



ETIP SNET

EUROPEAN SMART
TECHNOLOGY AND NETWORKS FOR
INNOVATION INNOVATION ENERGY
PLATFORM PLATFORM TRANSITION

PLAN.
INNOVATE.
ENGAGE.

WG1: RELIABLE, ECONOMIC AND EFFICIENT SMART GRID SYSTEM



1. ETIP-SNET's role is to **guide Research, Development & Innovation (RD&I)** to support Europe's **energy transition**.
2. WG1 is focused on **system aspects**, addressing the **main functionalities, quality and efficiency of the electricity system** as such and considering the benefits of its **integration with the other energy vectors**.
3. WG1 activity is mainly devoted to provide support in developing:
 - i. ETIP SNET vision,
 - ii. SET Plan Action 4.1 Implementation Plan and
 - iii. SET Plan Action 4.2 Implementation Plan
4. Next year activities will be concentrated on **on-going projects, monitoring and knowledge sharing, updating ETIP-SNET 10-year roadmap**, interacting with EC in the definition of the **new framework program for Research & Innovation**



1. WG1 mission

2. WG activity

- i. ETIP SNET vision,
- ii. SET Plan Action 4.1 Implementation Plan and
- iii. SET Plan Action 4.2 Implementation Plan



Specific objectives

- Addresses the mid and long-term business and technology trends contributing to the overall **energy system optimization** at affordable investment and operation costs, with particular reference to **system development scenarios, network planning, operation, observability and control, asset management, flexibility as seen from the system aspects and resilience**
- **Focus on system aspects**, addressing the main functionalities, quality and efficiency of the electricity system as such and considering the benefits of its integration with the other energy vectors
- WG1 follows on **Set Plan Action 4**: Grid smartening in the sense of **grid observability and controllability, which bring to the system improved forecasting and operation, tools for managing the variability and uncertainty of operational conditions** at several timescales and increased grid hosting capacity. **The economic efficiency of the system** through the use of ICT (Information and Communication Technology) equipment's as well as through the implementation of appropriate market design



Subjects to be considered

Power System
modernisation and
increased cross-border
connections capacities

Transmission/Distribution
network expansion and
investments based on a
'connect and manage'
approach

Integration within the
energy system

Market aspects

Six fields of activity in 2017

1. Comments on EU WP 2018-2020
2. Comments on ETIP SNET Implementation Plan
3. TF 1: Collaboration on ETIP SNET Vision of the Energy System
4. TF 2: Input on SET Plan TWG4: 4.1 Targets & Action Plan
5. TF 3: Input on SET Plan TWG4: 4.2 Targets & Action Plan
6. TF 2 & 3: input on the TWG4 fiches of the SET PLAN IP

Additionally, WG1 is providing support to *Intensys4EU* team on the Regional workshops for outstanding national/regional projects monitoring & knowledge sharing.

TF 1 ETIP SNET Vision

- Is a high level document
 - in line with the [Vision and Strategy for European Electricity Networks of the Future](#) (ETP Smart Grids in 2006) and
 - with the [Vision document developed at European level for the Aviation sector.](#)
- Considers aspects such as the central role of Europe as sector leader, the environmental concerns, the **energy** system scenarios, the inclusion of the consumer, the necessary innovation requirements etc.
- Considers targets 2030 and progressively 2050
- Leverages the
 - European Energy Scenarios (2030 and 2050),
 - EHighWay2050-Scenario analyses,
 - TYNDP 2016/2018 (Draft) Scenarios
- Vision (document publication) target date is in June 2018
- INTENSYS4EU coordinates the work of gathering and distilling the final vision document.

TFs 2 & 3 Updating targets Action 4.1 & 4.2.

- SET Plan – Declaration on Strategic Targets in the context of an Initiative on Energy Systems (Brussels, 19th October 2016)
 - Strategic Targets for Action 4.1) An optimised European power grid (by 2030)
Grid observability and controllability, Demand response, flexible Generation, Energy storage
 - Strategic Targets for Action 4.2) Integrated local and regional energy systems
Integrated local and regional energy systems, Management of energy networks, Minimising the consumption of non-renewable resources, Flexibility of the energy system, Resiliency,

TFs 2 & 3 TWG4 fiches of the SET PLAN Implementation Plan

- The **Temporary Working Group of Action 4** has prepared “**fiches**” which will be **core for the set plan implementation plan of member states**. In the end one or more fiches will address each target of the declaration and will focus on targets addressed, TRL increase, deliverables, timeline, budget, consensus, instruments, ...
- WG1 is invited to contribute to the discussion on fiches which are available as living documents at Expera platform
- 2 volunteers (one for A 4.1 and one for A 4.2) have got full access to the expera platform and can add the results of our discussions to the living document and will act as interface of WG1 and TWG A4.



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**Thank you for your
attention**

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