Regional Coordination Processes Data Exchange Specification (RCP DES)

Release 2.4.2

Document Version 1.0.2
CIM WG agreed on 10 June 2026

Document Version 1.0.1
CIM WG agreed on 09 March 2026

Document Version 1.0.0
ICTC approved on 11 September 2025

Release notes

ENTSO-E updated the CIM-based Network Code Profiles extensions and relevant artifacts—*Application Profiles* (RDFS and SHACL)—to consider new use cases and correct identified bugs.

Release 2.4.2

- Changes magnitude: minor.
    - Specification Documents References

Release 2.4.1

- Changes magnitude: minor.
    - Specification Documents References

Release 2.4

- Changes magnitude: minor.
    - Many functionalities are added in a backward compatible manner.
        - Nevertheless, some changes may be considered as breaking changes (not backwards compatible) like changes in attributes/classes names or addition of new ones.

          The technical agreement is to tag the release as a minor release due to the fact that there is no real implementation of v2.3 of NC profiles at regional level and the expected impact of release 2.4 is not major.
    - The structural part of the data does not change. However, there are new behaviours of the information model in comparison to the previous version.
    - Addition of functionalities.
    - Change in the way the classes attributes in the information model (UML) are used and interlinked.
    - Addition of use cases: implementers add new reasons to use the standard.

- Addition of test use cases: implementers add/provide test models to showcase such functionalities.
- Application profiles are updates; Simple SHACL constraints are generated for all profiles.

- Changes nature: specifications, information model (UML) and Application Profiles (RDFS, SHACL) change.

The release 2.4 of the Regional Coordination Processes Data Exchange Specification features the following main changes

- Changes' description:
  - Default value for isCombinableWithContingency and isCombiablewithRemedialAction
  - Added section System Constraint Justification
  - Added guidance on Representation of HVDC Interconnections
  - Guidance on the use of UCT for datetime attributes in chapter Date and Time notations in NC profiles
  - Recommendations on SPS/SIPS modelling use cases:
    - Implementing SIPS Gate Logic with Cardinality Constraints (Run-back Function on HVDC Link)
    - Modelling Current Flow Conditions Against PATL or TATL
    - Modelling complex SIPS logic (Automatic Generation Shedding)
    - Modelling Voltage Dependent Tripping Conditions (Overvoltage Protection)
    - Modelling SIPS Actions Based on Generation (Anti-swing Protection)
    - Modelling Element Disconnection by Monitoring the Power Flow (Last Line Disconnection)
    - Correction of generation production due to a power flow limit violation
  - Additional guidance to support modelling of contingencies on a *Container* (i.e., *Line* class) in chapter *Ordinary Contingency*.
  - Clarifications on the Distinction Coordinated vs Non-Coordinated SPS
  - Clarifications on the Role of Availability and Arming.
  - Clarifications on the use of RemedialAction.kind for SIPS/SPS.
  - Additional guidance on the was added on the use of *RemedialAction.kind* for SIPS/SPS
  - New section *CGMES/CIM Properties not Part of NC Profiles*.
  - Clarification on the use of *mustStudy* attributes in section *Definition of Ordinary Contingency.*
  - Added note on State Estimation and the Treatment of P/Q Limits During Ramping and Redispatch.
  - Included guidance for Modelling Power Transfer Corridors Cross and Intra Bidding Zones.
  - Included guidance on Power Bids Modelling for Pump Storage Power Plant with Multiple Pump and Generating Units
  - Included guidance on the modelling for Updating Security Limits Before or During CROSA Process.
  - Added guidance on switch retention guidelines in section *Grid Modelling Representation Styles.*
  - Additional guidance on the default value interpretation for is*CombinableWithContingency* and *isCombiablewithRemedialAction* in sections *Assessed Element with Contingency* and *Assessed Element with Remedial Action*.
  - Fixing schema to reflect Availability Schedule is linked with the Outage Coordinator (instead of the System Operator)
  - Addition of use cases for Monitoring of Active and Reactive Flows Using PowerTransferCorridor and Fixed and Variable Limits.
  - New section Ad-hoc Exclusions of Assessed Elements.
  - Added guidance on modelling of Power Plant Schedule Level: Holding time after remedial action & Limiting ramping down within a period.

- Addition of use case for Modelling of Conventional and Renewable Generation from Underlaying Network
- Added introduction to use case Continuous activation of multiple bids modes and holding time
- Addition of use case for modelling Exchange of outage information using the Availability Schedule dataset
- Added guidance for modelling Assessed Element with different limits between base case and contingency analysis
- Added guidance on how to model Power Bid Schedule Dependency (parent-child dependency)
- New section Datatypes – Active Power versus Current
- Adding section on Modelling of Critical Network Elements aligning CSA and CC process perspectives.
- Added IndustryUnit and other classes related to the modelling of containment for distribution
- Changed BiddingZoneBorder to add directions – from/to
- Added fuel storage and reservoir in different profiles to enable scheduling