



**INCORPORACIÓN RECURSO SOLAR
EN DIFERENTES ESCALAS AL SIN
ANEXO 1.1**

**Evento de Pérdida de Generación de
350 MW de Porce III**

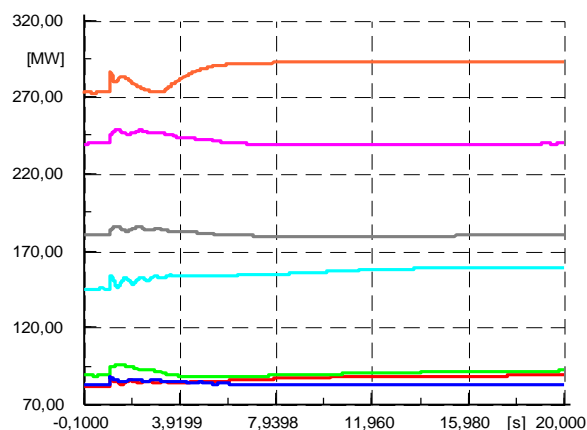
Orden de las gráficas

Gráfica	Variable de Control	Descripción
A11_Potencia Pg	P [MW]	Potencia activa generada por principales máquinas del SIN
A12_Potencia Qg	Q [MVar]	Potencia reactiva generada por principales máquinas del SIN
A13_Tensiones SIN	V [p.u.]	Tensiones de subestaciones del SIN
A14_Ángulos SIN	σ	Ángulos de subestaciones del SIN
A15_Potencia Pl	P [MW]	Potencia activa a través de líneas de transmisión
A16_Potencia Ql	Q [MVar]	Potencia reactiva a través de líneas de transmisión
A17_Frecuencia SIN	Hz	Frecuencia del Sistema

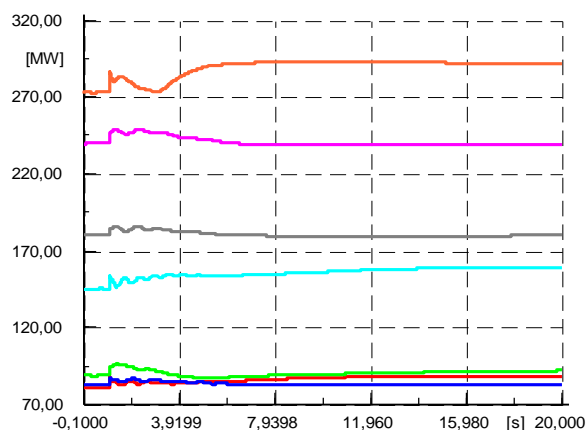
Estructuración de las simulaciones



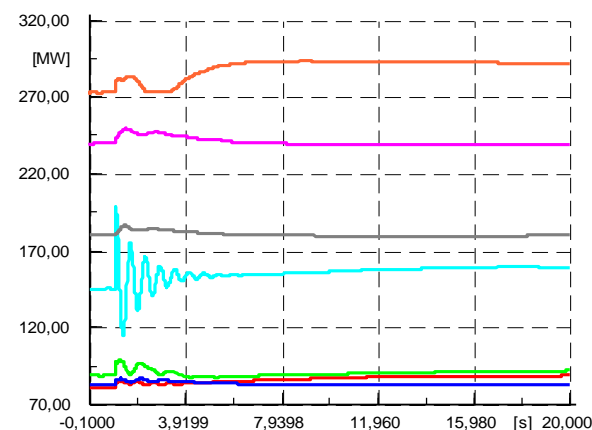
- 1: Red Sin Proyecto (RSP) – Despacho Hidráulico (DH) – Falla en Porce III
- 2: Red Con Proyecto (RCP) – Despacho Hidráulico (DH) – Falla en Porce III
- 3: Red Con Proyecto (RCP) – Despacho Hidráulico (DH) – Falla en Sistema PV
- 4: Red Sin Proyecto (RSP) – Despacho Térmico (DT) – Falla en Porce III
- 5: Red Con Proyecto (RCP) – Despacho Térmico (DT) – Falla en Porce III
- 6: Red Con Proyecto (RCP) – Despacho Térmico (DT) – Falla en Sistema PV



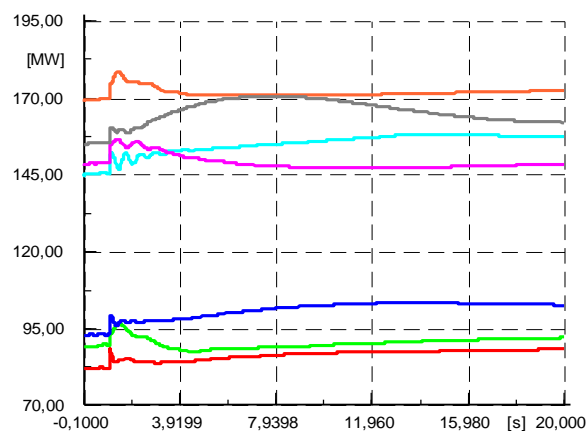
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 Tebsa Gas 3: Active Power
 Urra 1: Active Power
 Guajira 2: Active Power
 Sogamoso 1: Active Power
 Guavio 1: Active Power
 Betania 1: Active Power



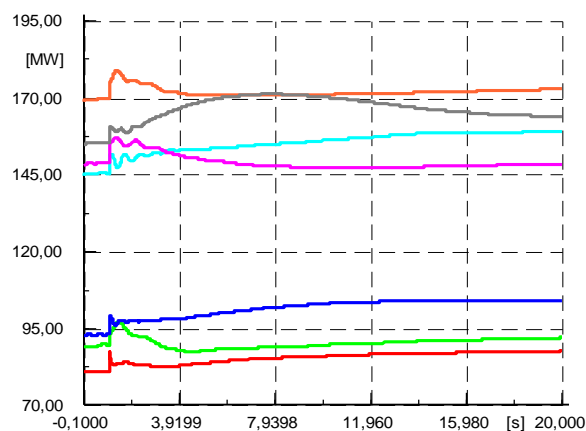
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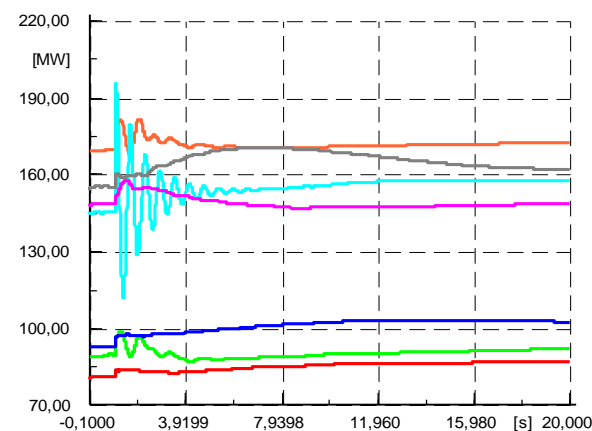
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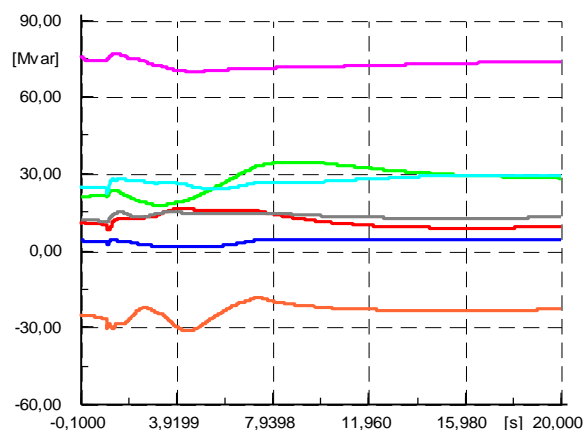
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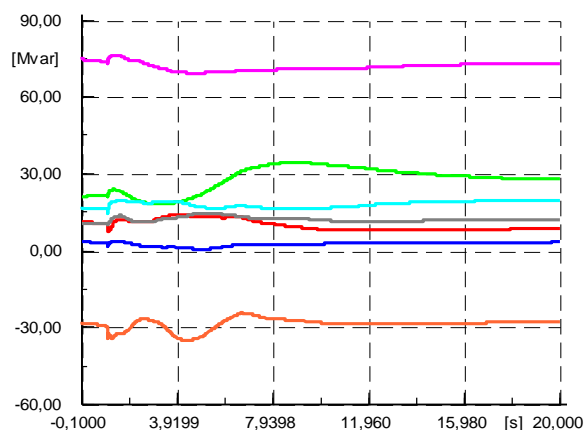
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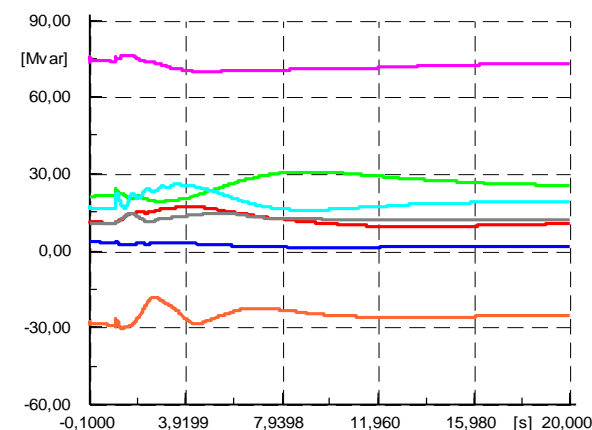
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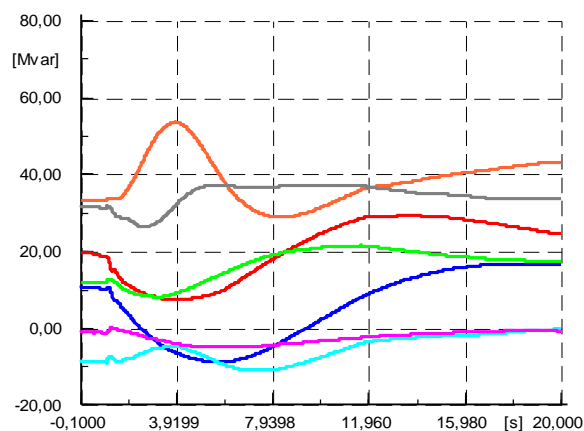
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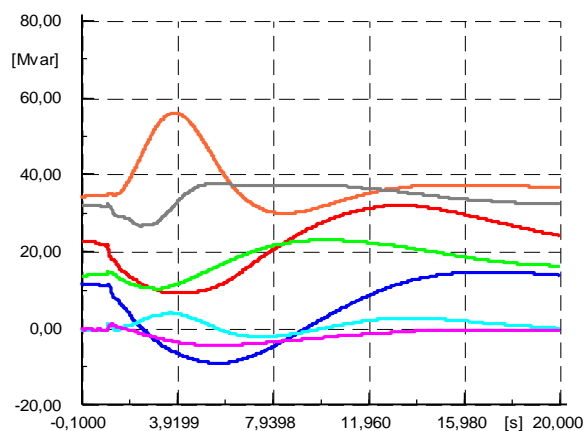
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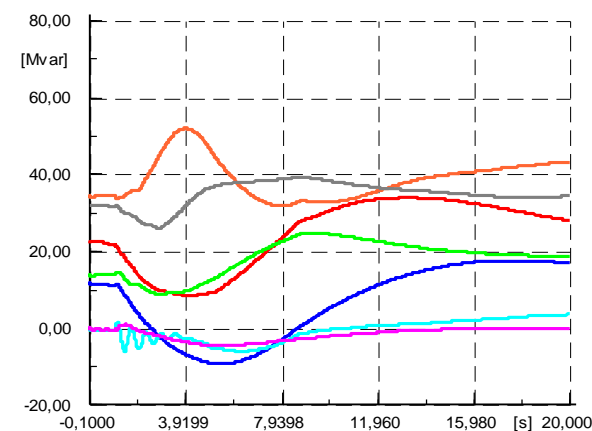
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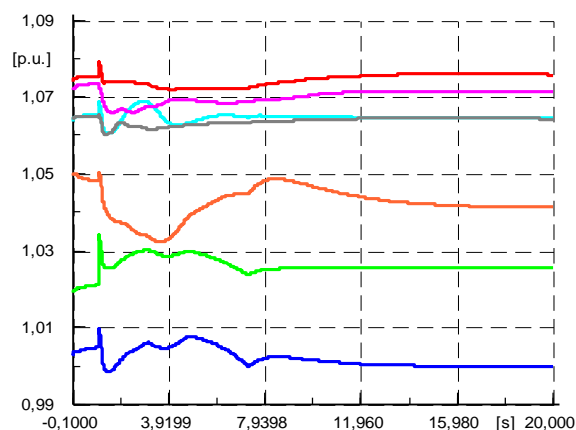
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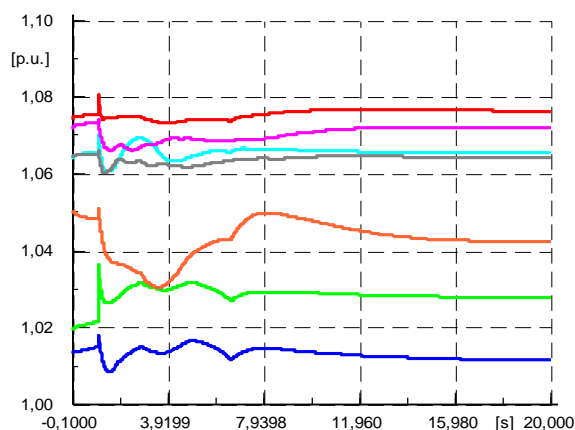
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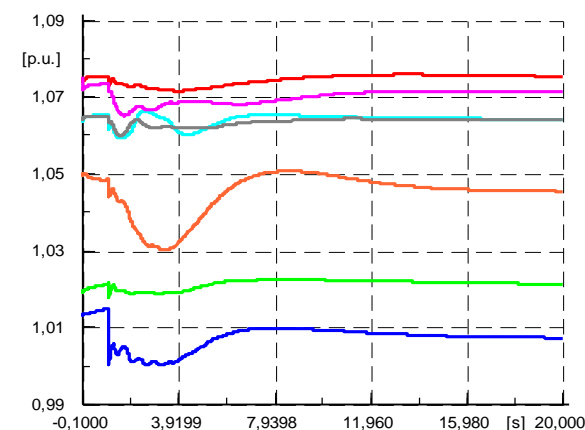
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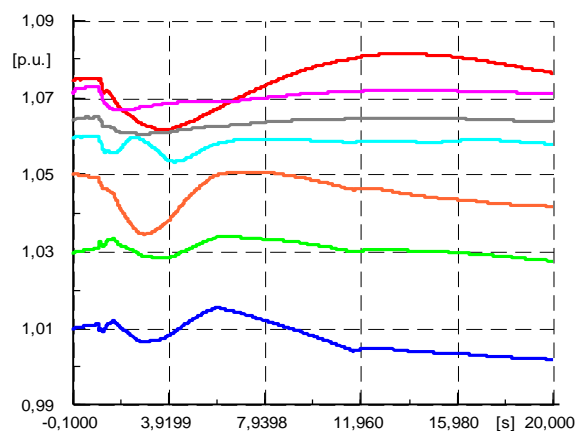
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 — Porce III 500kV: Voltage, Magnitude
 — Valledupar 220kV: Voltage, Magnitude
 — Tebsa 220kV: Voltage, Magnitude
 — Sogamoso 220kV: Voltage, Magnitude
 — Guavio 220kV: Voltage, Magnitude
 — Betania 220kV: Voltage, Magnitude



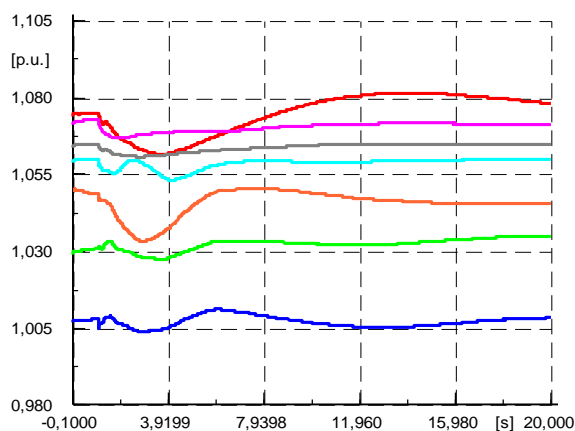
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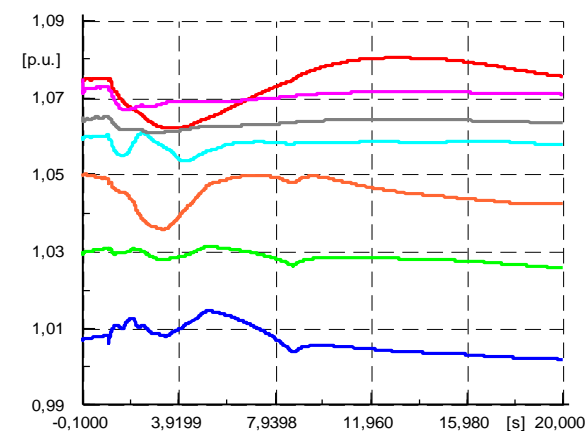
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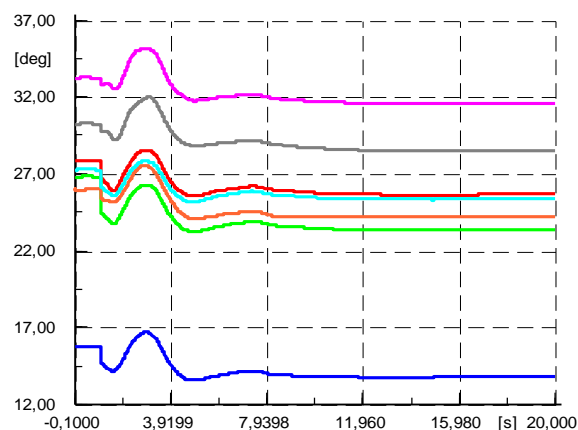
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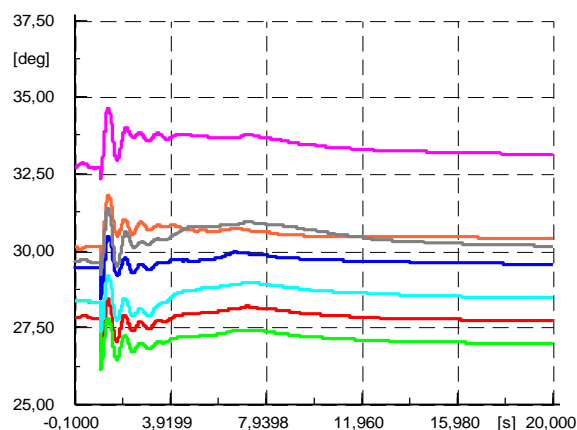
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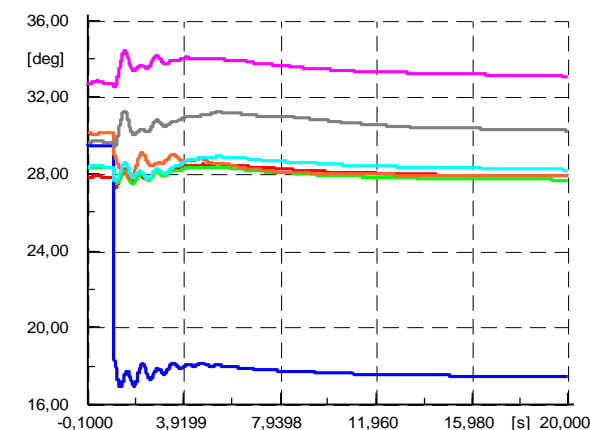
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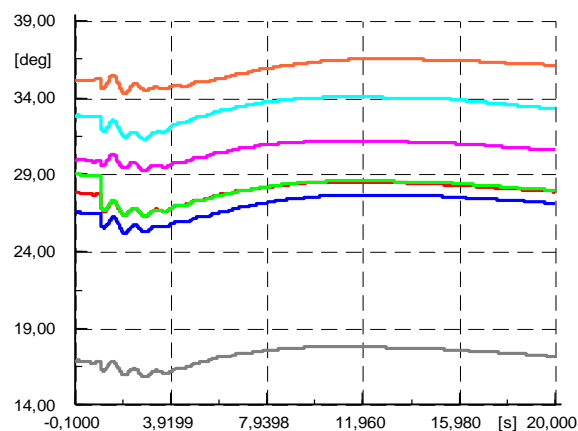
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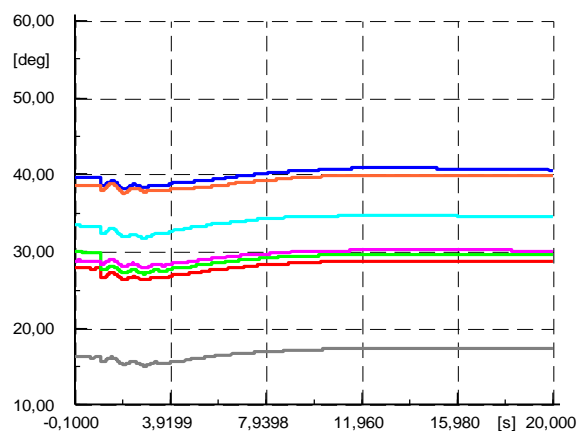
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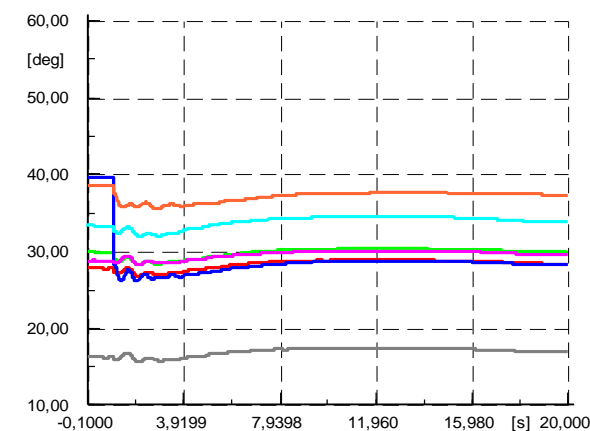
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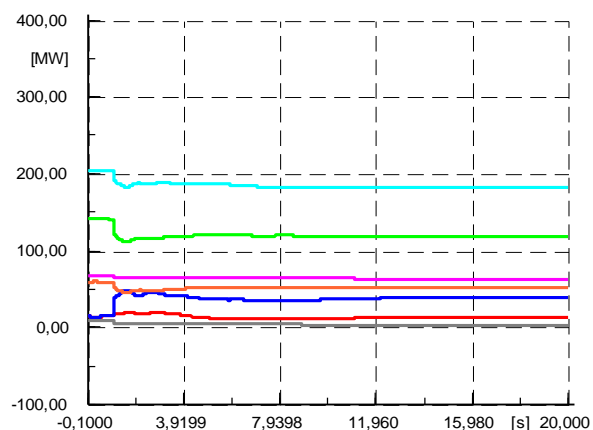
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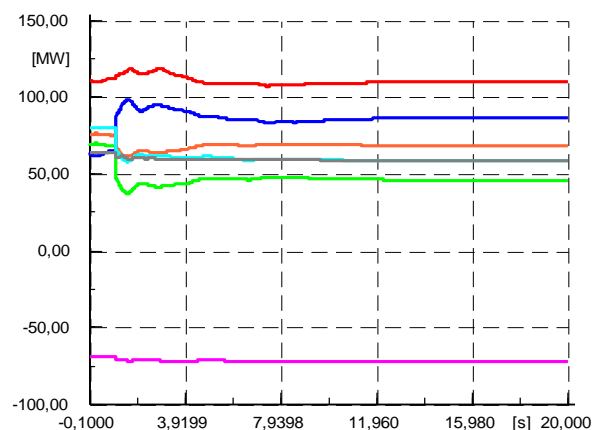
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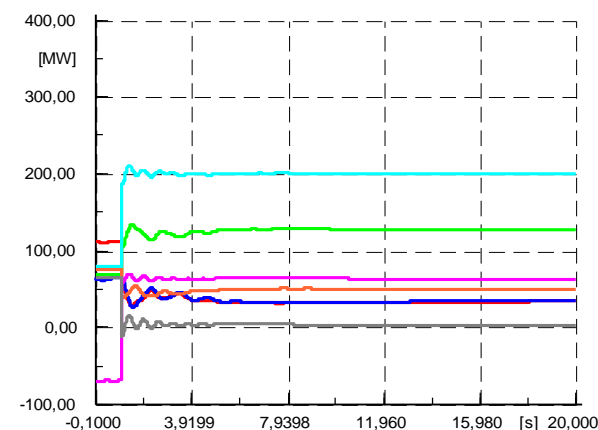
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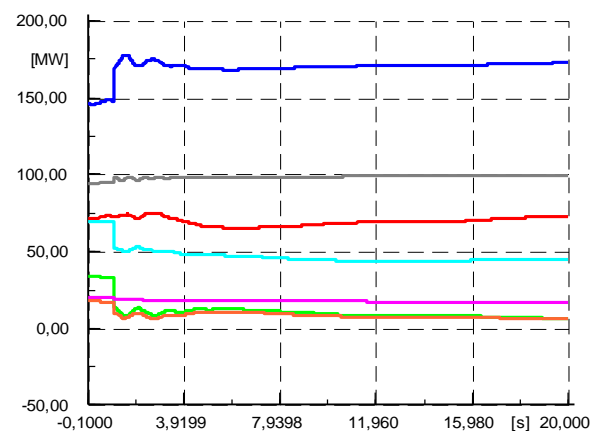
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 Bolivar-El Copey_500kV_1: Active Power/Terminal j
 El Copey-Chinú_500kV_1: Active Power/Terminal j
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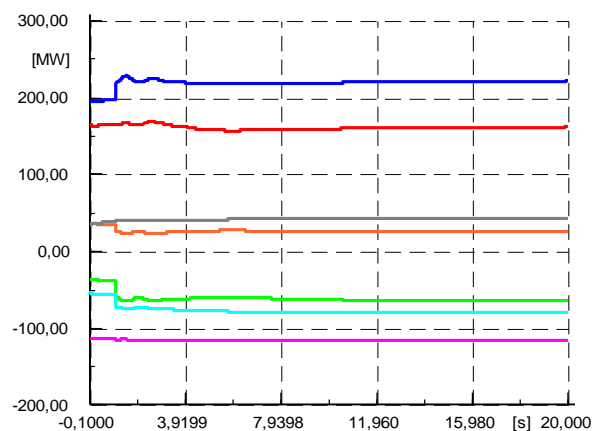
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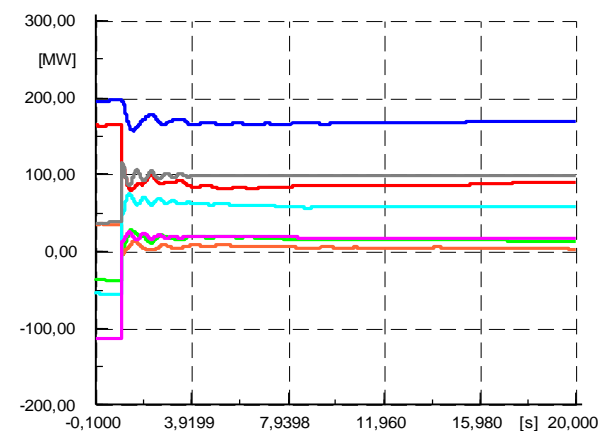
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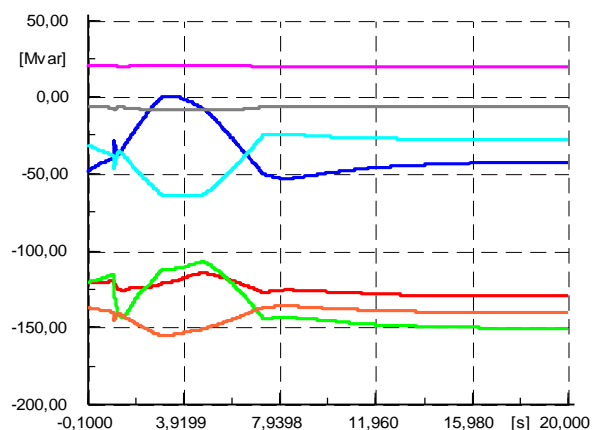
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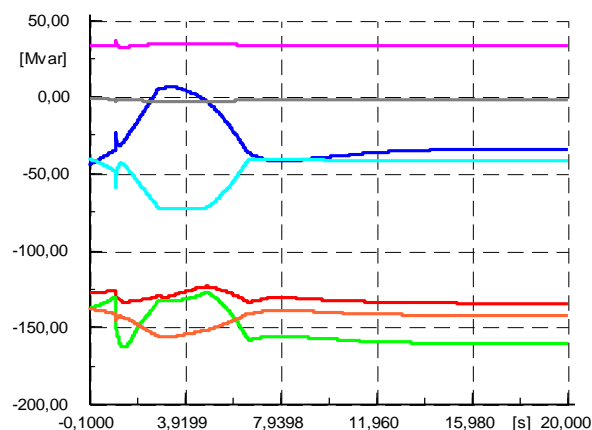
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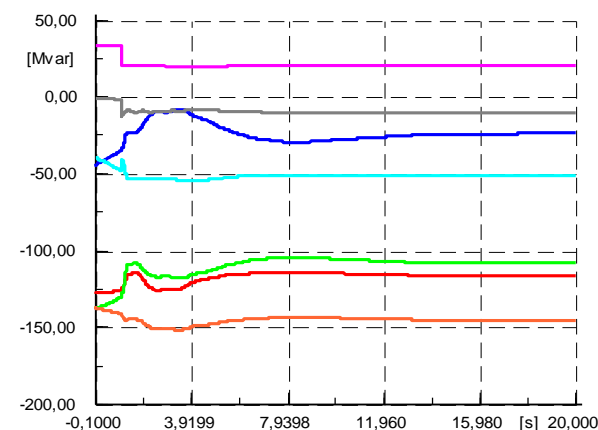
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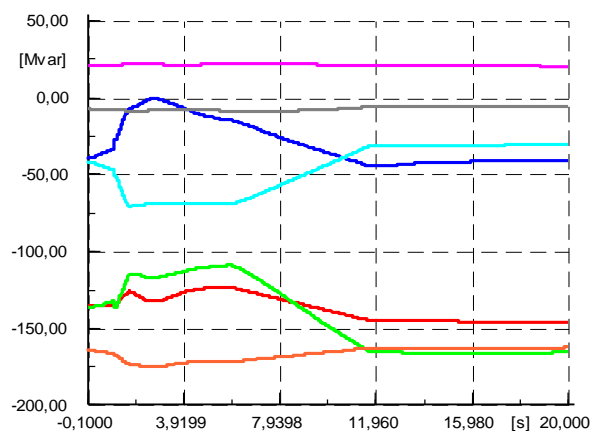
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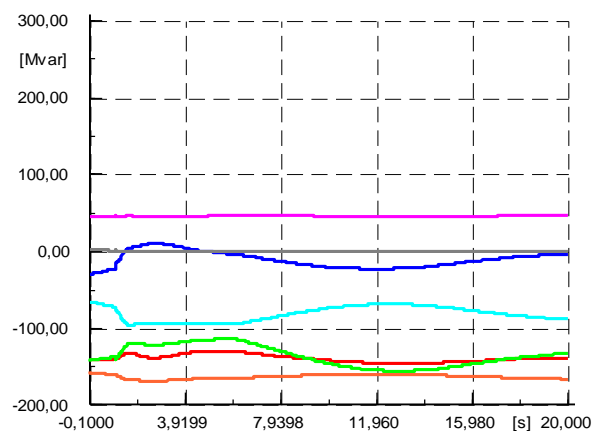
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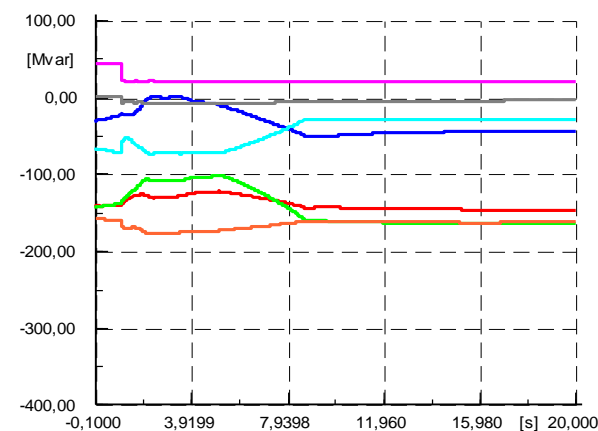
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