

**DRAFT  
TRANSMISSION  
SERVICE  
STANDARDS  
GUIDELINES**



*Energy Retailers Association  
of Australia Incorporated*

**NGF & ERAA JOINT SUBMISSION**

**(The Details)**

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# Summary

- This presentation builds on 3 specific suggestions from participants:
  - “Peak-day” weighting of the standards
  - Publishing ratings “philosophies”
  - Publication of a simple “market impact” measure of constraints

# Need for Peak weighting

- Most of the guidelines' standards are simple time-weighted availability statistics
  - Encourages TNSP's to minimise all outage times
- But 95% of time, networks have large redundancy
  - Quick restoration provides no economic benefit
- Incentive can be perverse:
  - Logistics cause longer outages off-peak
  - Rewards “breakdown” over “preventative” maintenance
- Need to focus on the “5 percent” of system stress times

# How to Peak Weight?

- Simple time/seasonal definitions not good enough
  - Most summer/winter workdays are mild, and networks are unstressed
    - Good opportunities to maintain & protect for extreme days
- System Demand is a good, simple & objective surrogate for “network stress”
  - Probably <20 days (probably <10 in Vic/SA) where network is really stressed
  - Similarly these days tend to have big market impacts when transmission derated
  - All coincident with biggest 20 demand days

# Proposed Weighting

- Circuit availability should only count on the highest 20 days of regional peak demand in the year.
  - The “peak days” are determined *ex-post*
- Creates a big incentive to avoid/restore quickly during peak times
  - or to reschedule if conditions deteriorate
- Ex-post so can never be certain:
  - TNSP must judge the risk in tomorrow’s weather forecast
    - Naturally incentivises reducing outages at all time, but particularly during unpredictable weather

# “Rating Philosophies”

- **Operating limits represent a risk/return trade off**
  - The operating risk appetite should be taken into account when setting revenue
  - If TNSP’s have identical WACC, would expect to identically limits of identical assets
    - But examples show that is not always the case
- **Prescriptive harmonisation impractical**
  - But benchmarking existing practice is.
- **At this time, we suggest only a process of transparency and education**

# Setting Limits

- **A black art to participants**
  - and presumably the ACCC!
- **Complex technical process of TNSP analysis & negotiations with NEMMCO**
  - Due to differences in assets, topography etc., transmission limits necessarily vary
- **But there must be an underlying “philosophy” from which the TNSP assesses each piece of equipment**

# Publication of Philosophy

- A short document that describes how the TNSP approaches its limit setting, including policy for:
  - Identifying credible contingencies
  - Use of Emergency or short-term ratings,
  - Adjusting ratings with ambient conditions,
- Can then convert the technical parameters of any plant into a NEMMCO constraint equation
  - Even *participants* could compare & contrast TNSP's philosophies
- Hopefully drives a culture of pride of best-practice in providing the most service from the least asset.



# Market Benefits

- None of the Draft Guidelines' measures, even when peak weighted, measures what regulated transmission actually produces:
  - The long-distance trading of electricity.
- Guideline incentives can be perverse:
  - e.g. TNSP fixes minor lines first
- We concur market based incentives very hard
  - We see no perfectly reliable and simple measures, so the proposal discussed here is again a publication tool only at this stage rather a than a financial arrangement.

# Market Impact measure suggestion

- All “macro” elements of the transmission network have a nominal capacity
  - For inter-connectors provided in SRA info memorandum
  - For intra-connectors, is the “system normal” capacity from limits manuals.
- All transmission capacities are represented by a constraint equation in the NEMDE
  - For each binding constraint there is a published “shadow price”
    - The improvement in total market trade (in \$/MWh) if the constraint were released by one MW.

# Publishing market impact

- Thus, we have publicly available the 2 key measures of the market impact of transmission limit reduction:
  - Reduction from nominal capacity in MW
    - » multiplied by
  - Shadow price of binding constraint in \$/MWh
    - Equals the impact of limit reduction on the market for that dispatch interval
- We acknowledge, however, that the reduction may not be under the control of the TNSP
  - But we want the TNSP to think about the reduction and explain it.

# Publishing market impact

- TNSP tracks all constraints applied to its network
  - When a the calculation from any one constraint exceeds \$100k in one day:
    - Event published in a quarterly report
    - With explanation as to the TNSP's view as to the cause
  - Interconnectors would be published by both TNSP's
  - Reporting done by TNSP, not NEMMCO
    - To increase market understanding by TNSP's
    - To educate the market as to what improvements are feasible

# In summary

- ERAA/NGF submission supports ACCC's desires, but wants to go further.
- We sympathise that applying performance standards to regulated networks to achieve “market” objectives is difficult.
  - Therefore we have made constructive, detailed, suggestions:
    - Peak Weighting
    - Publication of “Rating Philosophy”
    - Publication of a Market Impact Event report

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