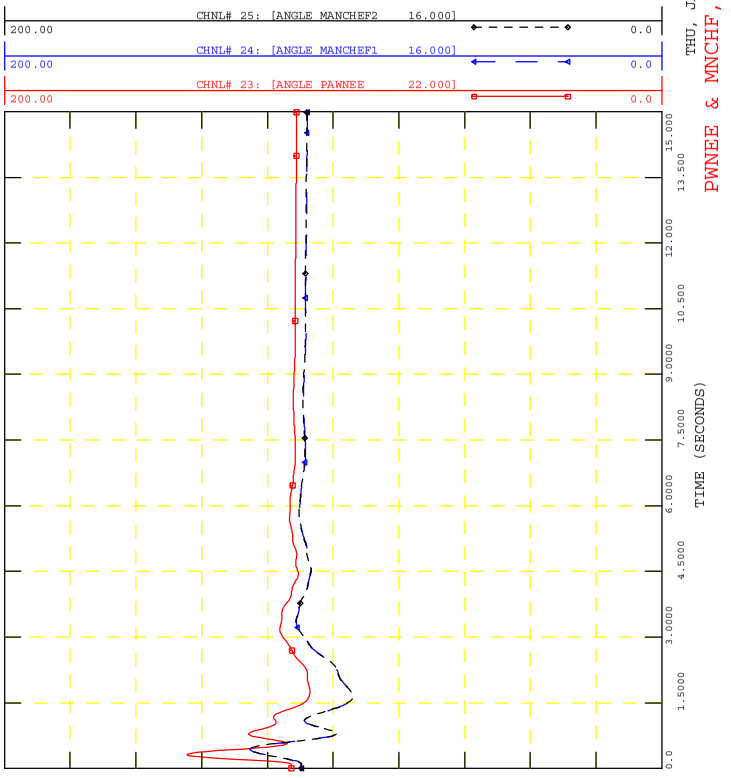

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

THU, JAN 19 2012 12:00



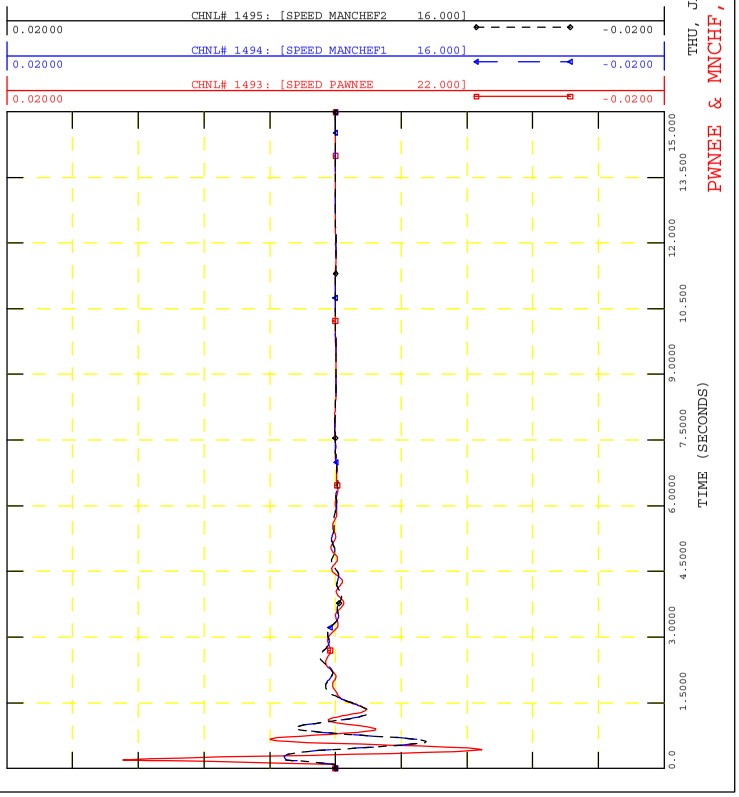

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

THU, JAN 19 2012 12:00




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC110: 3PH @ PAWNEE 230 KV ON STORY 230 KV LINE
PAWNEE CLEARS IN 6 ~, STORY CLEARS IN 6 ~
FILE: ..\#out\NC110_NwTr_ON.out

THU, JAN 19 2012 12:00



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00

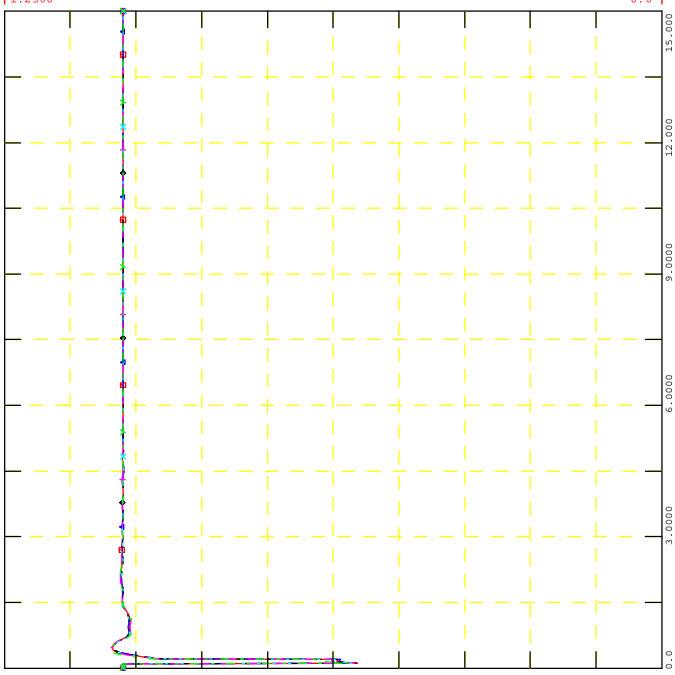
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00

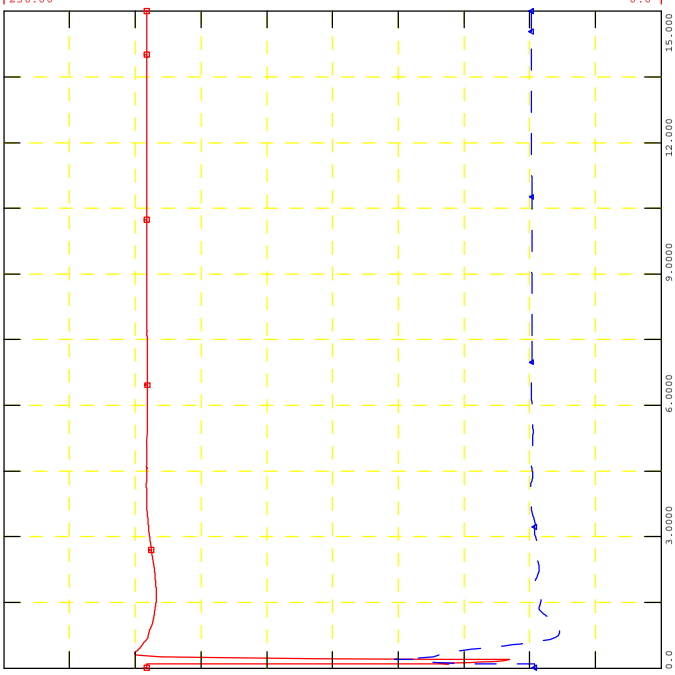
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 / -100.0

CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00

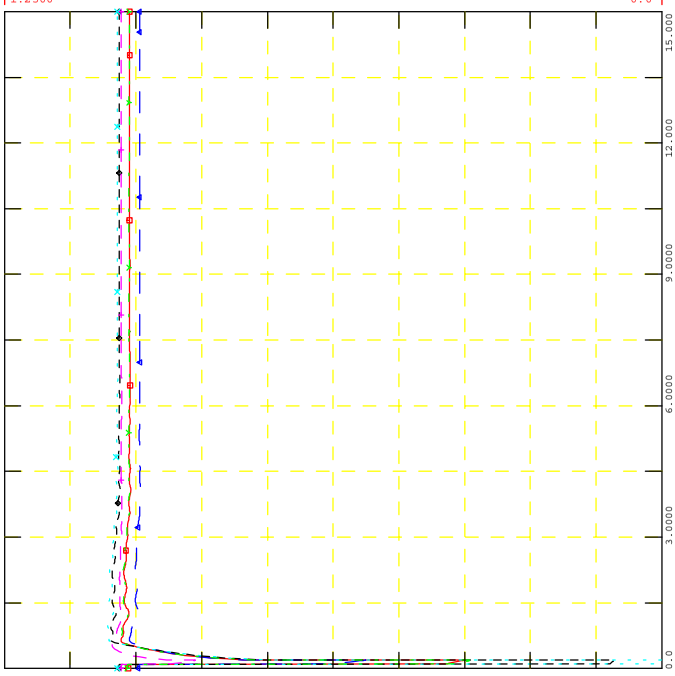
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00

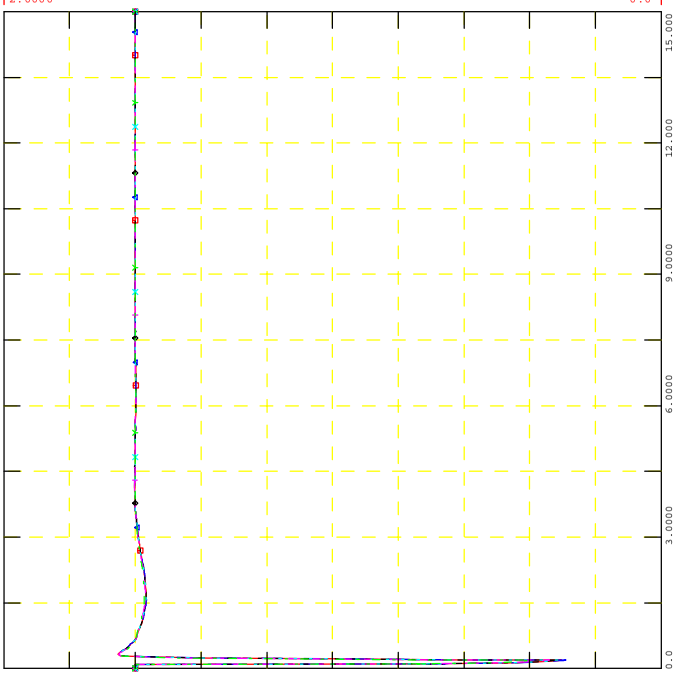
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

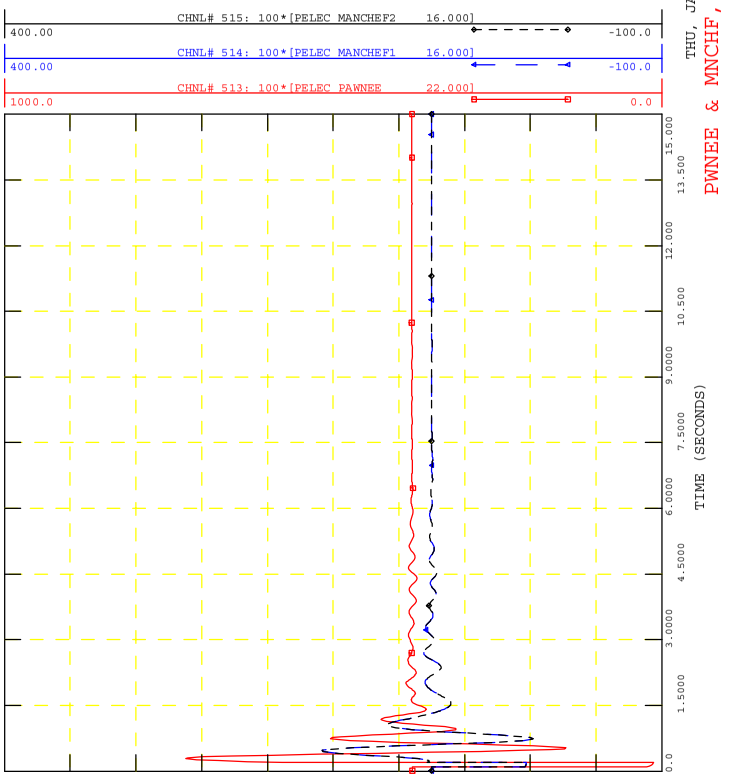
TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



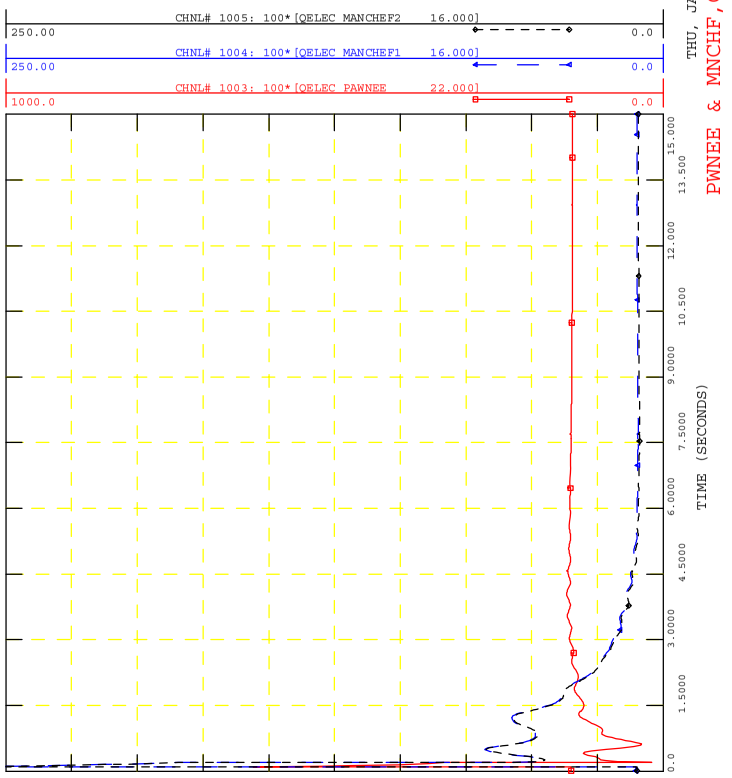
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00



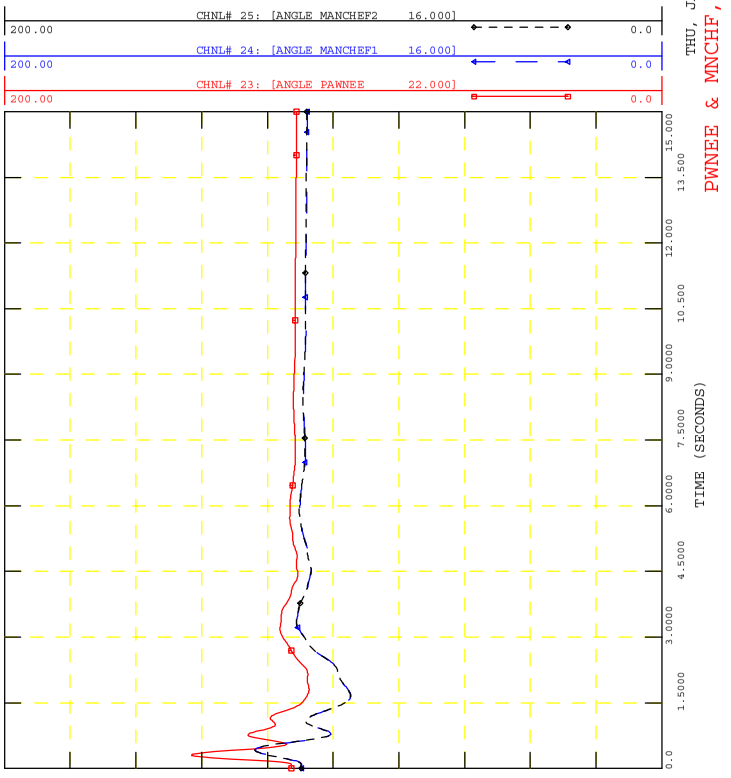

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00



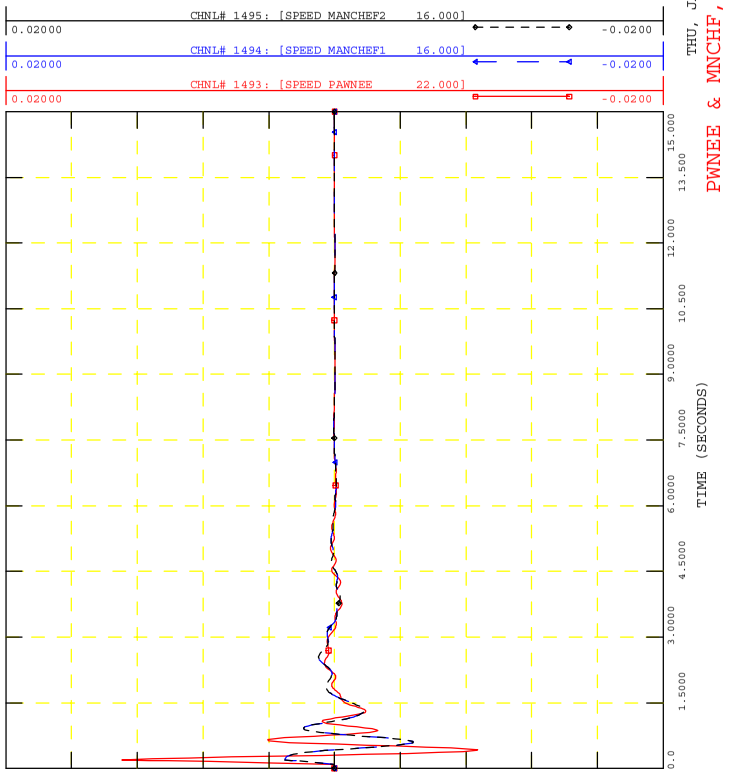

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC111: 3PH @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
PAWNEE CLEARS IN 6 ~, FT LUPTON CLEARS IN 6 ~
FILE: ..\#out\NC111_NwTr_ON.out

THU, JAN 19 2012 12:00



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00

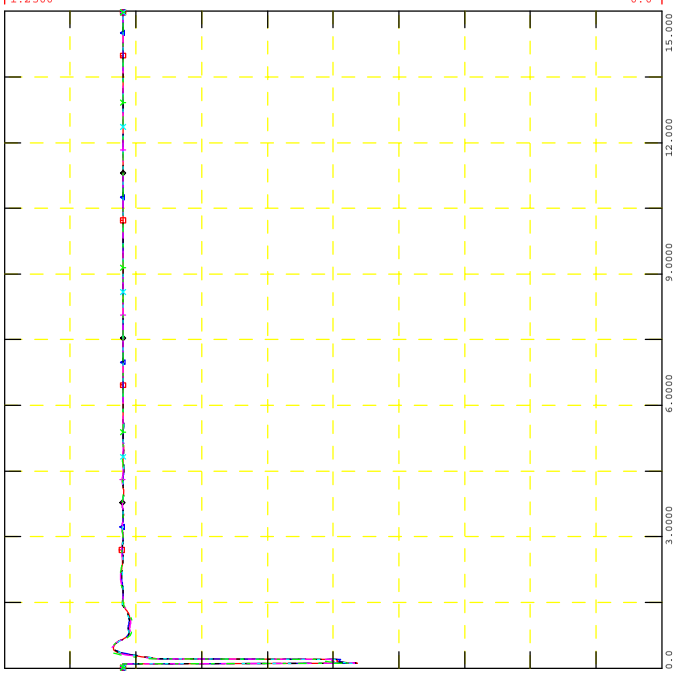
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00

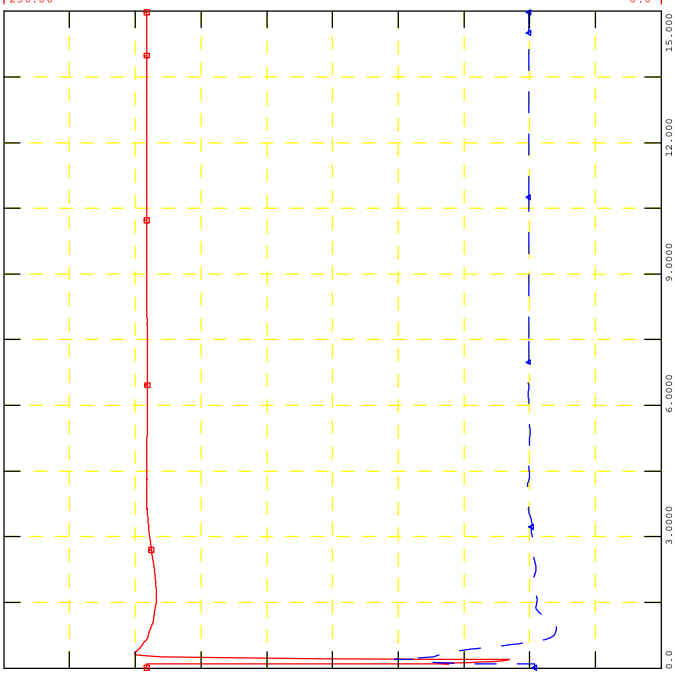
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 / -100.0

CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00

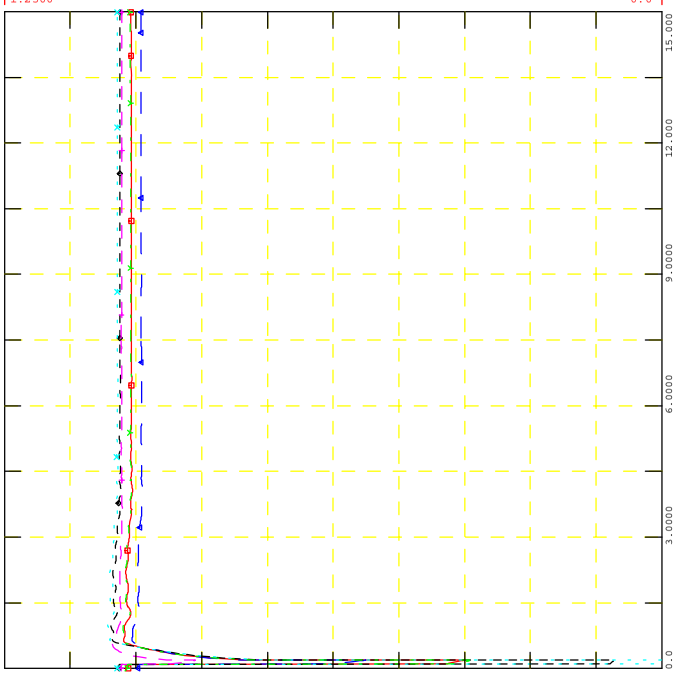
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00

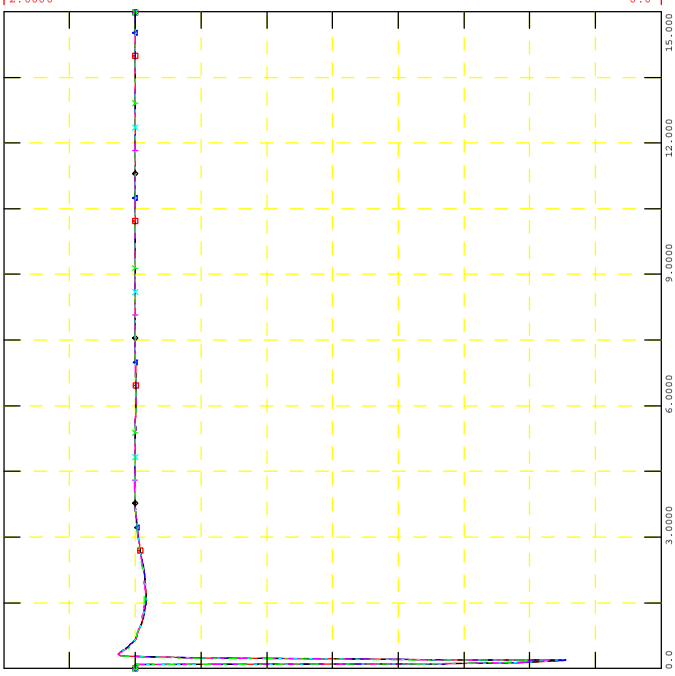
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

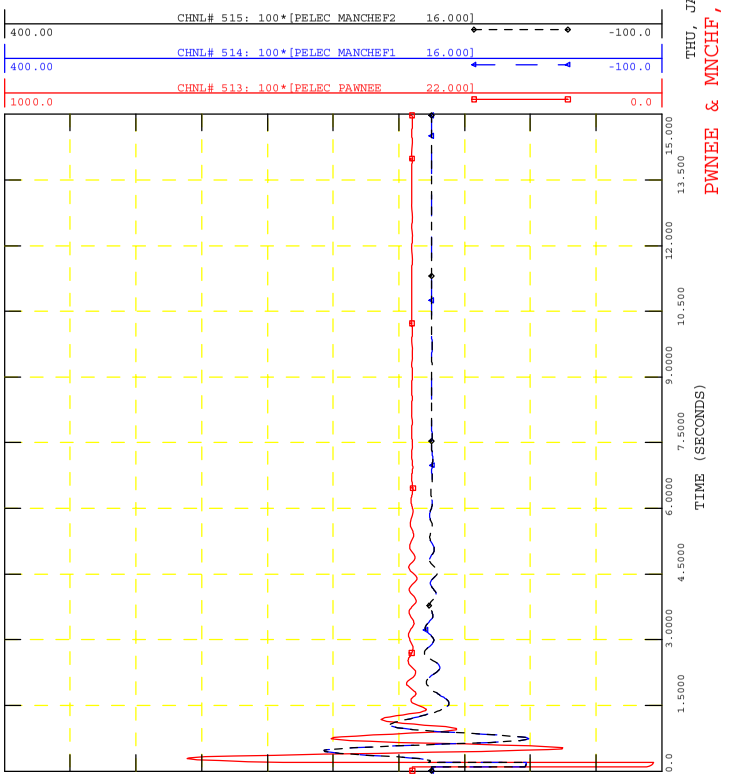
TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



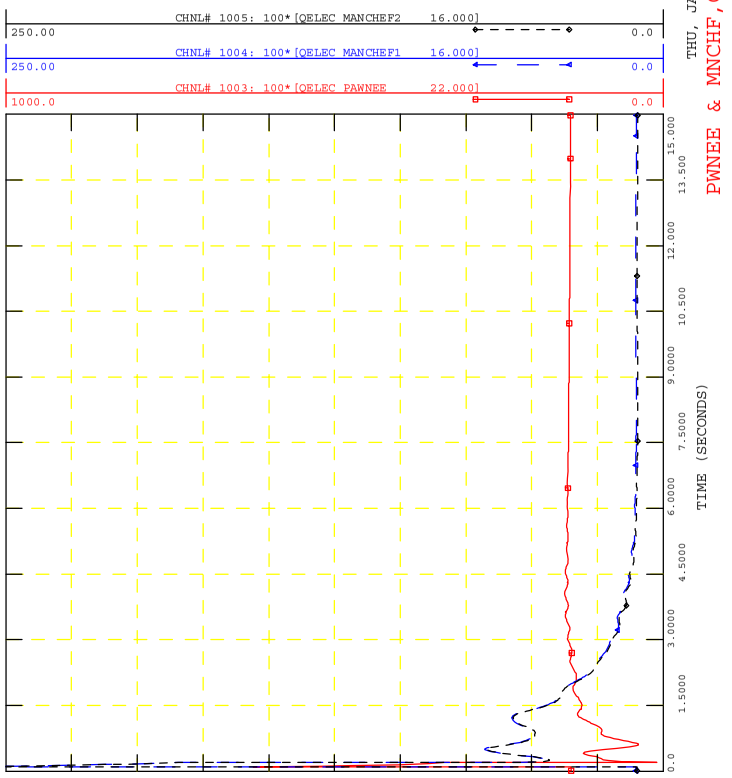
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00



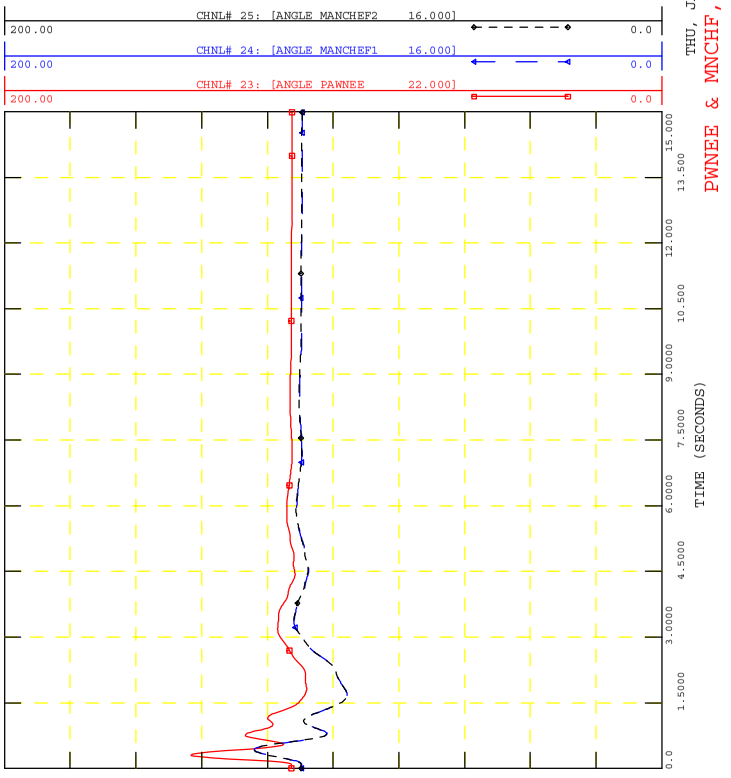

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00



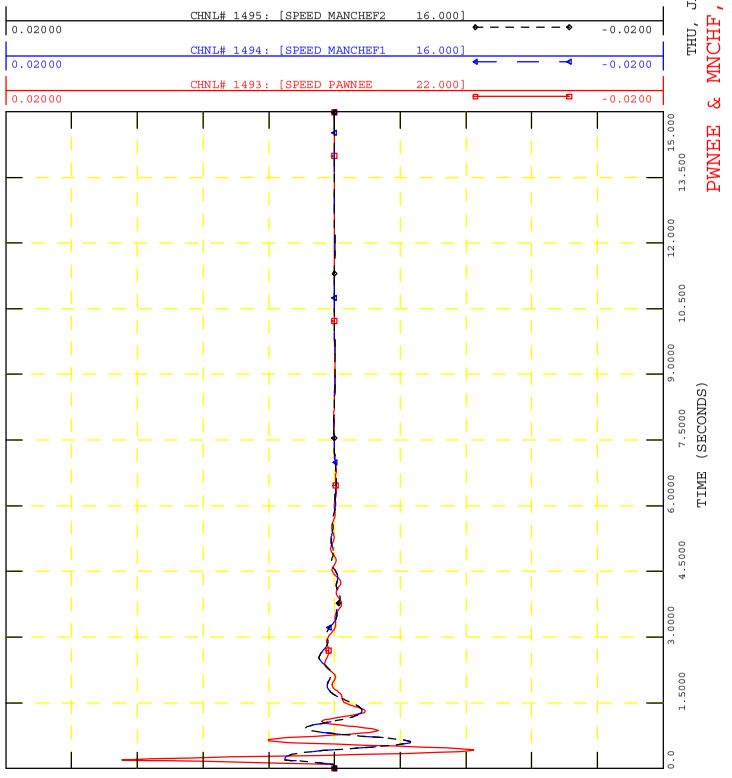

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC112: 3PH @ PAWNEE 230 KV ON BRICK CENTER 230 KV LINE
PAWNEE CLEARS IN 6 ~, BRICK CENTER CLEARS IN 6 ~
FILE: ..\#out\NC112_NwTr_ON.out

THU, JAN 19 2012 12:00



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

THU, JAN 19 2012 12:00

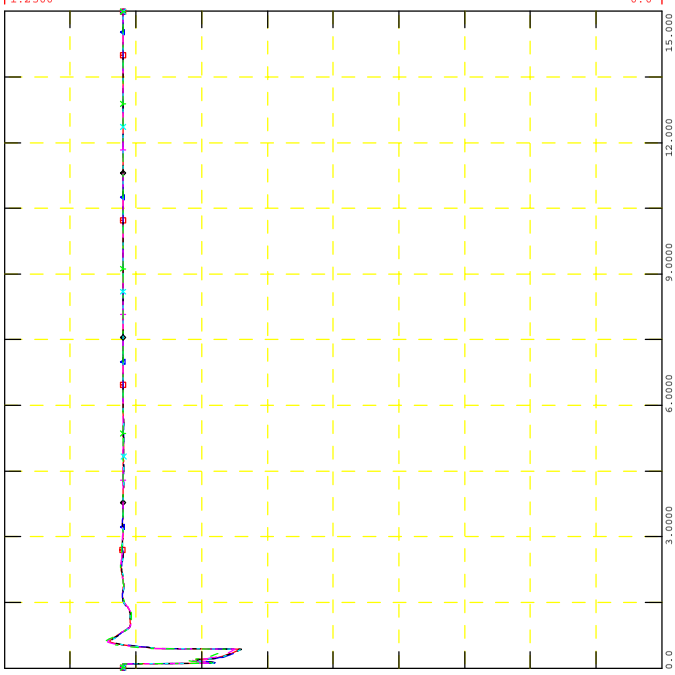
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

THU, JAN 19 2012 12:00

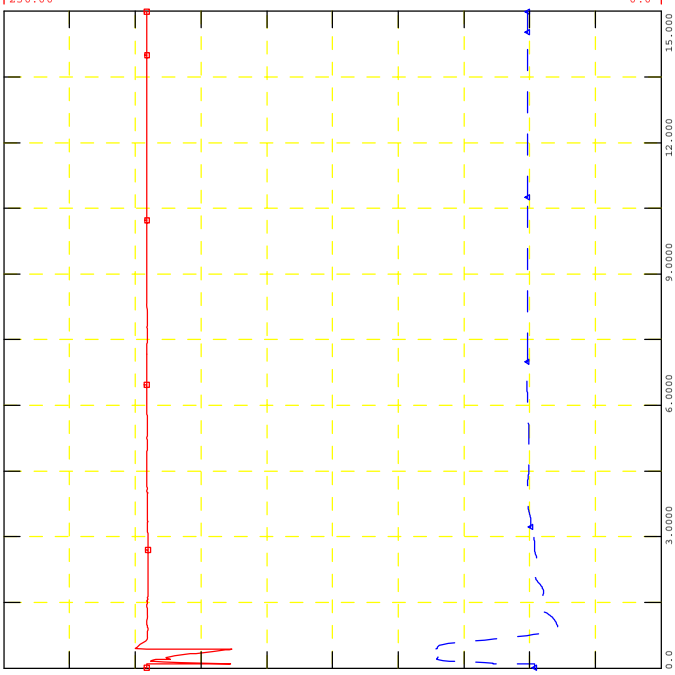
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

THU, JAN 19 2012 12:00

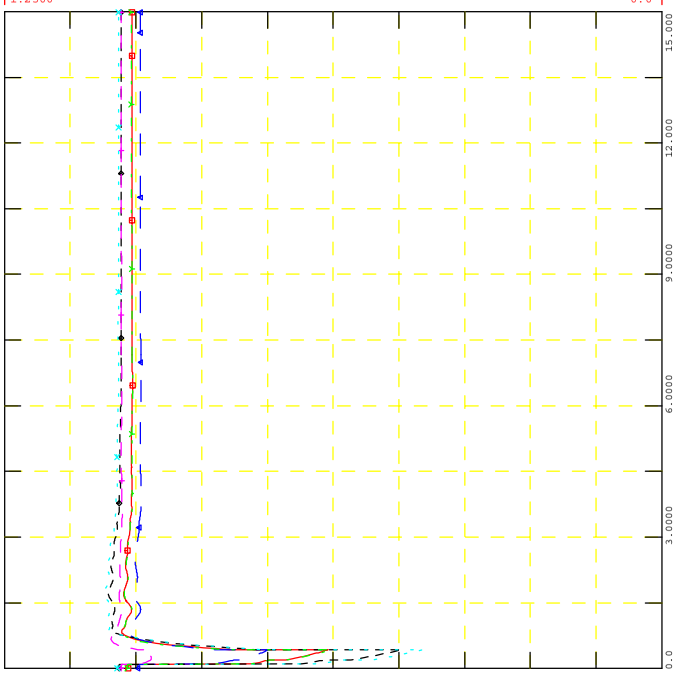
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

THU, JAN 19 2012 12:00

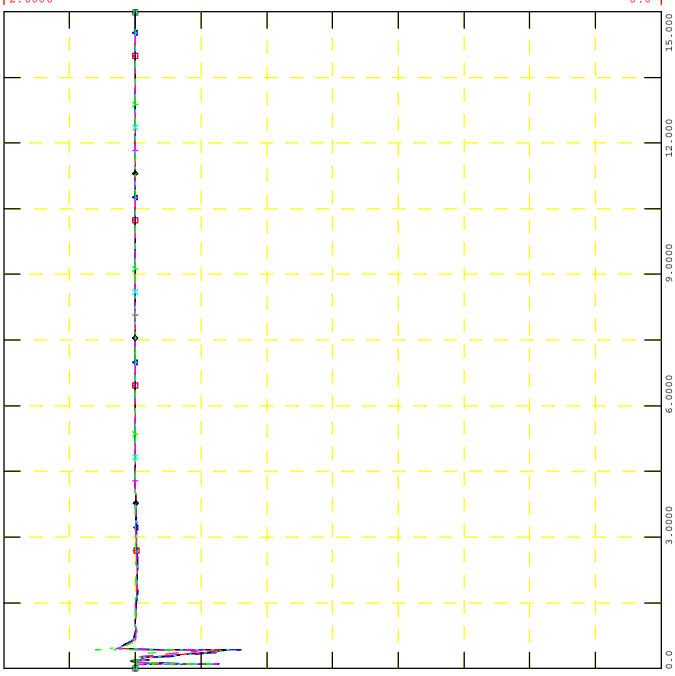
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

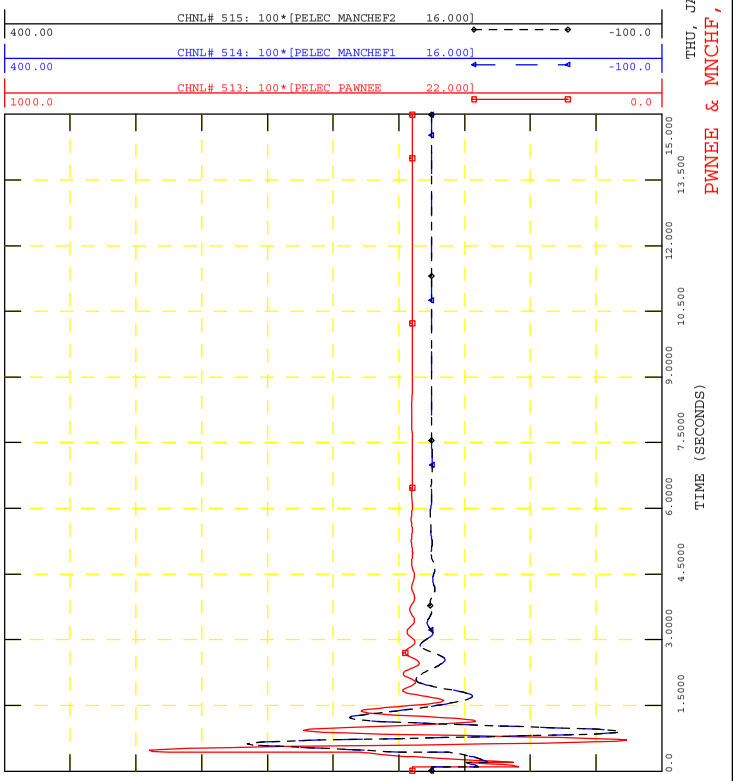
TIME (SECONDS)

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

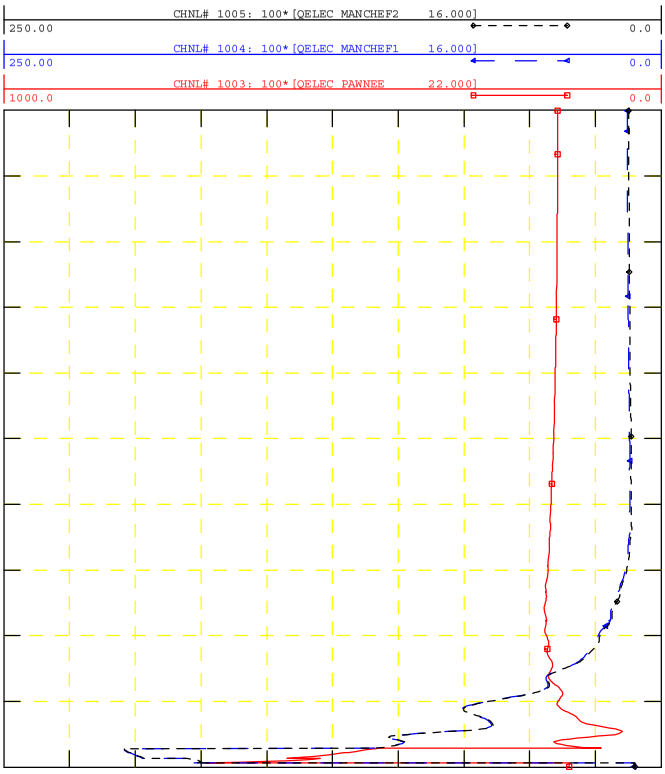
THU, JAN 19 2012 12:00




PWNEE & MNCHF, PELEC (MW)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

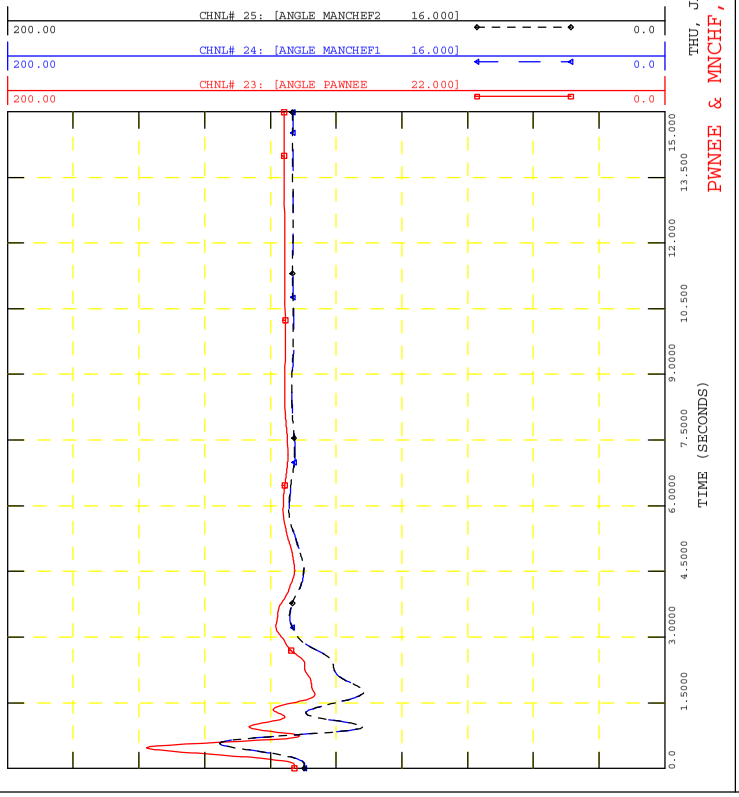
THU, JAN 19 2012 12:01




PWNEE & MNCHF,QELEC(MVAR)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

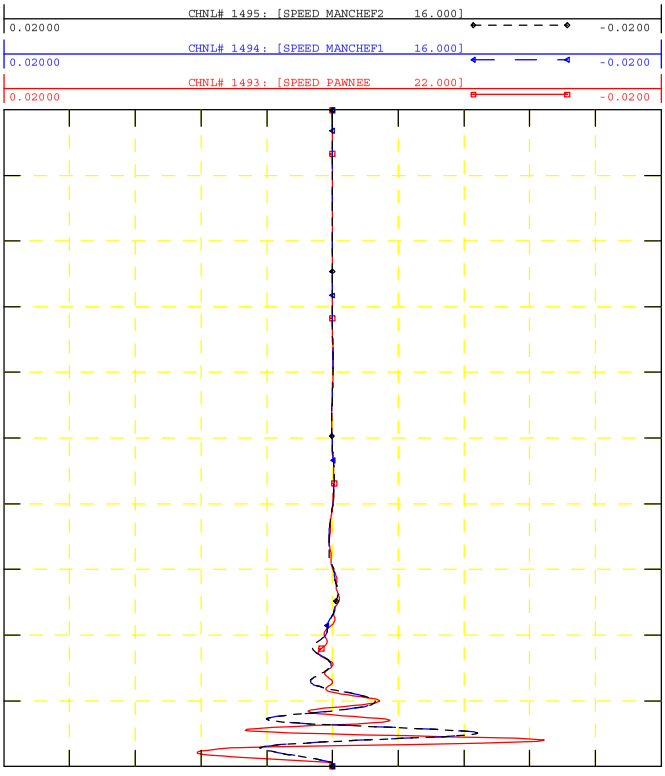
THU, JAN 19 2012 12:00




PWNEE & MNCHF, ANGLE(DEG)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC200: SLG W/ BF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, MISSILE SITE CLEARS IN 20~
FILE: ..\#out\NC200_NwTr_ON.out

THU, JAN 19 2012 12:00



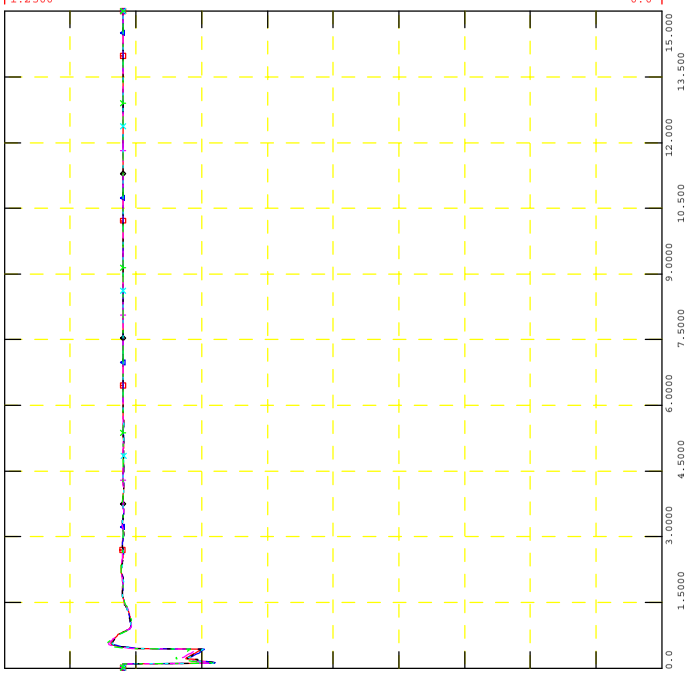

PWNEE & MNCHF, SPDDEV(PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
1.2500 0.0
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
1.2500 0.0
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
1.2500 0.0
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
1.2500 0.0
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
1.2500 0.0
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']
1.2500 0.0

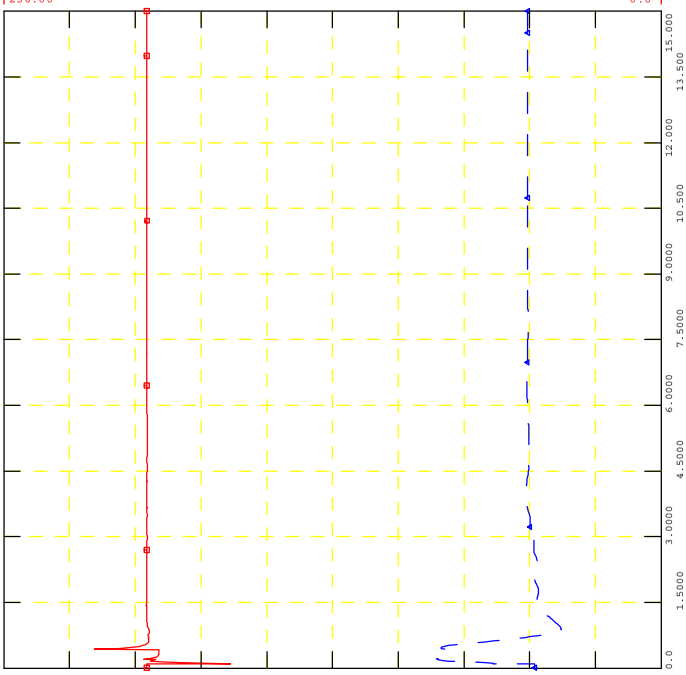



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
400.00 -100.0
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
250.00 0.0

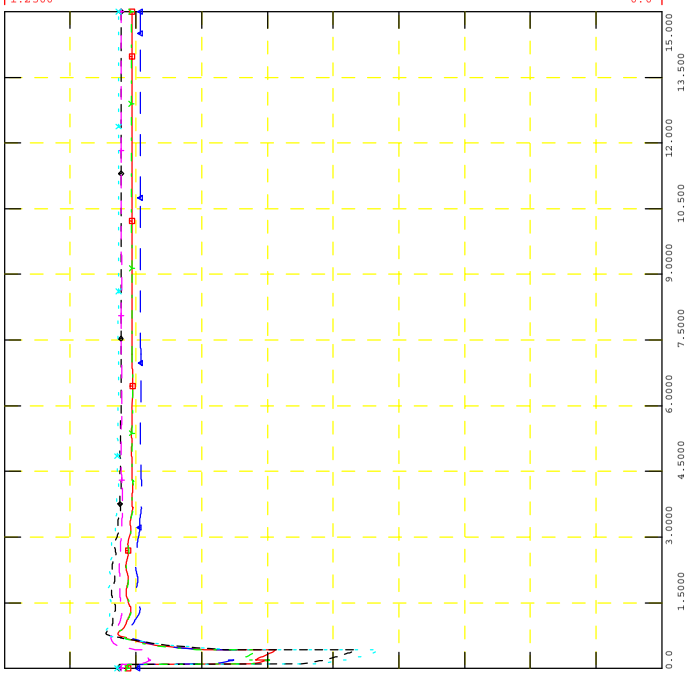



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
1.2500 0.0
CHNL# 2144: [VOLT PAWNEE 230.00]
1.2500 0.0
CHNL# 2302: [VOLT COMANCHE 345.00]
1.2500 0.0
CHNL# 2286: [VOLT PAWNEE 345.00]
1.2500 0.0
CHNL# 2287: [VOLT SMOKYHIL 345.00]
1.2500 0.0
CHNL# 2298: [VOLT MIS SITE 345.00]
1.2500 0.0

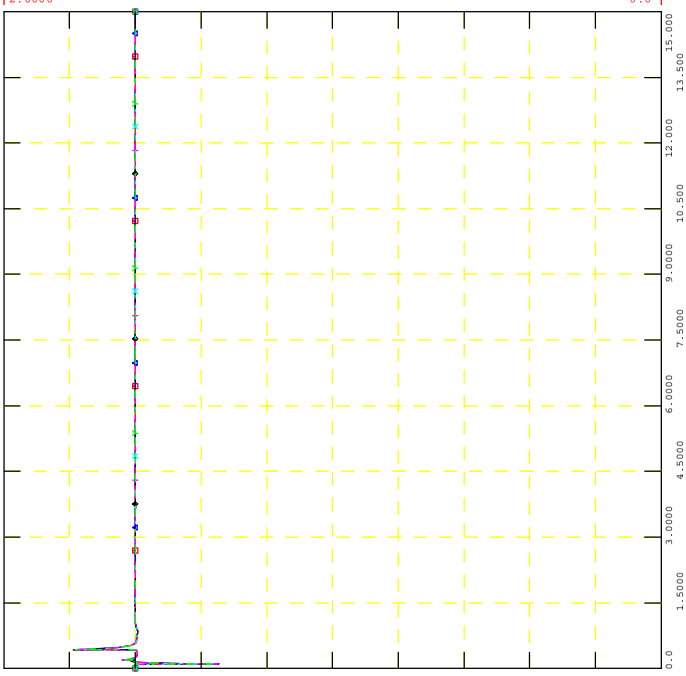



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01

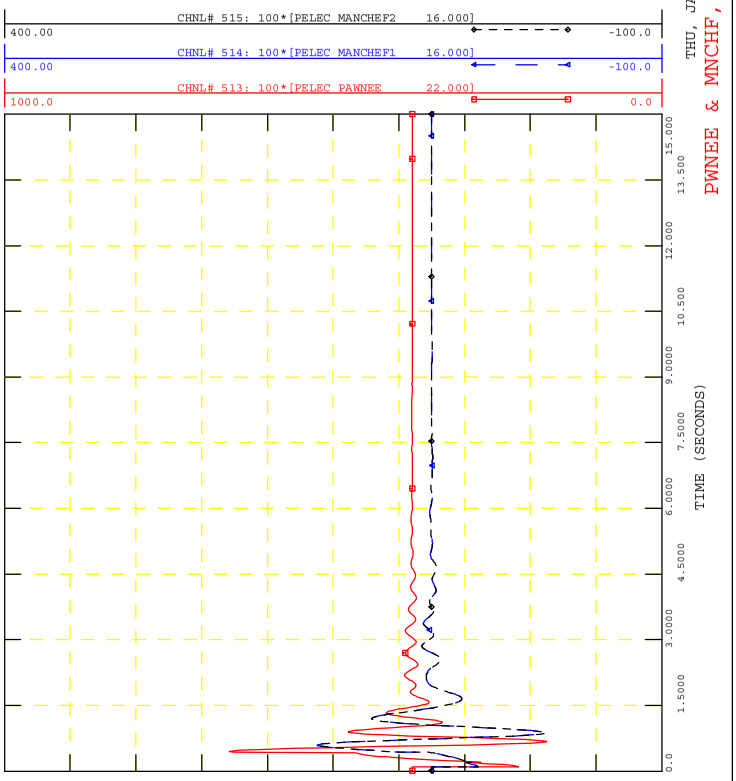
LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
2.0000 0.0
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
2.0000 0.0
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
2.0000 0.0
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
2.0000 0.0
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
2.0000 0.0
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']
2.0000 0.0



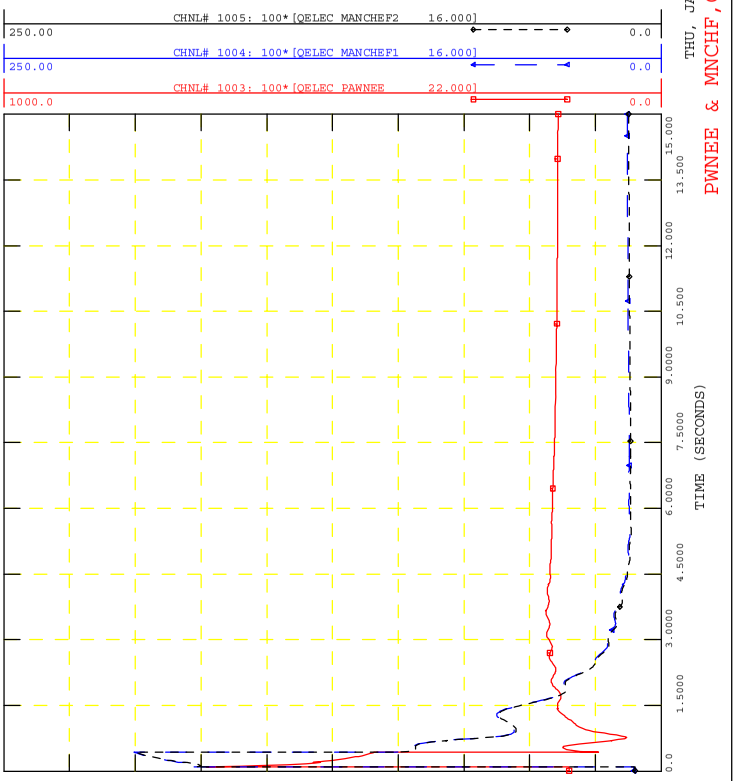
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01



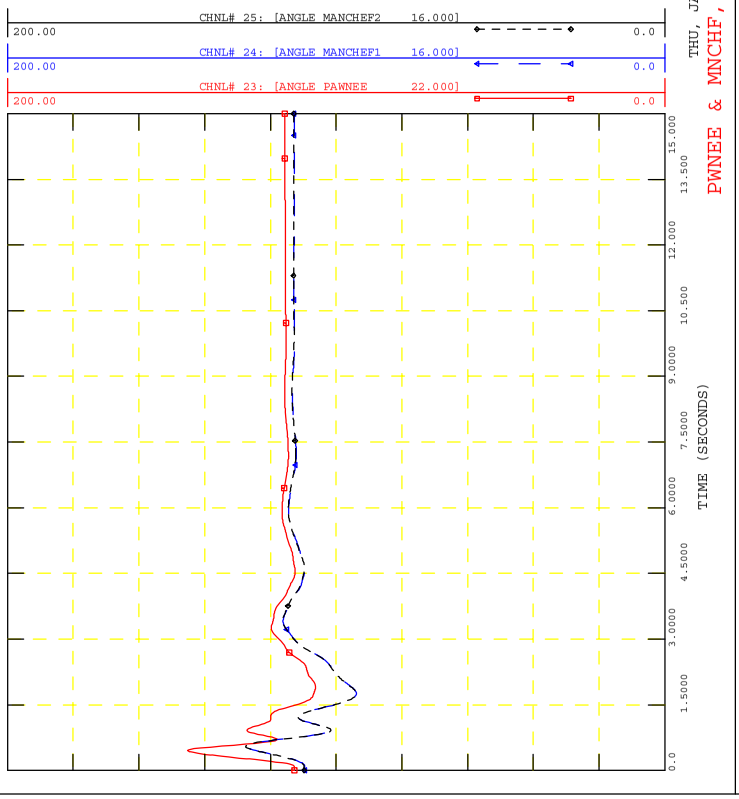

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01



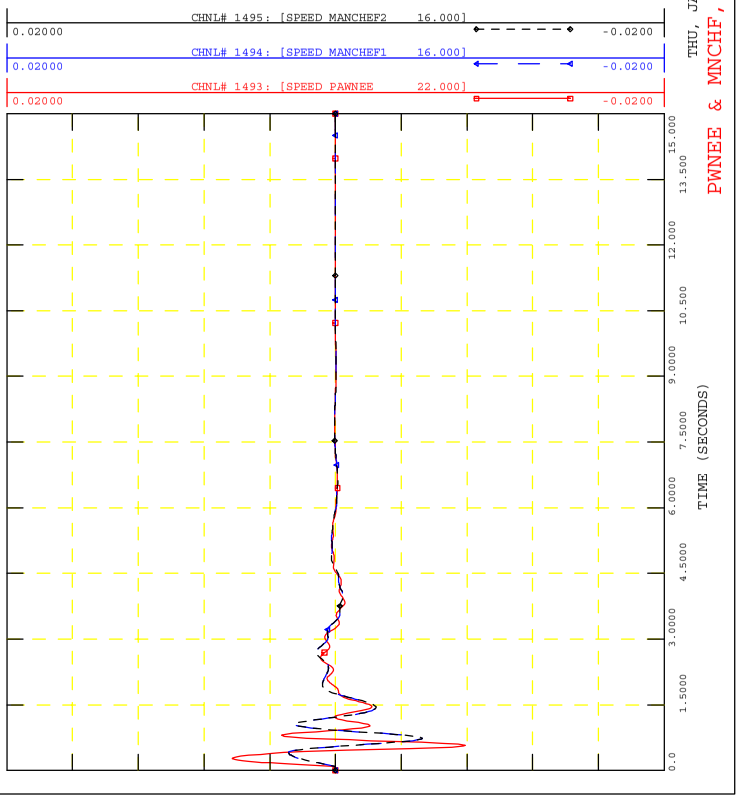

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01




WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC201: SLG W/ BF @ PAWNEE 230 KV ON MISSILE SITE 230 KV LIN
STORY CLEARS IN 6~, STORY CLEARS IN 20~
FILE: ..\#out\NC201_NwTr_ON.out

THU, JAN 19 2012 12:01



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_ON.out

THU, JAN 19 2012 12:01

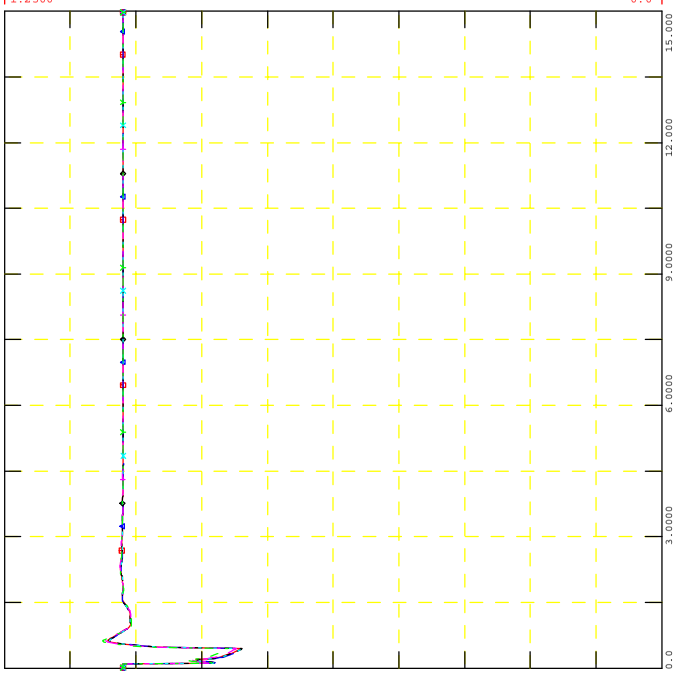
LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC300: SLG W/ PSF @ PAWNEE 230 KV ON STORY 230 KV LINE
STORY CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC300_NwTr_ON.out

THU, JAN 19 2012 12:01

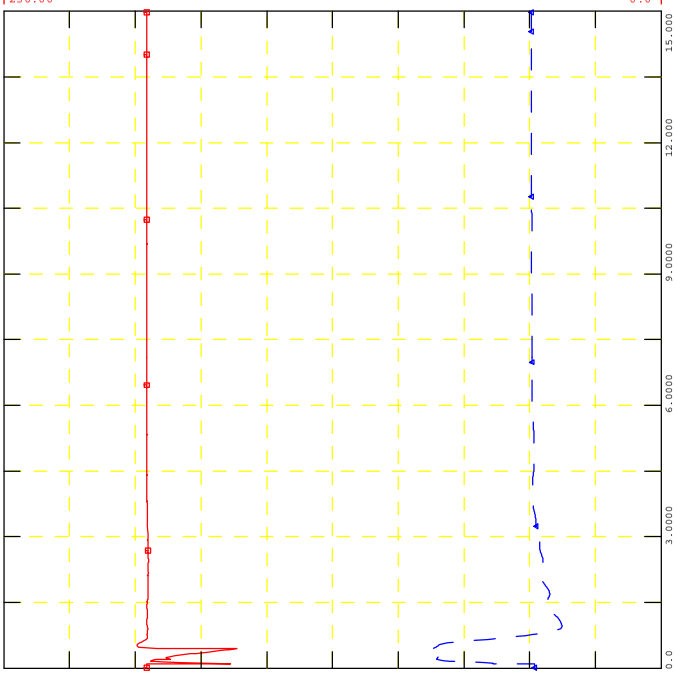
LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
250.00 / 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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THU, JAN 19 2012 12:01

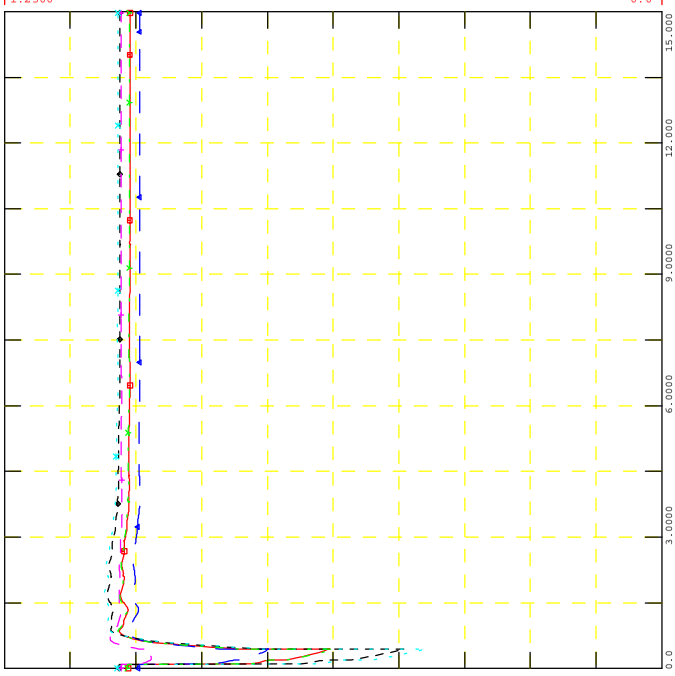
VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
CHNL# 2302: [VOLT COMANCHE 345.00]
CHNL# 2286: [VOLT PAWNEE 345.00]
CHNL# 2287: [VOLT SMOKYHIL 345.00]
CHNL# 2298: [VOLT MIS SITE 345.00]

1.2500 / 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



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2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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THU, JAN 19 2012 12:01

LIMON POWER (MW)

CHNL# 5693: 100*[POWR BUS 103125 MACH '1 ']
CHNL# 5636: 100*[POWR BUS 103068 MACH '1 ']
CHNL# 5608: 100*[POWR BUS 103040 MACH '1 ']
CHNL# 5591: 100*[POWR BUS 103023 MACH '1 ']
CHNL# 5575: 100*[POWR BUS 103007 MACH '1 ']
CHNL# 5569: 100*[POWR BUS 103001 MACH '1 ']

2.0000 / 0.0

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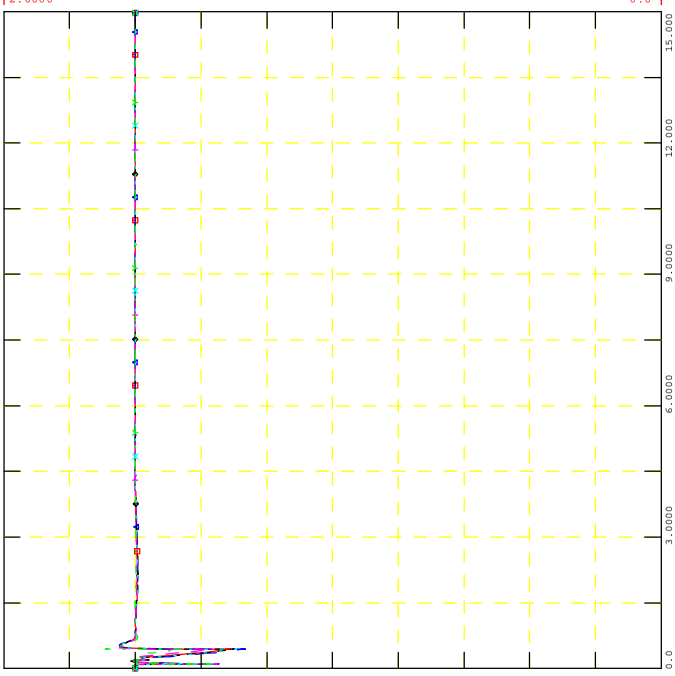
TIME (SECONDS)



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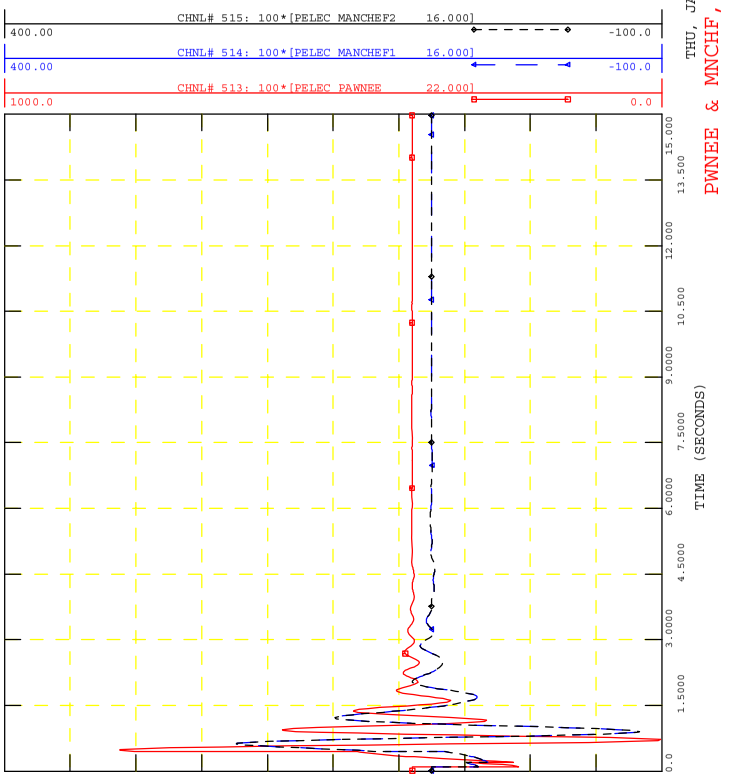
THU, JAN 19 2012 12:01

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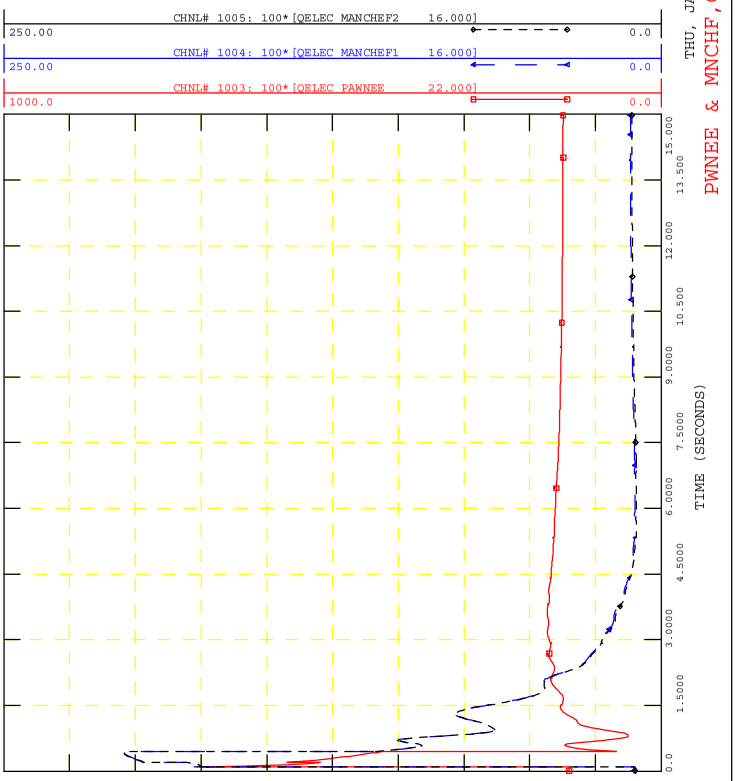


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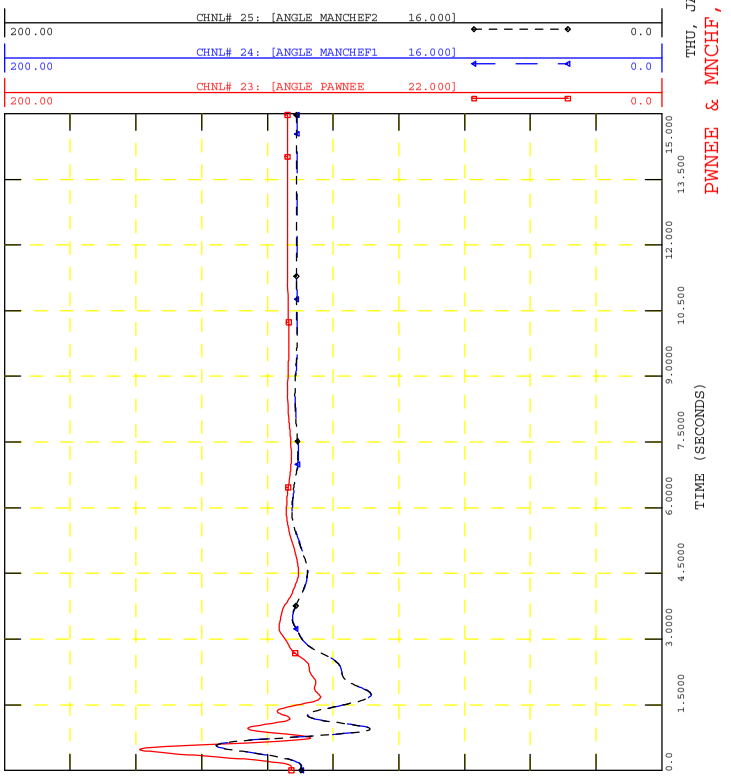


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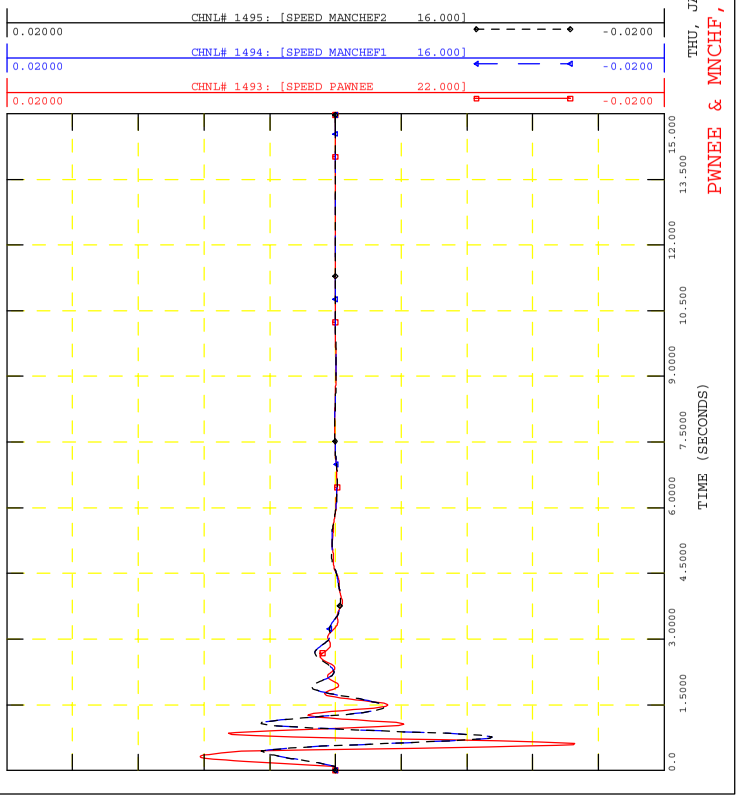


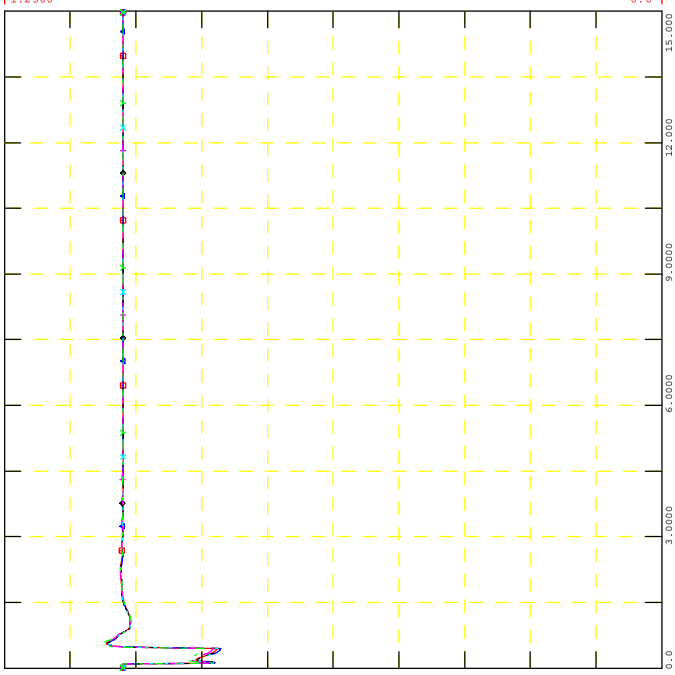
WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC301: SLG W/ PSF @ PAWNEE 230 KV ON FT LUPTON 230 KV LINE
FT LUPTON CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC301_NwTr_ON.out

THU, JAN 19 2012 12:01

LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
CHNL# 6355: [ETRM BUS 103023 MACH '1 ']
CHNL# 6339: [ETRM BUS 103007 MACH '1 ']
CHNL# 6333: [ETRM BUS 103001 MACH '1 ']

1.2500 / 0.0

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LIMON 345KV FLOWS-MW,MVAR

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400.00 / -100.0

CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']
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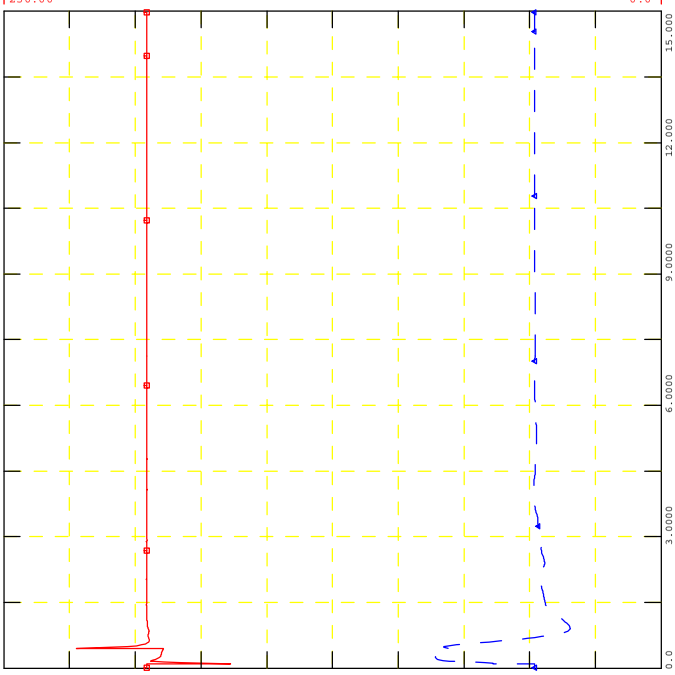


WESTERN ELECTRICITY COORDINATING COUNCIL
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THU, JAN 19 2012 12:01

VOLTAGE (PU)

CHNL# 2297: [VOLT MISSILE SITE230.00]
CHNL# 2144: [VOLT PAWNEE 230.00]
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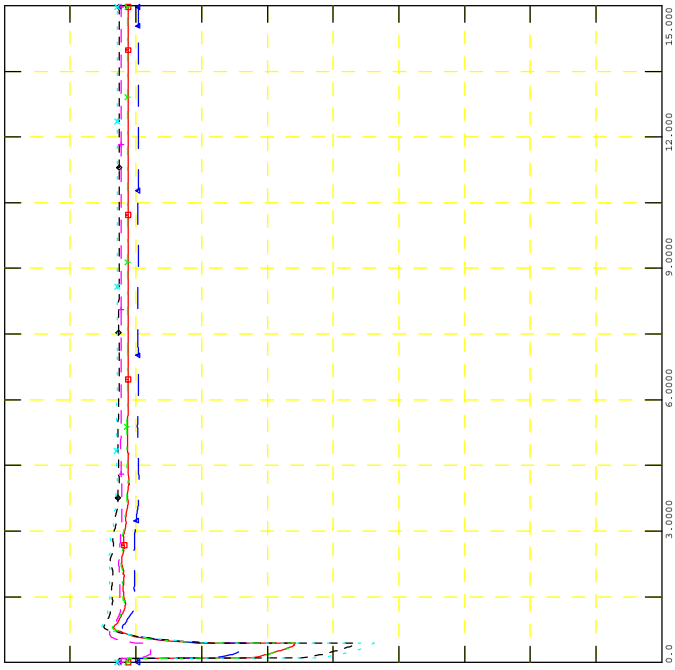
1.2500 / 0.0




WESTERN ELECTRICITY COORDINATING COUNCIL
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LIMON POWER (MW)

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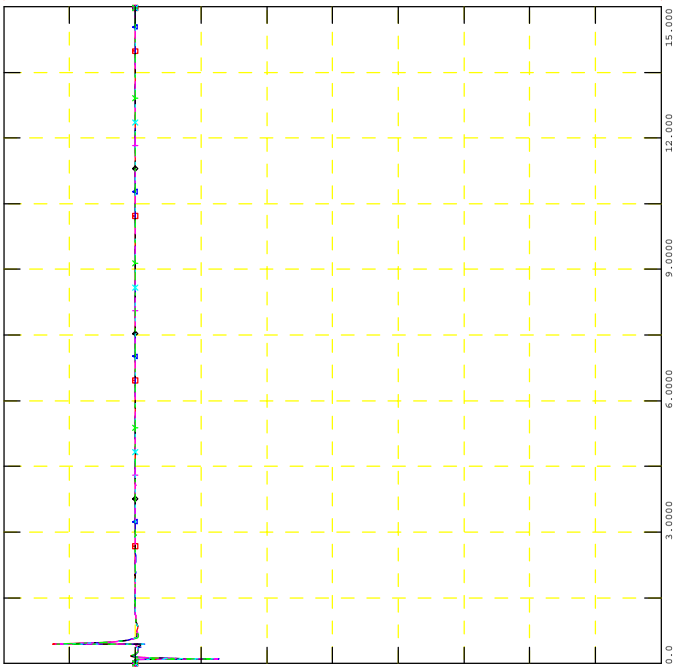
2.0000 / 0.0



WESTERN ELECTRICITY COORDINATING COUNCIL
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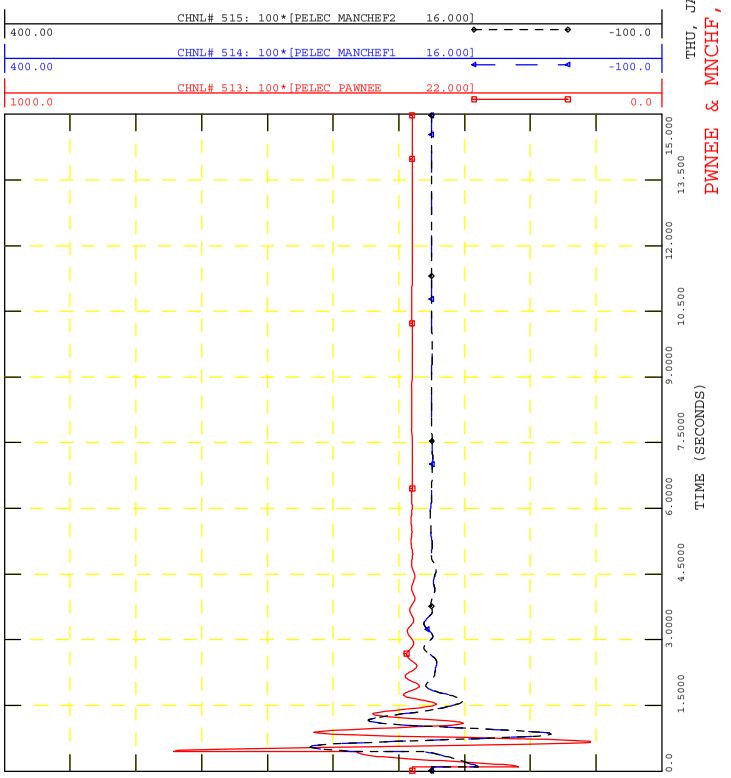


WESTERN ELECTRICITY COORDINATING COUNCIL
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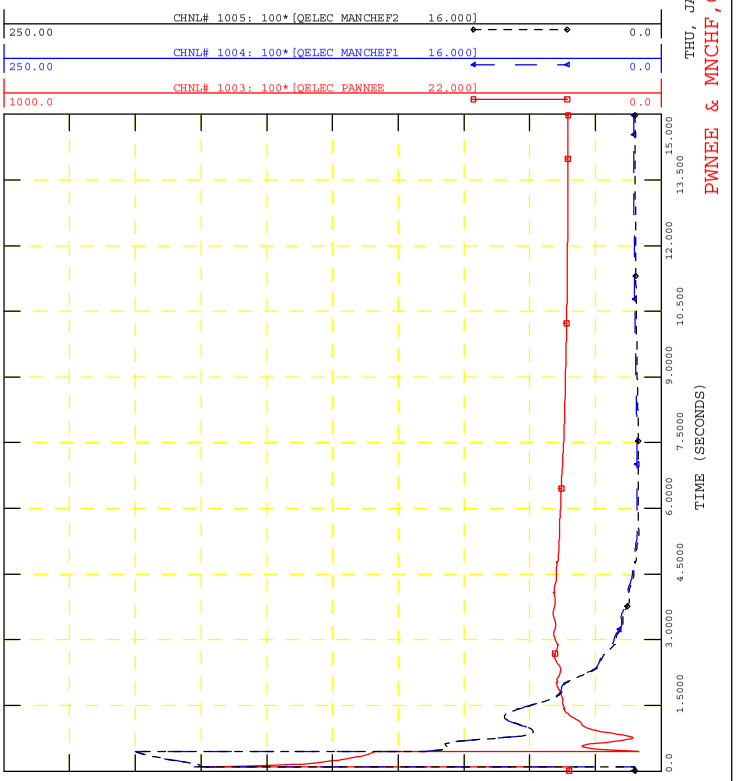


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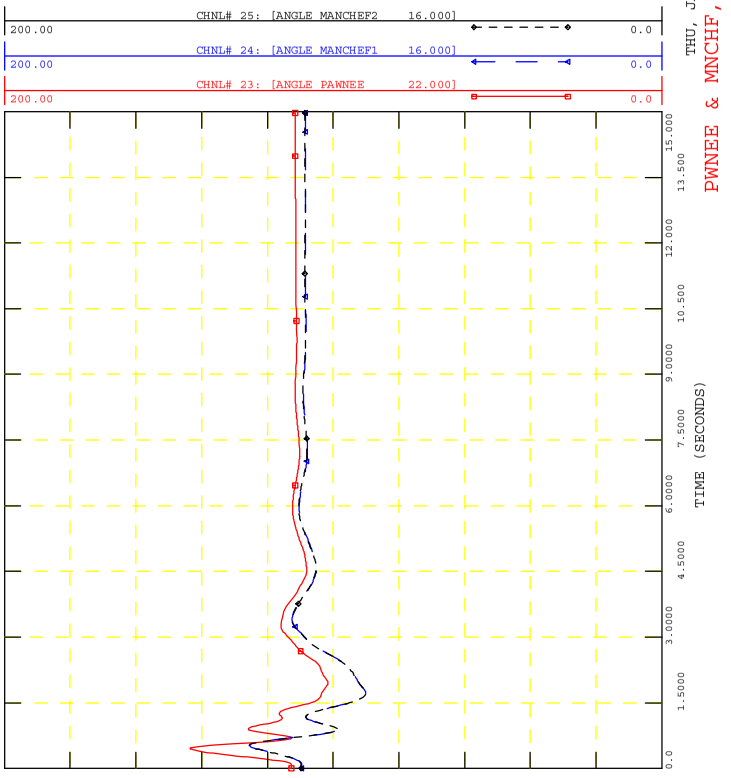


WESTERN ELECTRICITY COORDINATING COUNCIL
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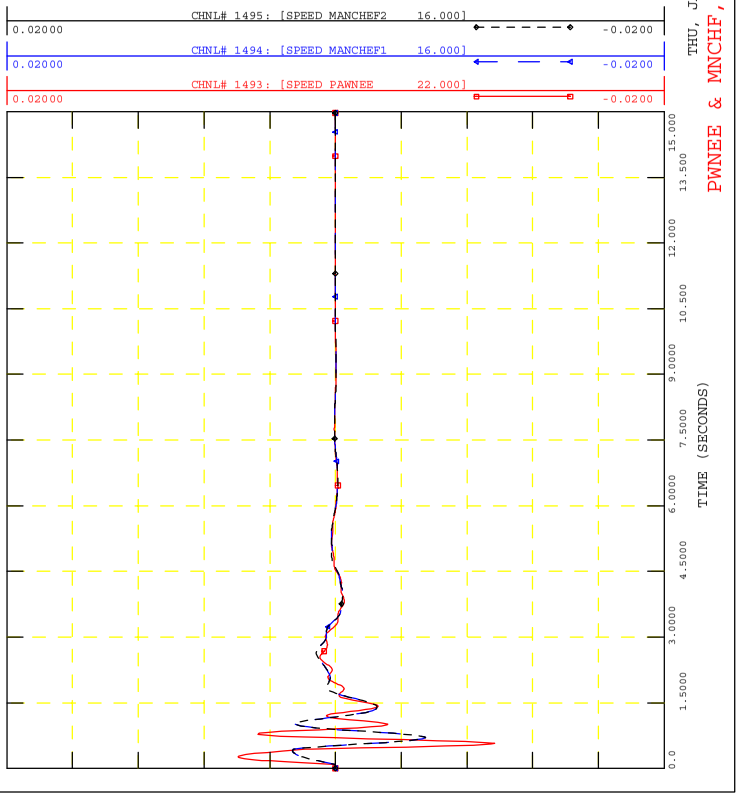

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
NC302: SLG W/ PSF @ PAWNEE 230 KV ON BRICK CENTER 230 KV LI
BRICK CENTER CLEARS IN 6~, PAWNEE CLEARS IN 21~
FILE: ..\#out\NC302_NwTr_ON.out

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LIMON ETERM (PU)

CHNL# 6457: [ETRM BUS 103125 MACH '1 ']
CHNL# 6400: [ETRM BUS 103068 MACH '1 ']
CHNL# 6372: [ETRM BUS 103040 MACH '1 ']
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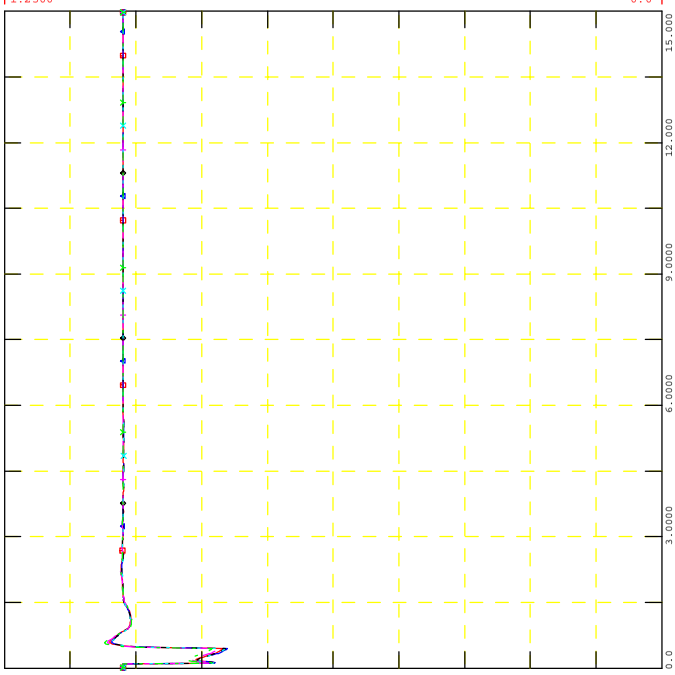
1.2500 / 0.0

0.0 1.5000 3.0000 4.5000 6.0000 7.5000 9.0000 10.500 12.000 13.500 15.000

TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
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LIMON 345KV FLOWS-MW,MVAR

CHNL# 5000: [VARS 105030 TO 800973 CKT '1 ']
CHNL# 4999: [POWR 105030 TO 800973 CKT '1 ']

400.00 / -100.0
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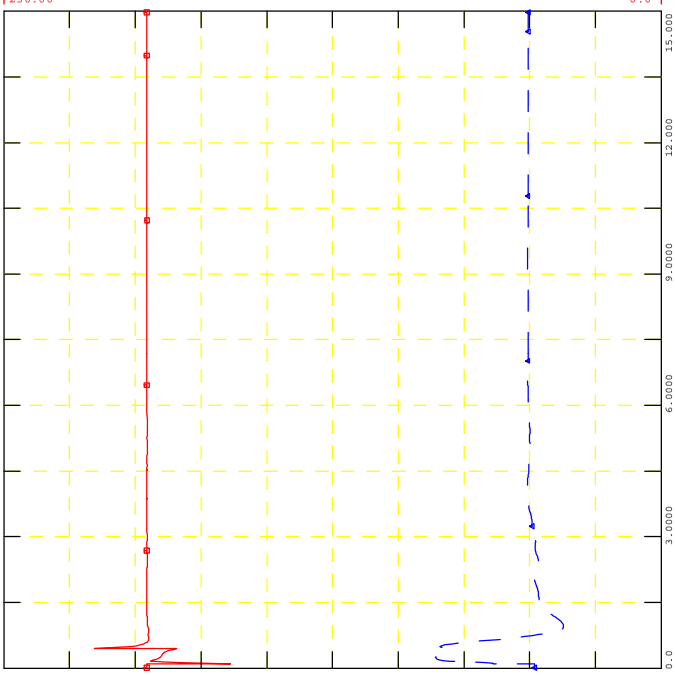
TIME (SECONDS)



WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
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THU, JAN 19 2012 12:01

VOLTAGE (PU)

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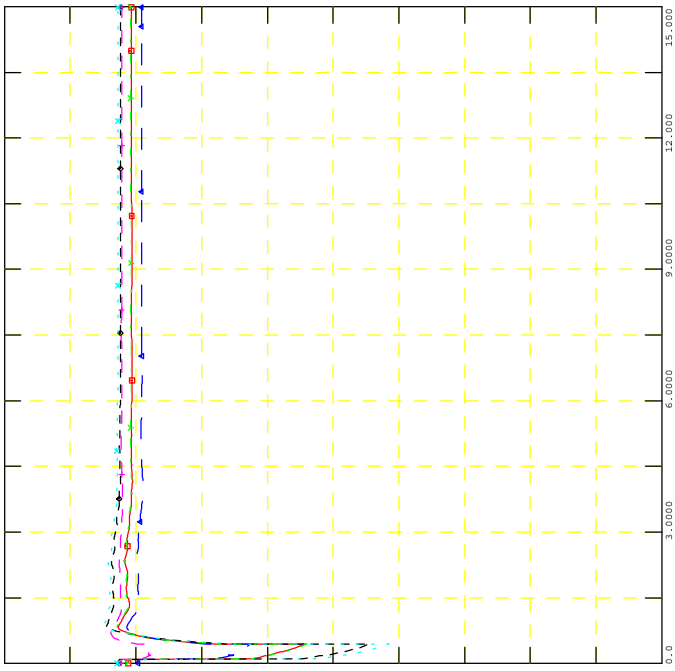

WESTERN ELECTRICITY COORDINATING COUNCIL
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LIMON POWER (MW)

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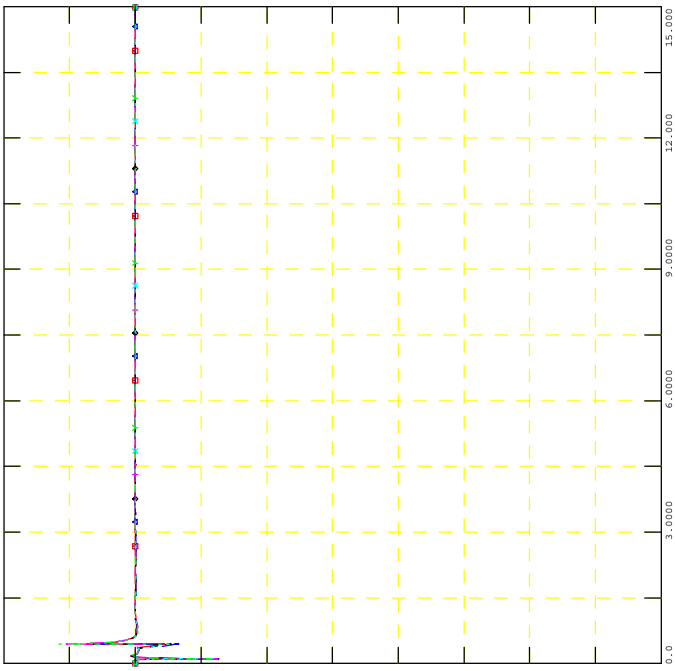
TIME (SECONDS)



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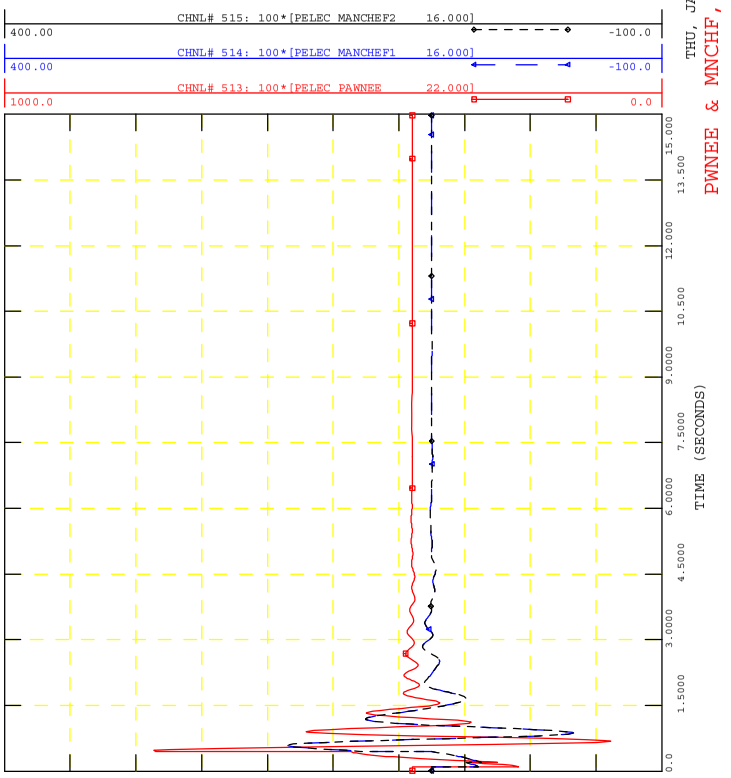


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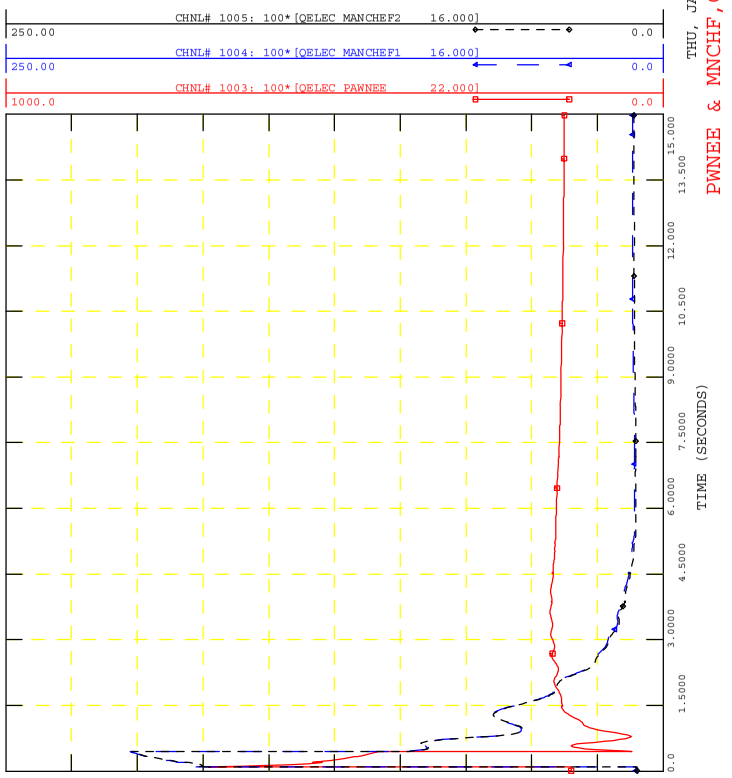


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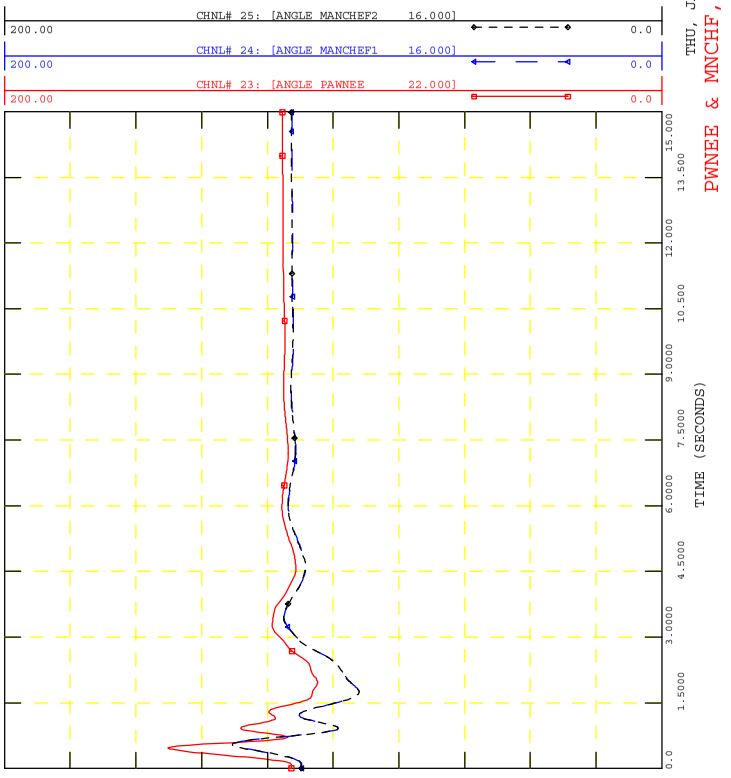


WESTERN ELECTRICITY COORDINATING COUNCIL
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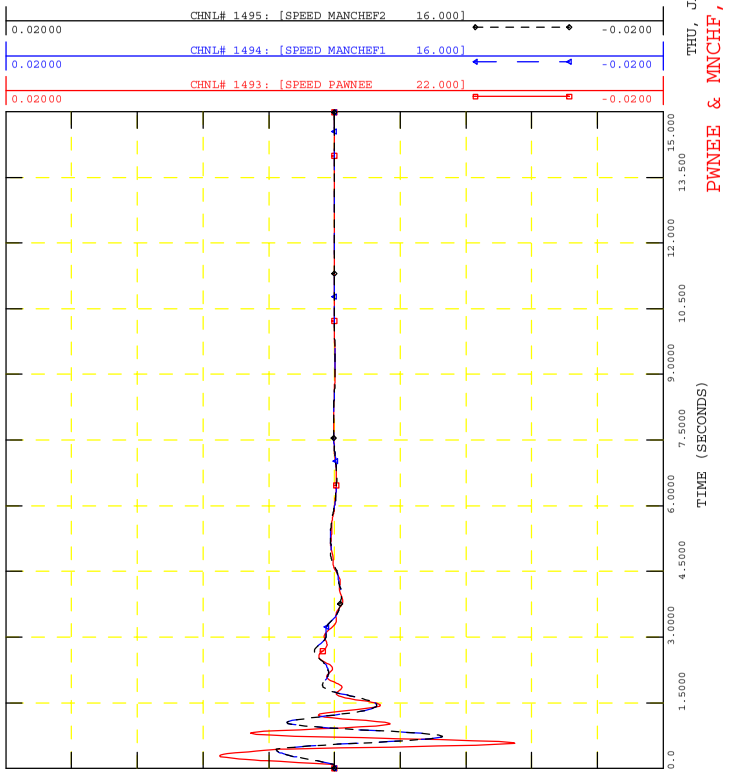
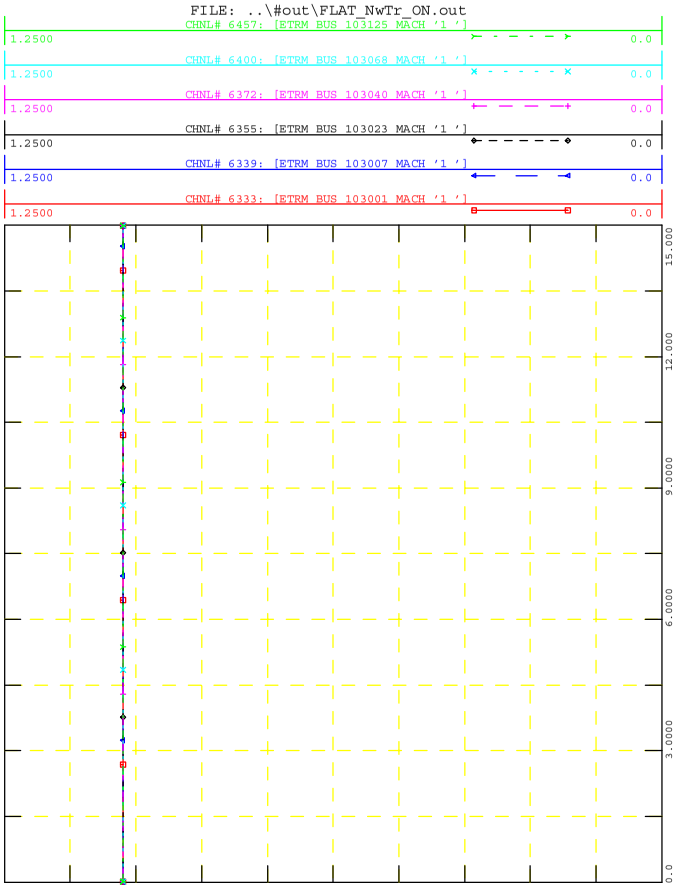


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_ON.out

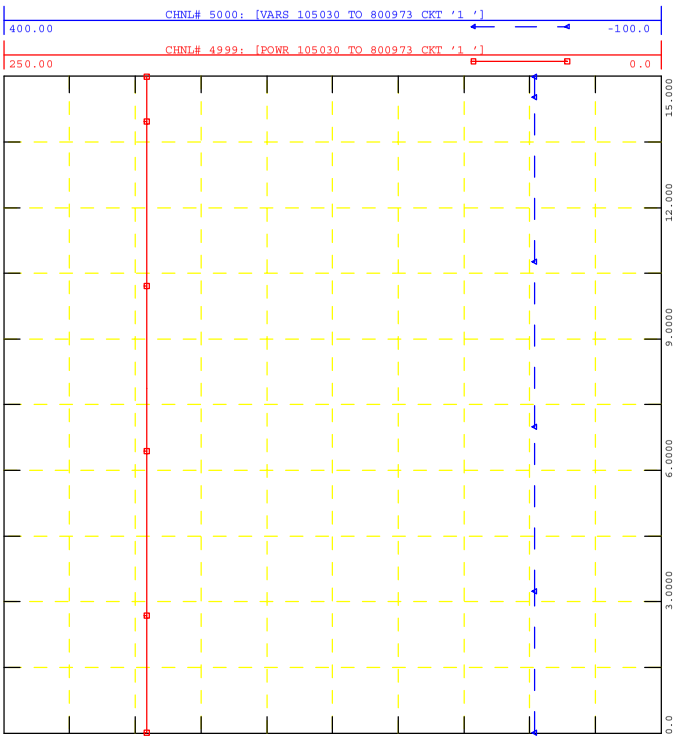



THU, JAN 19 2012 12:01

LIMON ETERM (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_ON.out

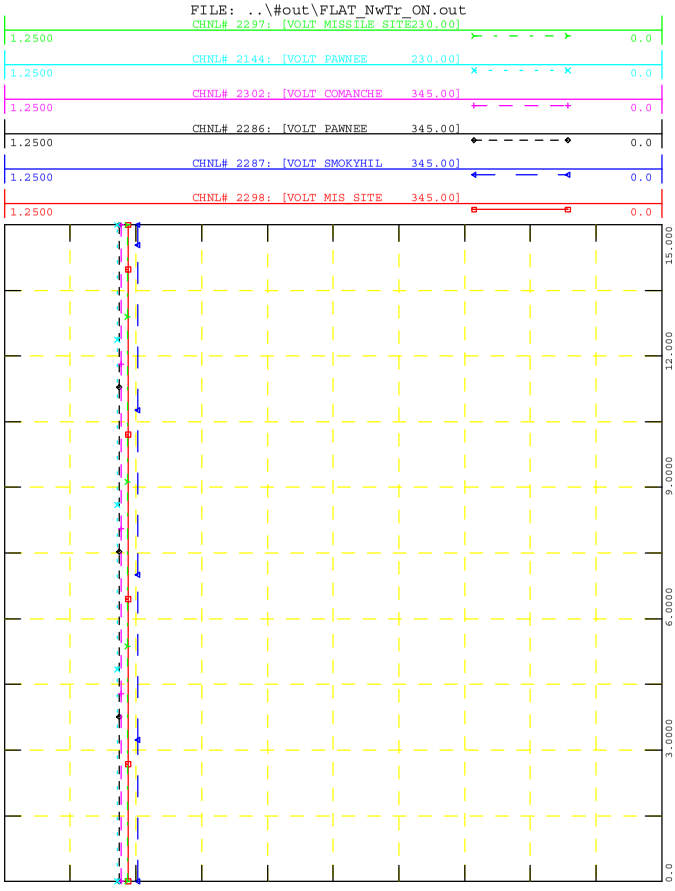



THU, JAN 19 2012 12:01

LIMON 345KV FLOWS-MW,MVAR

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
--

FILE: ..\#out\FLAT_NwTr_ON.out

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VOLTAGE (PU)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
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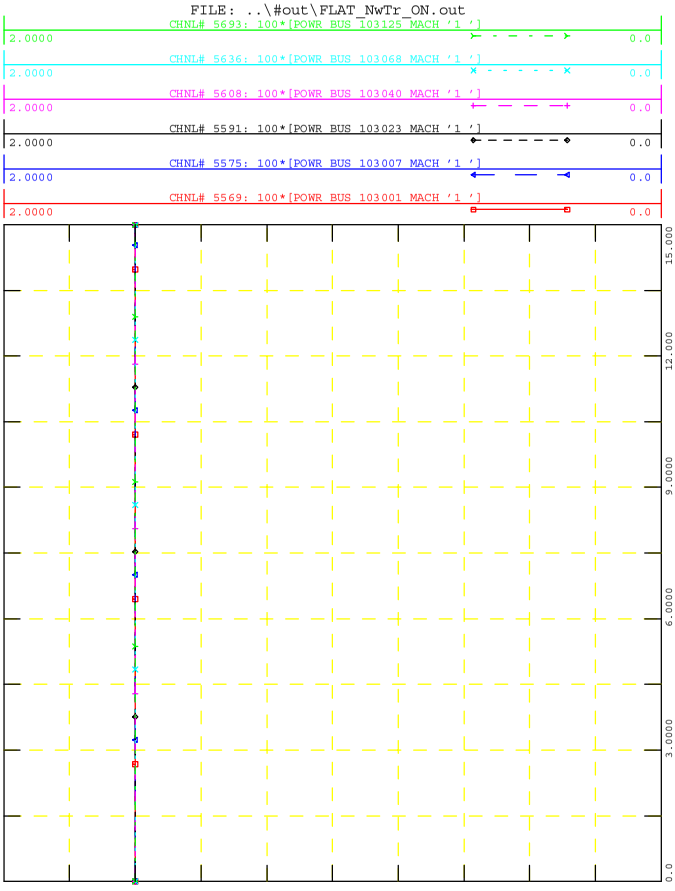


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LIMON POWER (MW)

WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
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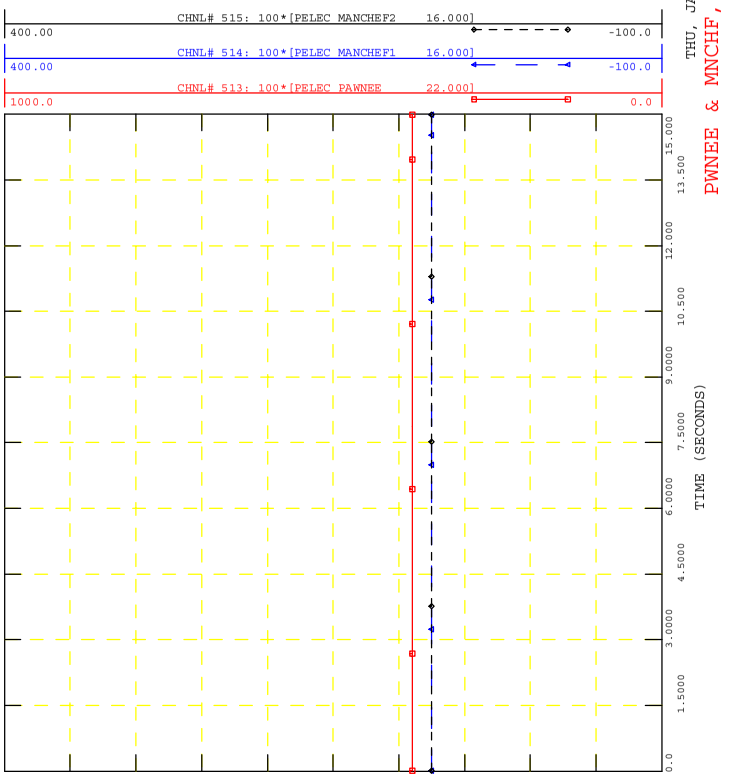


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
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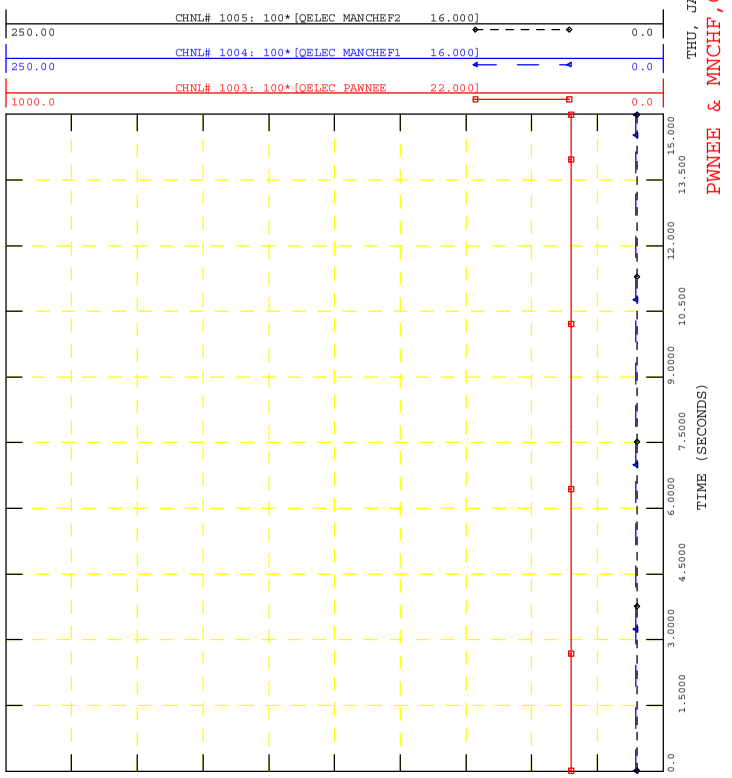


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
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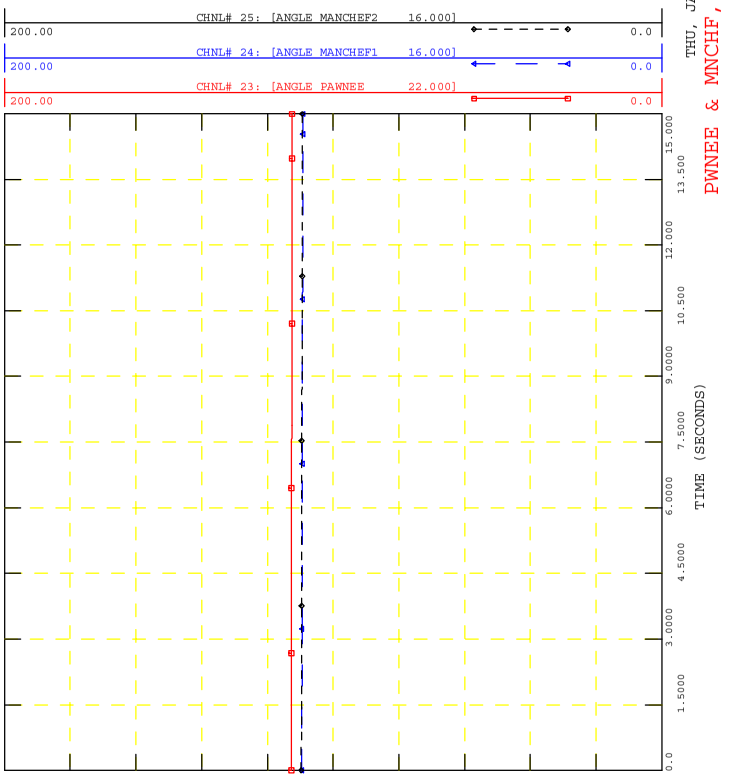


WESTERN ELECTRICITY COORDINATING COUNCIL
2010HSBUDGET - PEETZ WF EXPANSION GI-2006-2
FLAT: FLAT RUN, NO FAULT
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