# IEC 61850 User Feedback Task Force - Support #7297

## Relationship between substituted quality and mode and behavior needs clarification

08/13/2025 02:53 PM - Ben Day

Status	<b>s:</b>	New	Start date:	08/13/2025
Priorit	y:	Normal	Due date:	
Assig	nee:		% Done:	0%
Categ	ory:		Estimated time:	0.00 hour
Target	t version:			
ID:			To discuss in WG10:	No
Sourc	e:		Short Proposal:	
TF Un	ique ID:		Standard(s):	
WG10	Proposal:		Needs More Information:	No
Estima Comp			Assigned TF:	None
Discus	ss in Upcomina	Yes		

#### **Description**

Meeting:

Part 7-3 in its definition of substitution and 7-4 in its definition of mode and behavior create a contradiction that should be clarified to help users understand how they interact to avoid unexpected results.

Part 7-3 Table 16 provides the following definitions of subQ and subEna.

```
subQ: "Any element other than the 'q.source' can be substituted."
   subEna: "If 'subEna' = true, the data value and quality shall always be set to the same value a
s the attributes used to store the substitution data value and quality, ..."
```

If read alone it seems clear that if a user sets subQ.test=true and subEna=true, then q.test will remain true regardless of any other changes like Beh.

But part 7-4 Annex A Table expects q.test=true when LN.Beh=test or test/blocked. For LN.Beh=on or blocked, it is less clear only stating: "Data objects will be transmitted with a relevant quality."

If read alone this seems clear that q.test will transition with changes to LN.Beh.

But when both parts are taken together, one must take precedence. Discussion of Tissue #814 favored allowing substitution of the test bit, and the 7-3 definition of subQ was updated accordingly. So, it seems that substitution may have been intended to take precedence over mode and behavior. If so, 7-4 Annex A should be clarified to indicate how substitution may interact with processing of incoming data.

Note this situation seems likely to result in disparate vendor implementations and interoperability issues.

### History

## #1 - 08/14/2025 01:38 AM - Vladan Cvejic

- Discuss in Upcoming Meeting changed from No to Yes

08/14/2025 1/1