

1st HVDC User Group meeting

Supporting the development of a European network code on
HVDC connections and DC connected Power Park Modules

Hotel Martins Central Park
Brussels
12 March 2013, 12h00 – 16h30

A warm welcome to all interested parties who responded

- Open invitation letter on 31 Jan. 2013
- Expressions of interest welcomed by 1 Mar. 2013
- Focus on pan-European associations
- Two nominated experts per organization
- Expectation of active/continuous contribution

Observers

CIGRE B4-56

ACER *

EC *

** Excused*

Participants

ABB

BritNed (& other DC link owners)

DNV

ElecLink *

Eurelectric

EWEA

FNN/VDE

Friends of the Supergrid *

GDF Suez

GE Global Research

Iberdrola Engineering

IFIEC

Mitsubishi Electric

Pöyry *

Repower

RWE wind

Siemens

Statoil

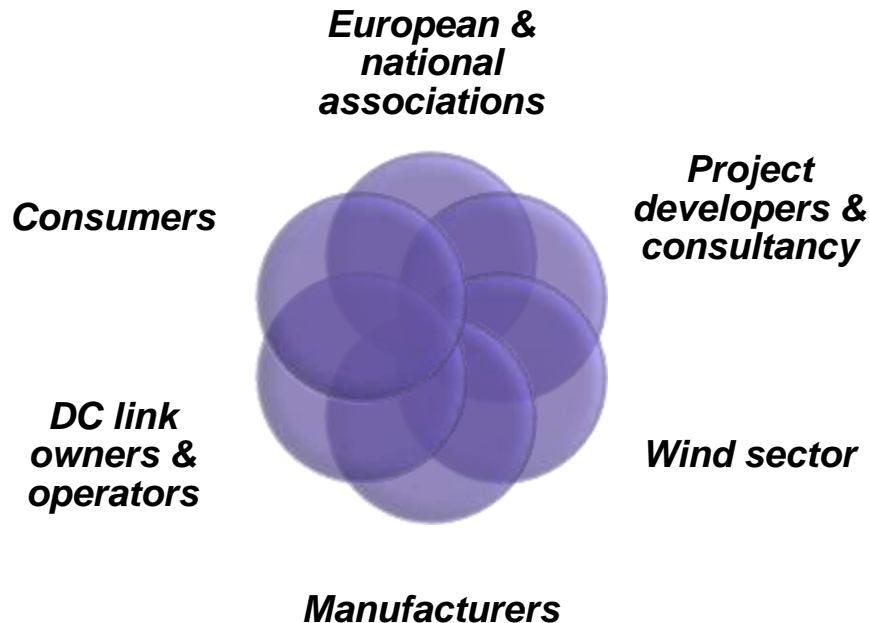
Swisselectric

The Crowne Estate *

Vestas Wind Systems A/S

VGB PowerTech

World Energy SA

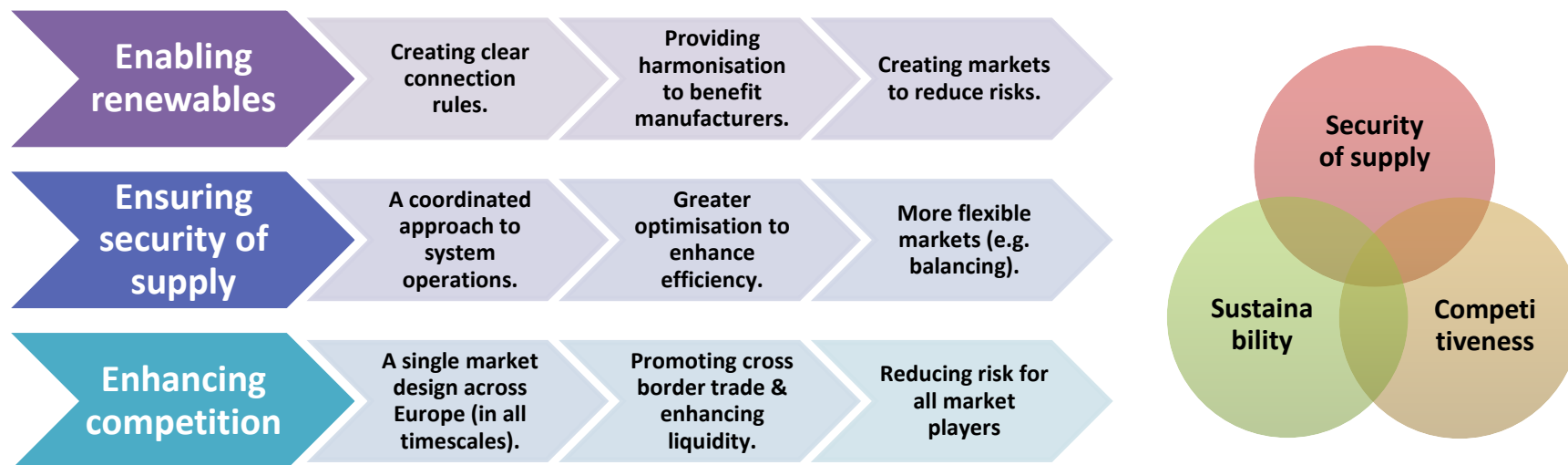


Agenda

12:00	Sandwich lunch	
13:00	Welcome & introduction	ENTSO-E
13:10	Network Code development <ul style="list-style-type: none"> ▪ overview of all codes ▪ NC HVDC process ▪ Objectives of the User Group 	ENTSO-E
13:30	Round table of User Group members <ul style="list-style-type: none"> ▪ To which extent would your organization/sector be impacted by a European code on HVDC connections? ▪ How can your organization/sector actively contribute in the development of the NC HVDC, with a focus on e.g. experience, performance data, cost implications, related involvement in national codes/standards? ▪ What benefit do you believe a European code on HVDC connections could bring to your organization/sector and the wider power system? 	All participants
14:50	Coffee break	
15:20	NC HVDC initial scope <ul style="list-style-type: none"> ▪ First ideas ▪ Round table discussion 	ENTSO-E & all participants
16:20	Next steps	ENTSO-E
16:30	End of Meeting	

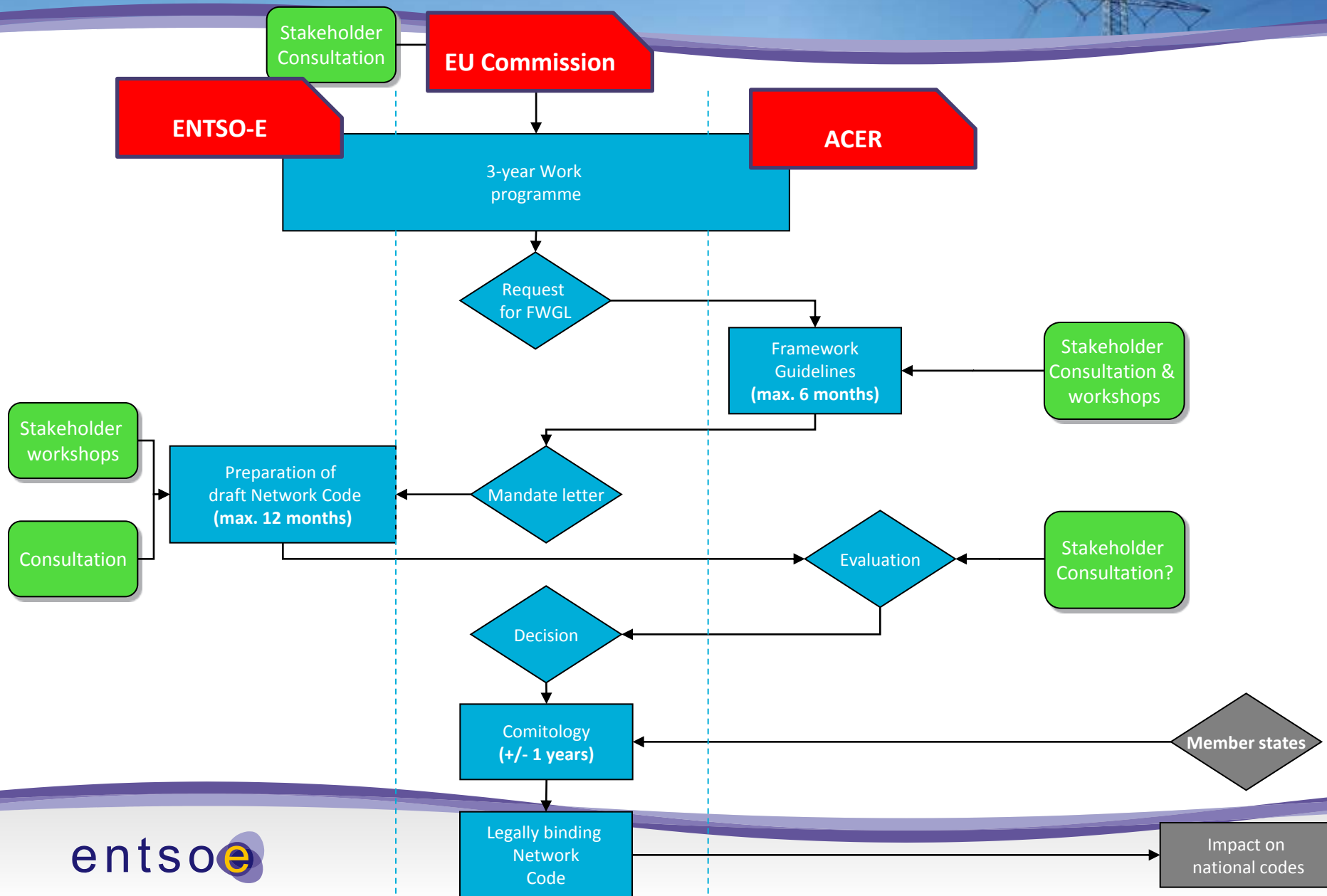
Network Code Development process

➤ *Why Network Codes?*

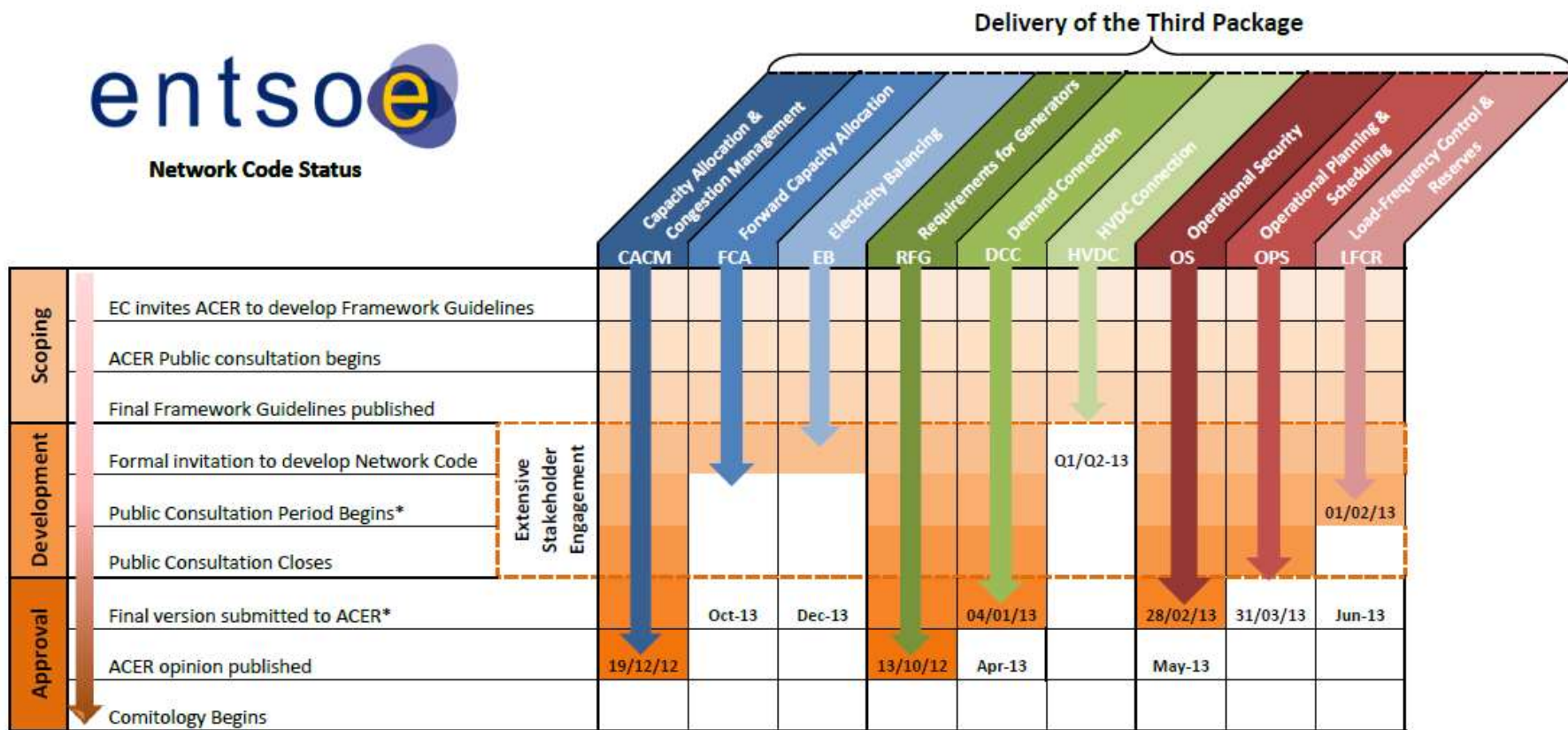


- A set of rules applying to **one aspect of the energy sector**;
- Which are developed by **ACER, ENTSO-E & Market Participants**;
- And become **legally binding** after the Comitology process as EU Regulation.

Network Code Development process



Overview of Network Codes on electricity



Disclaimer: The purpose of this chart is to provide overall transparency of ENTSO-E's network code development. All forward-looking dates are provisional until confirmed. Stakeholders will be informed and invited to all confirmed events by means of official communication

* In accordance with ENTSO-E's Network Code Development Process, an internal re/drafting and approval is done before public consultation and submission of the code to ACER.

Nine codes - one vision

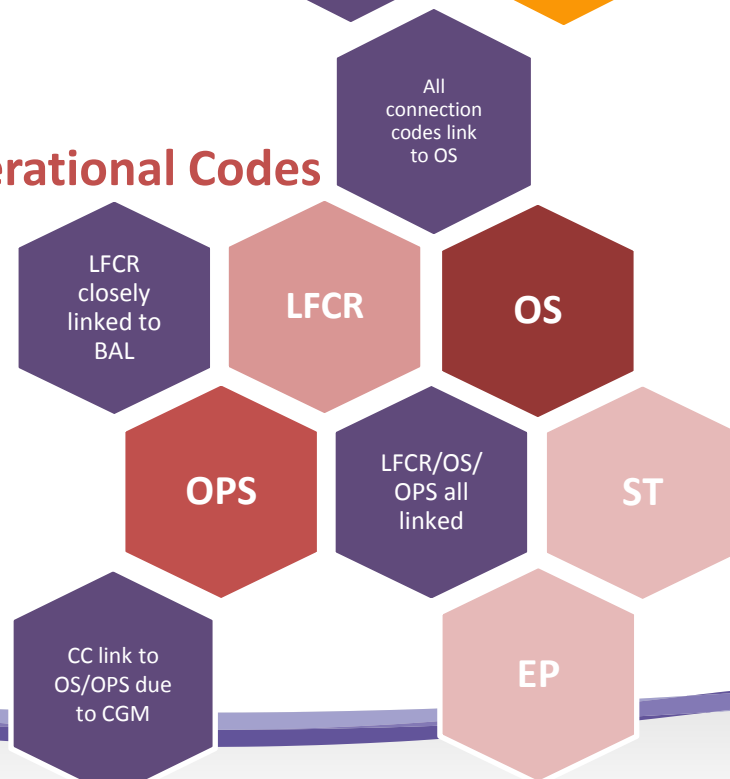
- Aligned processes with RfG/DCC
- Ensuring future proof LFC&R rules
- Facilitating crossborder trading



Connection Codes

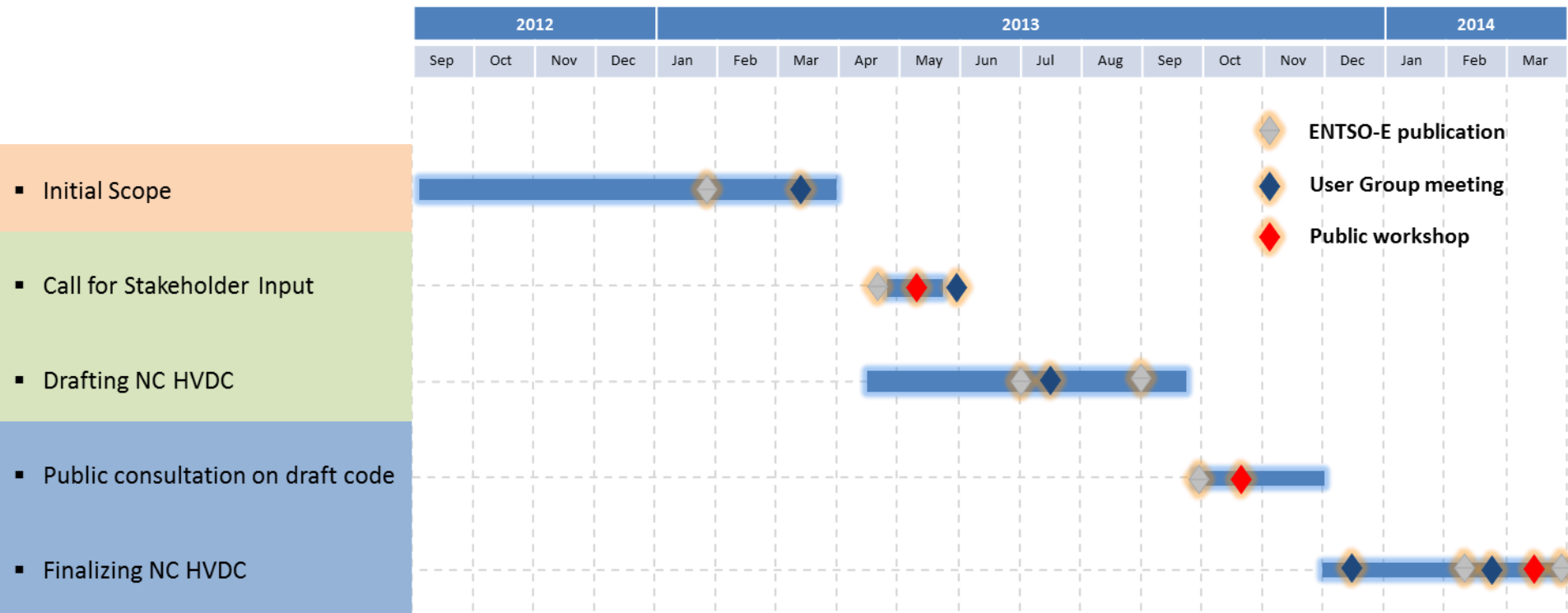


Operational Codes



NC HVDC development process

EC 12 month mandate



NC HVDC User Group – ENTSO-E expectations

Focus on an efficient working forum

- Hence, a preference for liaising via European associations
- Pragmatism prevails

Active and continuous contribution of nominated experts throughout the process

- +/- 5 meetings envisaged
- Participants are expected to represent the views of their organization
- Participants positions are expected to present the impact (😊 / 😐 / 😞) of the draft code on their organization/sector
- A User Group is not a listening forum

Key forum for engagement with the wider industry

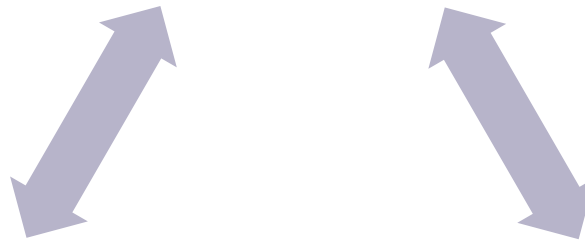
- In addition to formal consultations, public workshops, and possible bilateral meetings

Agreed outcome will be public

- Minutes drafted by ENTSO-E, open for comments by all, published on ENTSO-E site

NC HVDC User Group – your expectations?

To which extent would your organization/sector be **impacted** by a European code on HVDC connections?



What **benefit** do you believe a European code on HVDC connections could bring to your organization/sector and the wider power system?



How can your organization/sector actively **contribute** in the development of the NC HVDC



Next steps

- Finalization preliminary scope
- “Call for Stakeholder Input” at the start of the EC 12-month mandate
 - *Formal consultation (+/- 1 month)*
 - *Feedback from at minimum all User Group organizations expected*
 - *Questions on preliminary scope*
 - *Questions on general approaches towards NC HVDC*
- 2nd User Group meeting to discuss feedback received in Call for Stakeholder Input & work towards first draft code