# Weighted Segment Voting Examples

**Examples of Weighted Segment Voting Calculation for Balloting NERC's Reliability Standards**

(Assumptions on numbers of entities are purely hypothetical and used only for illustrative purposes.)

## *Ballot Body and Pools*

| Segment | Registered Ballot Body | Ballot Pools | |
|---|---|---|---|
| | | Standard #1 | Standard #2 |
| 1.   Transmission Owners | 300 | 250 | 100 |
| 2.   RTOs and ISOs | 10 | 10 | 8 |
| 3.   LSEs | 200 | 100 | 50 |
| 4.   TDUs | 100 | 75 | 50 |
| 5.   Electric Generators | 25 | 20 | 25 |
| 6.   Brokers, Aggregators, and Marketers | 10 | 10 | 10 |
| 7.   Large End-Use Customers | 5 | 1 | 4 |
| 8.   Small End-Use Customers | 25 | 10 | 5 |
| 9.   Regulators or Other Government Entities | 50 | 10 | 15 |
| 10. RROs and REs | 10 | 10 | 8 |
| **Totals** | **735** | **496** | **279** |

**Example 1** — Weighted segment vote is greater than two thirds AND more than 75% of the ballot pool returned a ballot. Standard is approved.

| Segment | Ballot Pool | Votes | | | | Abstain | No Ballot |
| | | Affirmative | | Negative | | | |
| | | # Votes | Fraction | # Votes | Fraction | # Votes | |
|---|---|---|---|---|---|---|---|
| 1 | 250 | 200 | 0.833 | 40 | 0.167 | 10 | 0 |
| 2 | 10 | 8 | 0.800 | 2 | 0.200 | 0 | 0 |
| 3 | 100 | 60 | 0.632 | 35 | 0.368 | 5 | 0 |
| 4 | 75 | 50 | 0.714 | 20 | 0.286 | 0 | 5 |
| 5 | 20 | 7 | 0.412 | 10 | 0.588 | 2 | 1 |
| 6 | 10 | 6 | 0.600 | 4 | 0.400 | 0 | 0 |
| 7 | 1 | 0 | | 0 | | 1 | 0 |
| 8 | 10 | 0 | | 0 | | 0 | 10 |
| 9 | 10 | 8 | 0.800 | 2 | 0.200 | 0 | 0 |
| 10 | 10 | 7 | 0.700 | 3 | 0.300 | 0 | 0 |
| **Totals** | **496** | **346** | **5.491** | **116** | **2.509** | **18** | **16** |
| **Ballots** | **480** | **96.8%** | | | | | |
| **Wtd Vote** | | | **0.686** | | **0.314** | | |

No "Affirmative" or "Negative" votes cast, so Segments 7 and 8 not counted in total weighting.

**Percent ballots returned:**
= (480/496) x 100
= 96.8%

**Weighted segment vote**
= (Total Fraction) / (Segments Counted)
= 5.491 / 8
= .677

**Example 2** — Weighted segment vote is greater than two thirds BUT less than 75% of the ballot pool returned a ballot. Standard is NOT approved due to lack of a quorum.

| Segment | Ballot Pool | Votes | | | | Abstain | No Ballot |
|---|---|---|---|---|---|---|---|
| | | Affirmative | | Negative | | | |
| | | # Votes | Fraction | # Votes | Fraction | # Votes | |
| 1 | 100 | 25 | 1.000 | 0 | 0.000 | 0 | 75 |
| 2 | 8 | 6 | .8*0.750 | 2 | .8*0.250 | 0 | 0 |
| 3 | 50 | 30 | 0.600 | 20 | 0.400 | 0 | 0 |
| 4 | 50 | 25 | 0.833 | 5 | 0.167 | 0 | 20 |
| 5 | 25 | 18 | 0.783 | 5 | 0.217 | 2 | 0 |
| 6 | 10 | 6 | 0.600 | 4 | 0.400 | 0 | 0 |
| 7 | 4 | 4 | .4*1.000 | 0 | .4*0.000 | 0 | 0 |
| 8 | 5 | 5 | .5*1.000 | 0 | .5*0.000 | 0 | 0 |
| 9 | 15 | 7 | .7*1.000 | 0 | .7*0.000 | 5 | 3 |
| 10 | 8 | 8 | .8*1.000 | 0 | .8*0.000 | 0 | 0 |
| **Total** | **275** | **134** | **6.816** | **36** | **1.384** | **7** | **98** |
| **Ballots** | **177** | **64.36%** | | | | | |
| **Wtd Vote** | | | **0.831** | | **0.169** | | |

> Segments with less than 10 votes (affirmative or negative) are discounted such that each vote counts 0.1 of the segment weight.

> **6.816/8.2 = .802 or 82.2 % approval**
>
> Denominator is reduced because:
>
> - Segment 2 counts .8
> - Segment 7 counts 0.4
> - Segment 8 counts 0.5
> - Segment 9 counts 0.7
> - Segment 10 counts .8

## Version History

| Version | Date | Owner | Change Tracking |
|---------|------|-------|-----------------|
| 1 | November 4, 2009 | | |
| 1 | March 29, 2024 | Standards Information Staff | Updated template |