

## **Agenda item 4.1 (b)**

Paragraph 21(a) of the annotated agenda,  
Annex 5 to the 74<sup>th</sup> MP meeting report

# Revision of AM0118: Introduction of low resistivity wire or cable to new or existing power line

**CDM EB 97**

Bonn, Germany, 30 October to 3 November 2017



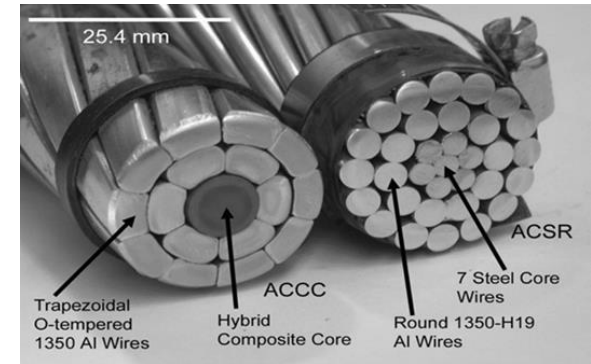
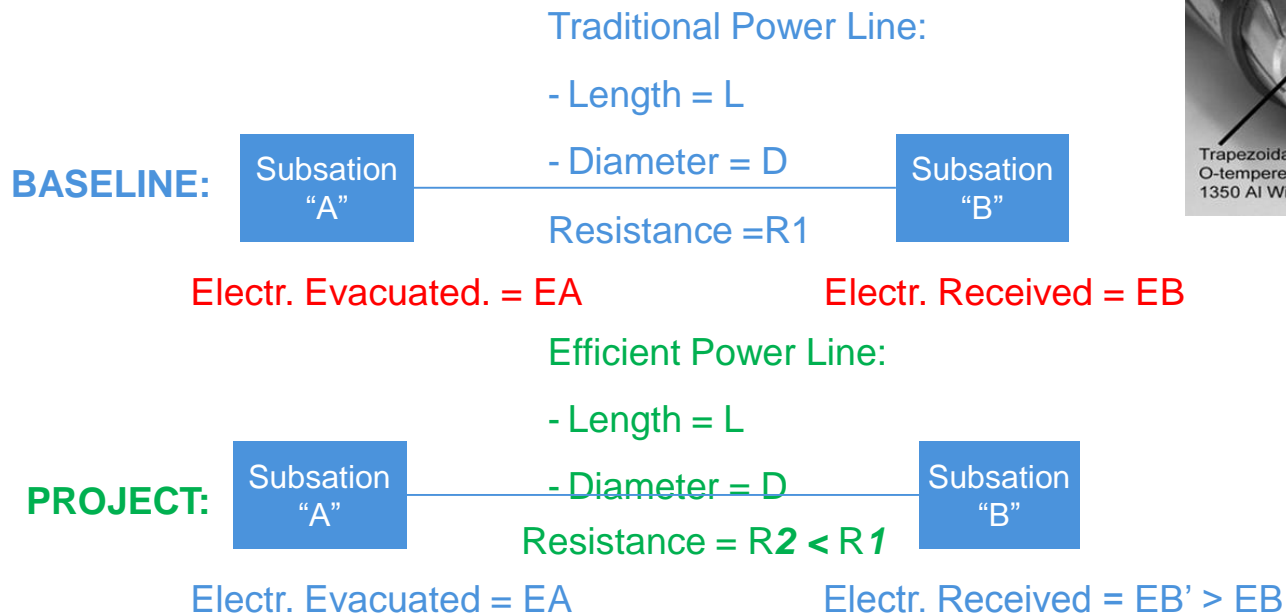
## Background

---

- EB 92, para 40 requested the MP to further assess whether the requirements below are essential in the methodology or whether they could be modified or removed considering that sufficiently robust monitoring procedures are included :
  - a) The electrical resistance of the project transmission line is at least **10% less** than the conventional transmission line;
  - b) The load curve during the project should resemble the baseline load curve with a maximum **+/-20% variation**
- MP 74 proposed revision taking into account expert inputs



- Applicable to project activities that replace high resistance transmission line ( e.g., ACSR) with low resistance transmission line (e.g., ACCC) ;



ACCC: AL conductor composite core

ACSR: AL conductor steel reinforced



## Key Issues and proposed Solution

---

- **Issue 1: PJ resistance < 10% compared to BL resistance**
- **Proposal:**
  - **Replace 10% with 5% threshold**
    - **Only apply for option using calibrated simulation option to determine BL losses**
  - For direct measurement option, adjust accounting for uncertainty
    - Eqn introduced (based on IPCC) and illustrative example provided
  - Further clarity provided in monitoring: meters of similar accuracy class at sending/receiving ends of the line
- **Rationale:**
  - Simulation method accuracy (up to **5%** error)
  - Direct monitoring: Error margin on energy-metering = +/- 1.5% to +/- 5%.



## Key Issues and proposed Solution

---

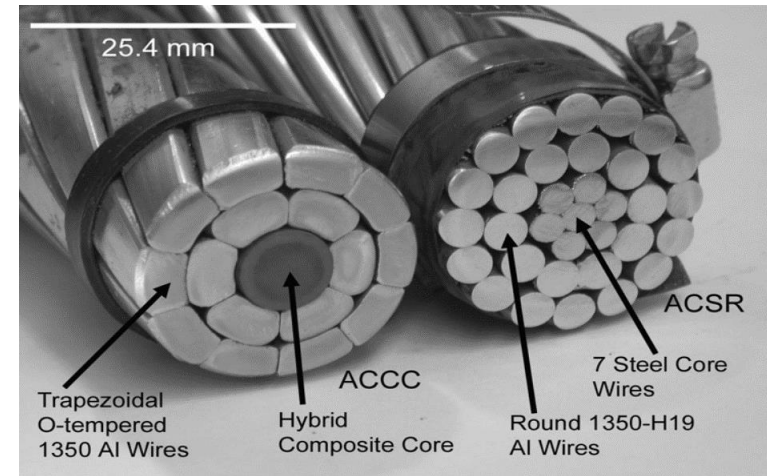
**Issue 2: Load curve** during the project should resemble the baseline load curve with a maximum **+/-20% variation**

- **Proposal:**
  - Remove the requirement .
- **Rationale:** not necessary as the load curve is derived for project case using actual measurement (ex post) and applied for the baseline to compute transmission loss reduction



### Other issue: +/-20% variation mechanical characteristics

- **Current Text:** The PJ transmission line possesses the same or equivalent mechanical characteristics of no more than **+/- 20 %** as compared to BL line
- **Proposal:**
  - Retain the requirement.
- **Rationale:**
  - not possible to have same diameter and conductor cross sections in both (baseline and project cases)
    - Different standards apply for ACCC (PJ) and ACSR (BL): ACSR IEC 61089, for ACCC ASTM B987 / B987M – 17)



## Impacts

---

- The proposed draft revision if approved will further clarify requirements related to criteria to determine baseline and monitoring of transmission losses.



## Recommendation

---

- The MP recommends that the Board adopt this draft revised methodology

