

## **CIGRE Study committee C1**

### **PROPOSAL FOR THE CREATION OF A NEW WORKING GROUP**

#### **JWG C1.55**

##### **NAME OF THE CONVENOR**

Scott Atha (SOUTH AFRICA)

##### **TITLE**

A Benchmarking survey on the use of Asset Investment Planning practices and systems by Utilities

#### **THE WG APPLIES TO DISTRIBUTION NETWORKS: NO**

##### **ENERGY TRANSITION**

- 3 / Digitalization
- 4 / Sustainability and Climate Change
- 5 / Grids and Flexibility

##### **POTENTIAL BENEFIT OF WG WORK**

- 1 / commercial, business, social, economic benefits
- 2 / potential interest from a wide range of stakeholders
- 4 / state-of-the-art or innovative solutions or directions
- 5 / Guide or survey on techniques, or updates on past work or brochures

##### **STRATEGIC DIRECTION**

- 2 / Making the best use of the existing systems
- 3 / Focus of the environment and sustainability (in case the WG shows a direct contribution to at least one SDG)

##### **SUSTAINABLE DEVELOPMENT GOAL**

- 7 / Affordable and clean energy
- 9 / Industry, innovation and infrastructure

#### **BACKGROUND :**

Transmission utilities have adopted asset management (AM) principles to best manage the balance between network performance, risk, and cost. One of the levers required to achieve and sustain this balance is through effective and efficient delivery of CAPEX (that is, capital investments in network expansion and asset renewal) plans, considering multiple decision variables and the need to satisfy a given set of constraints (inclusive of network losses and redispatching rules), and also as a trade-off against increased OPEX (ordinary maintenance) which is crucial when considering grid expansion due to the evolution of energy mixes. There is therefore, a need to implement asset investment planning methodologies, value frameworks based on sound asset management principle and to utilise systems and tools to enhance the business capabilities, in order to deliver effective and efficient investment programmes.

**PURPOSE / OBJECTIVE / BENEFIT OF THIS WORK :**

A significant challenge in asset management is the selection of investment projects, which sometimes relies on subjective judgement and lacks structured decision support methods. By undertaking this initiative CIGRE will enhance its knowledge base and reach in the area of capital investment planning for utilities.

Survey the scope and decision making context of Asset Investment Planning. Asset investment planning incorporates combination of both network expansion projects and replacement/renewal of existing network assets.

**Remarks:**

Questionnaire to be provided to Cigre-members/participating utilities to assist with data and information collection. It is envisaged that the scope of work will provide insights on investment decision-making trade-offs analysis and scenario planning.

**SCOPE :**

- Benchmarking Asset Investment Planning & Management practices and the systems used by CIGRE's member utilities to perform such tasks.
- Investigate the principles and methodology applied to identify the optimal mix of capital investments.
- Investigate the extent of use of optimisation methodologies for asset management capital investments planning.
- Explore the use and implementation of value-based investment decision-making for capital projects.
- Identify the investment decision-making “best practices” based on empirical data collected via a "market/industry" survey developed and provided to Cigre-member utilities.
- Investigate the use of monetized risk-based investment justification methods in mid-long-term investment planning. The study will be conducted in conjunction with the prescripts and guidelines of asset risk management standards such as IEC/ISO 31010 and IEC 63223 and IEC 63224 series.
- GO15 association will be consulted for its input and insights.

In order to fully benefit of the experience of prospective members gained within ENTSOE Working Group Asset Implementation Management, under the System Development Committee, which has approved the collaboration, this has been labeled as JWG Cigre C1 - ENTSOE. Contributions from ENTSO-E shall be properly recognised, keeping the collaboration at operational level.

**DELIVERABLES AND EVENTS**

**Deliverables Types**

Annual progress and activity report to Study Committee  
Electra report  
Meeting  
Technical Brochure and Executive Summary in Electra  
Tutorial  
Webinar  
Work Schedule

**Time schedule**

Q2	2025	• Recruit members (National Committees, WiE, NGN)
Q2	2025	• Develop final work plan
Q3	2025	Survey
Q1	2026	• Draft TB for Study Committee Review
Q2	2026	Final TB
Q3	2026	Tutorial / Webinar

**APPROVAL BY TECHNICAL COUNCIL CHAIRMAN:**

Rannveig S. J. Loken  
June 18th, 2025