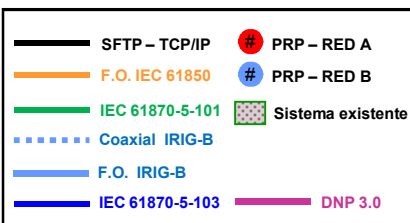
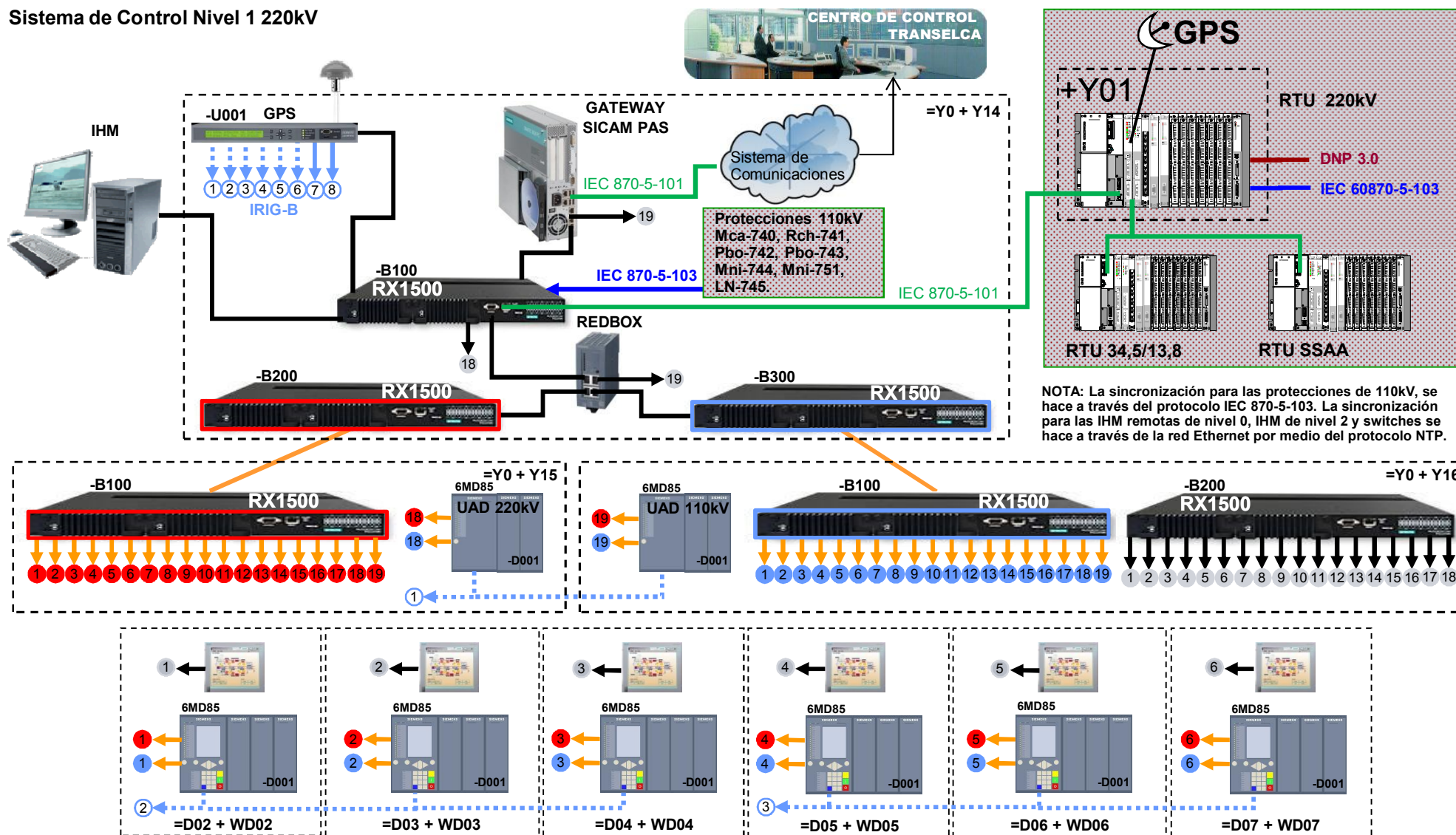


## Sistema de Control Nivel 1 220kV



# SIEMENS

## Smart Grid – Energy Automation

|         |                 |
|---------|-----------------|
| Elaboró | J. Pérez/ SG EA |
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|        |                    |
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| Revisó | L. Becerra / SG EA |
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| Aprobó | D. Taborda / SG EA |
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**S/E Cuestecita 220/115kV**

Arquitectura Sistema de Control

Fecha Emisión

**20.04.2015**

Documento No.

(4)G63076-F1037-601

Página

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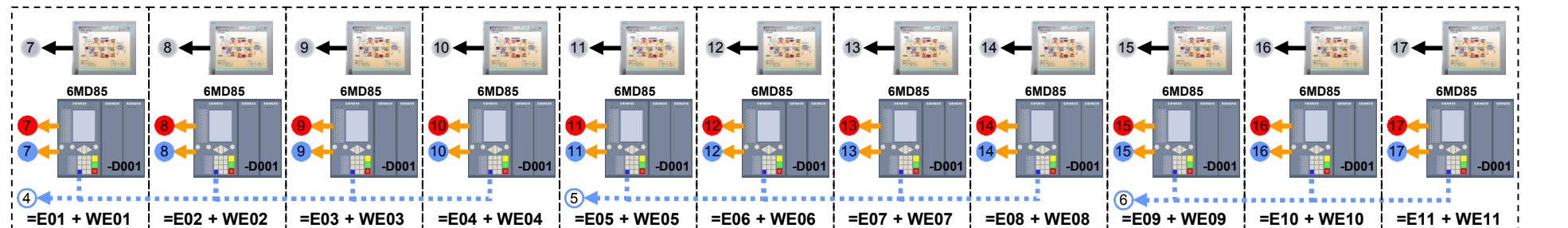
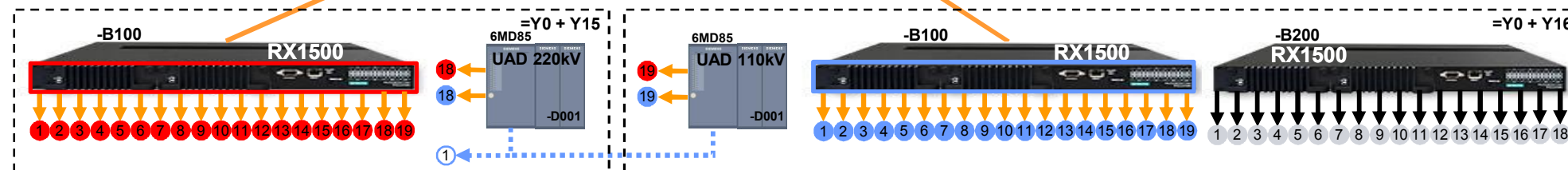
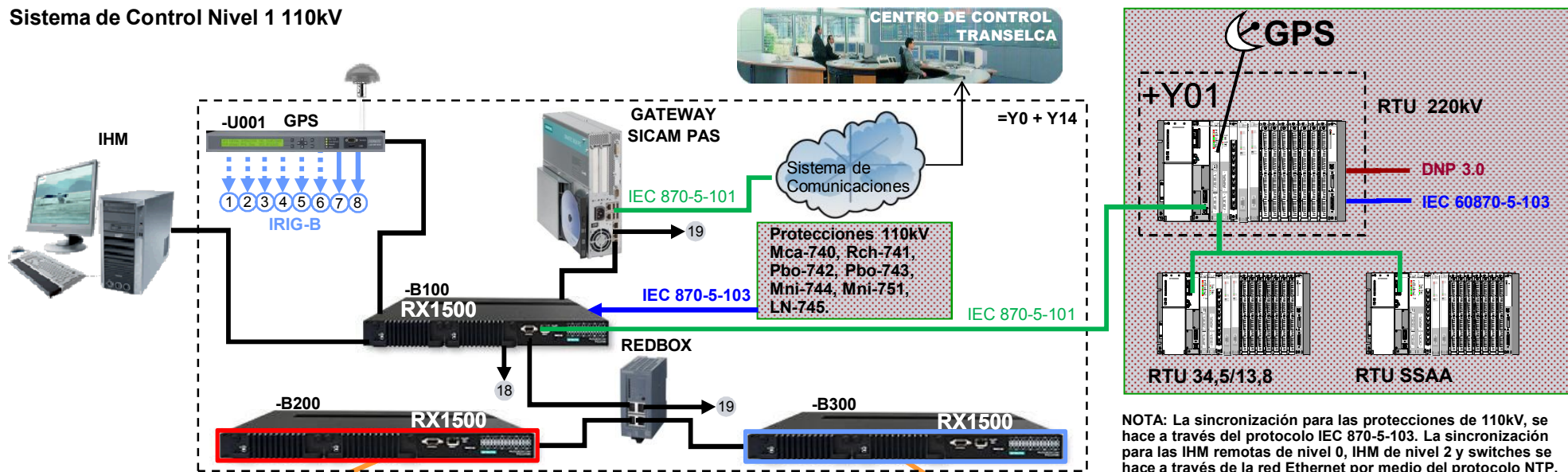
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## Sistema de Control Nivel 1 110kV



Legend:

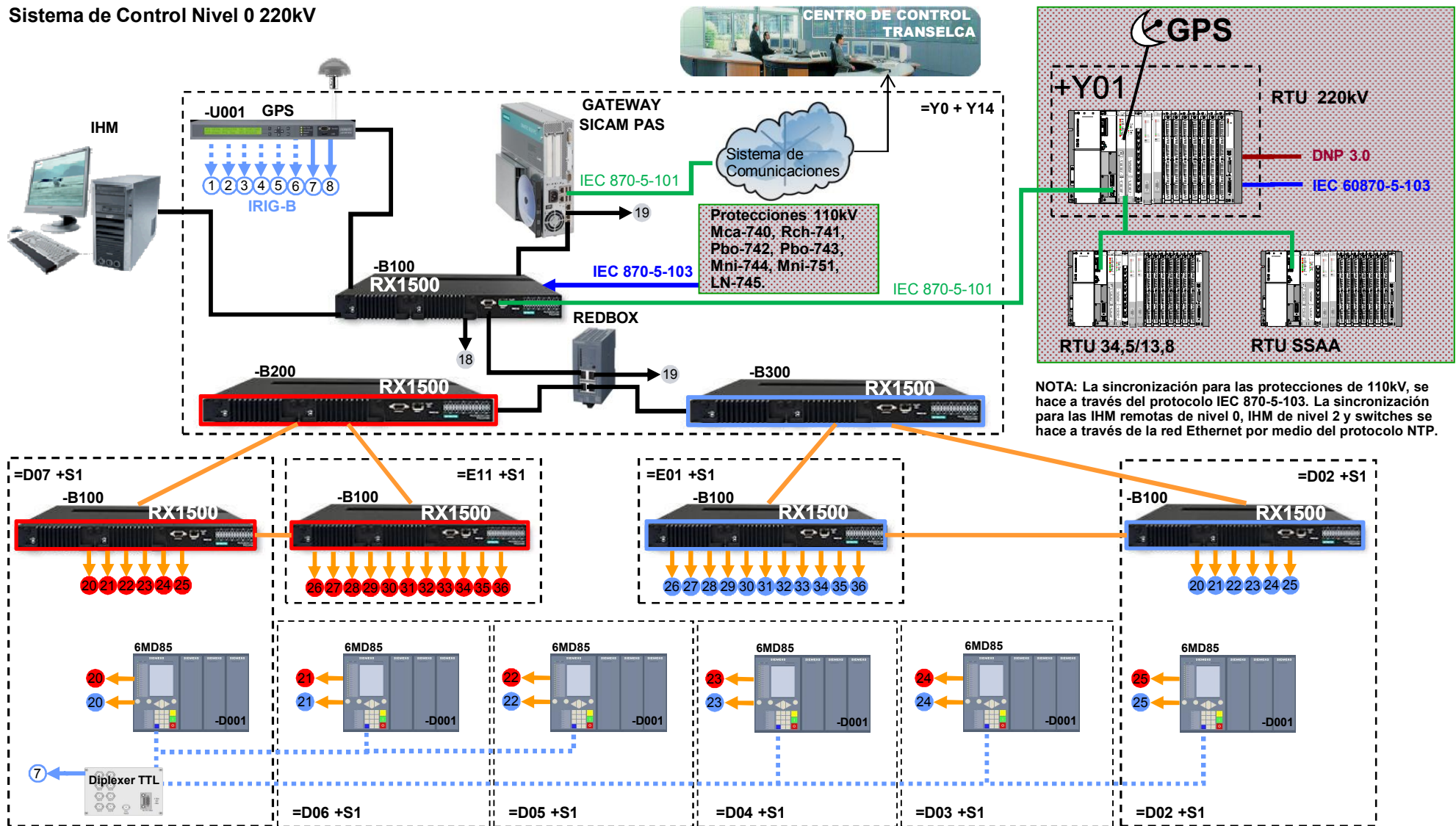
- SFTP – TCP/IP
- F.O. IEC 61850
- IEC 61870-5-101
- Coaxial IRIG-B
- F.O. IRIG-B
- IEC 61870-5-103
- PRP – RED A
- PRP – RED B
- Sistema existente
- DNP 3.0

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|  |                    |  |
| <p>Smart Grid – Energy Automation</p>   |                    |  |
| Elaboró   | J. Pérez/ SG EA    |  |
| Revisó  | L. Becerra / SG EA |  |
| Aprobó  | D. Taborda / SG EA |  |

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| <p align="center"><b>S/E Cuestecita 220/115kV</b></p>                                 |  |
| <p>Arquitectura Sistema de Control</p>  |  |

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| 3                    | 4  |

# Sistema de Control Nivel 0 220kV



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| — SFTP – TCP/IP    | ● PRP – RED A       |
| — F.O. IEC 61850   | ● PRP – RED B       |
| — IEC 61870-5-101  | ■ Sistema existente |
| ... Coaxial IRIG-B |                     |
| — F.O. IRIG-B      |                     |
| — IEC 61870-5-103  | — DNP 3.0           |

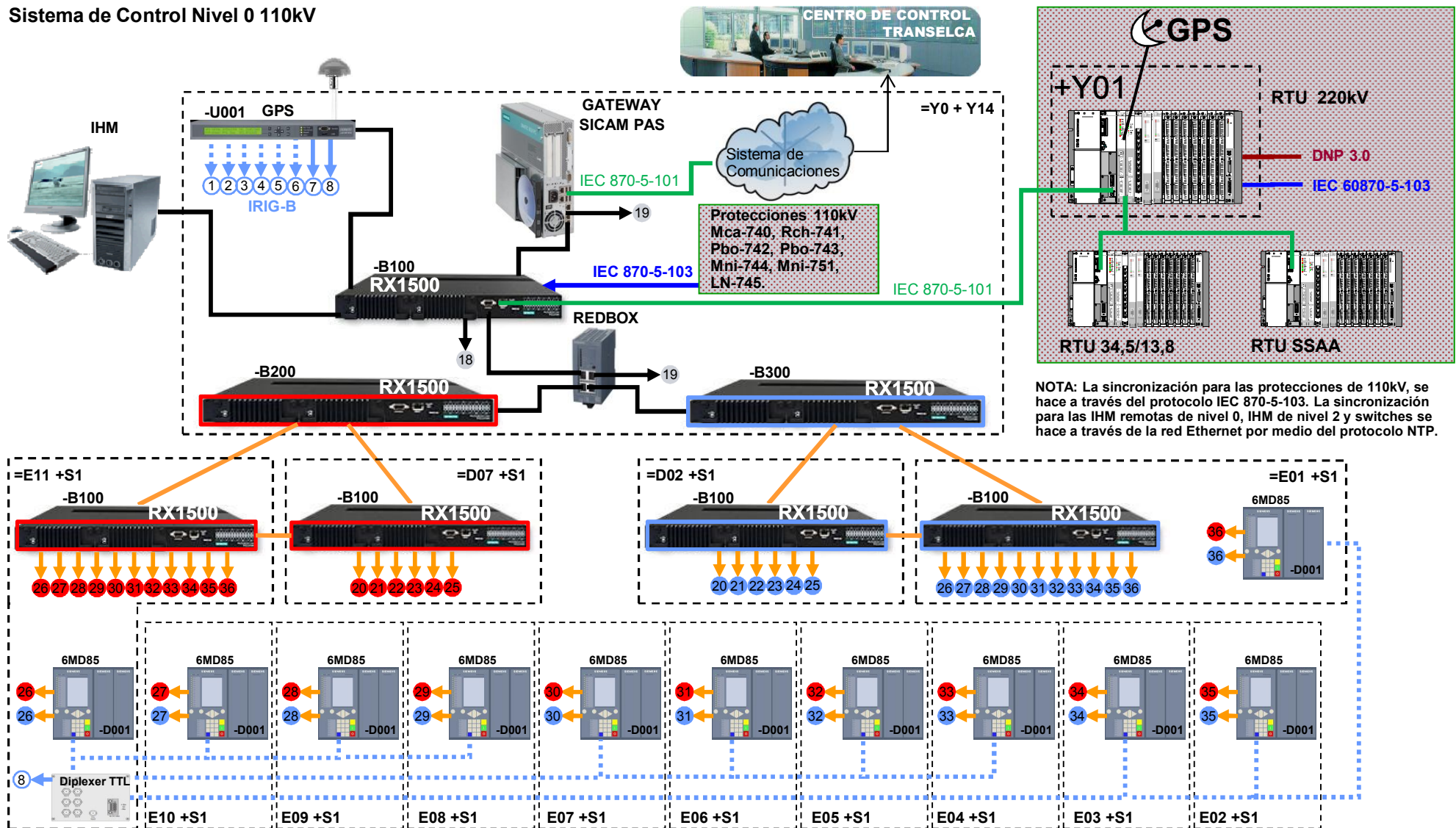
|                                |                    |
|--------------------------------|--------------------|
| <b>SIEMENS</b>                 |                    |
| Smart Grid – Energy Automation |                    |
| Elaboró                        | J. Pérez/ SG EA    |
| Revisó                         | L. Becerra / SG EA |
| Aprobó                         | D. Taborda / SG EA |

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| <b>ISA TRANSELCA</b>            |  |
| <b>S/E Cuestecita 220/115kV</b> |  |
| Arquitectura Sistema de Control |  |

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# Sistema de Control Nivel 0 110kV



|                   |                     |
|-------------------|---------------------|
| — SFTP – TCP/IP   | ⊗ PRP – RED A       |
| — F.O. IEC 61850  | ⊗ PRP – RED B       |
| — IEC 61870-5-101 | ⊗ Sistema existente |
| ⋯ Coaxial IRIG-B  |                     |
| — F.O. IRIG-B     |                     |
| — IEC 61870-5-103 | — DNP 3.0           |

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|--------------------------------|--------------------|
| <b>SIEMENS</b>                 |                    |
| Smart Grid – Energy Automation |                    |
| Elaboró                        | J. Pérez/ SG EA    |
| Revisó                         | L. Becerra / SG EA |
| Aprobó                         | D. Taborda / SG EA |

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| <b>ISA TRANSELCA</b>            |  |
| <b>S/E Cuestecita 220/115kV</b> |  |
| Arquitectura Sistema de Control |  |

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