



Track IV  
REGIONAL COOPERATION

# Pathways to Sustainable Energy: Project Kick-off and Scenario Scoping

09:00-10:30, 14 June 2017

Workshop



# Pathways to Sustainable Energy: Project Kick-off and Scenario Scoping

09:00-10:30, 14 June 2017

Workshop

## Moderator

- **Ms. Stefanie Held**, Section Chief, Sustainable Energy, Sustainable Energy Division, UNECE

## Presentation: Project Overview; Conceptualising the project: Storylines, Scenarios, and Target Definition

- **Ms. Lisa Tinschert**, Project Manager, Pathways to Sustainable Energy Project, United Nations Economic Commission for Europe (UNECE)



# Pathways to Sustainable Energy: Project Kick-off and Scenario Scoping

09:00-10:30, 14 June 2017

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## Discussion: Hearing from the experts: What matters towards 2050? And how can it be modelled?

- Comments and reactions to the overview provided
- Which research questions, case studies and deep dives should be included in the modelling?
- Which other drivers and indicators should be included in the modelling?
- How to ensure maximum stakeholder engagement over the project timeframe? - Workshops, dialogues and consultations with countries and experts
- Further recommendations for the project

# DRAFT Research Questions

## Thematical / Sub-regional Case Studies & Deep Dives

ENERGY



### Focal question: How can countries attain sustainable energy?

- Role of FF in a future sustainable energy system
- Methane leakage from extraction, transmission, distribution
- Competitiveness of RE compared to FF; synergies of RE & FF; RE grid-integration; RE and Gas
- Energy efficiency policies as enabler for other policies / holistic approach
- Investment requirements to attain certain level of RE, changing of investment patterns for transition towards SE system
- Quantum leap of technologies: Technologies as game changer
- Sub-regional topics to be defined
- Others

# Building the Scenarios, based on SSP2

## Indicators (Output)

### ENERGY



- Indicators
  - Final energy intensity (SDG7)
  - Carbon intensity (SDG13)
  - Carbon budget (temperature change)
  - Energy prices
  - Share of RE (SDG7)
  - Investment requirements (SDG7)
  - Energy imports and exports
  - Food prices / consumption (SDG2)
  - Energy access (energy use?) (SDG7)
  - Water use of energy sector (SDG6)
  - Pollutants (SDG9)

# Building the Scenarios, based on SSP2

## Drivers (Input)



### ENERGY

- **Meta Drivers** (underlying characteristics of energy system)
  - International Cooperation (degree of openness to trade)
  - Innovation (technology costs development, changes in efficiency, business models)
- **Drivers** (Range definitions)
  - Energy efficiency (end-use, conversion)
  - Energy Storage
  - Electric Vehicles
  - Abundance of fossil fuels (all types), extraction costs
  - CCS (incl. BECCS)
  - Power to X (efficiency, CapEx)
  - Nuclear
  - Renewable energies (BM, non-BM, system integration, CapEx, efficiency)
- **Policies**
  - Subsidies (carbon price, taxes, etc. )

# Project Management Discussion

## DRAFT Timeline Implementation

### ENERGY



Expert Workshop at CSE - tbc  
Geneva, Sep 2017

Policy Dialogue at CSE  
Discuss policy options & pathways  
Geneva, Sep 2018

Expert Workshop - tbc  
Discuss technology & policy options  
tbd, Q1-Q2 2018

Expert Workshop at 9th IFESD  
Derive / discuss policy options / pathways  
Ukraine, Q3 2018

Modeler Kick-off Workshop  
Oberhausen, May 2017

High-level Political Dialogue  
Russia (tbc), Q1 (2019)

**Kick-off & Expert Workshop at 8th IFESD**  
Astana, Jun 2017



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# Pathways to Sustainable Energy: Policy & Technology Options to Achieve Sustainable Energy

11:00-12:30, 14 June 2017

Workshop





## Pathways to Sustainable Energy: Policy & Technology Options to Achieve Sustainable Energy

11:00-12:30, 14 June 2017

Workshop

### Moderator

- **Ms. Stefanie Held**, Section Chief, Sustainable Energy, Sustainable Energy Division, UNECE

### Presentation: Framing the Target: Sustainable Energy in 2050

- **Ms. Lisa Tinschert**, Project Manager, Pathways to Sustainable Energy Project, United Nations Economic Commission for Europe (UNECE)



# Pathways to Sustainable Energy: Policy & Technology Options to Achieve Sustainable Energy

11:00-12:30, 12 June 2017

Panel Discussion

## Country Presentations: Sustainable Energy Futures

- **Mr. Aleksandar Dukosvki**, Director, Energy Agency, FYR of Macedonia
- **Mr. Artan Leskoviku**, Director of Energy, National Agency of Natural Resources, Albania
- **Mr. Mikhail Malashanka**, Vice Chairman, State Committee on Standardization, Director Energy Efficiency Department, Belarus



## Pathways to Sustainable Energy: Policy & Technology Options to Achieve Sustainable Energy

11:00-12:30, 14 June 2017

Workshop

### Discussion: National Perspective on Sustainable Energy

- **What is energy for sustainable development? How do countries interpret sustainable energy?**
- **Agenda 2030 and the Paris Agreement: How do countries implement global targets? How to meet different priorities?**
- **Looking at the possible pathways ahead: What are policy options to achieve the set target? How can cross-cutting themes be aligned with different national priorities?**
- **How to create holistic policy frameworks (adaptive, flexible)?**
- **How can regional cooperation help achieving sustainable energy?**
- **What are the consequences for early-warning systems (national, regional and global)? Which systems exist? What is their role? How could these be applied?**



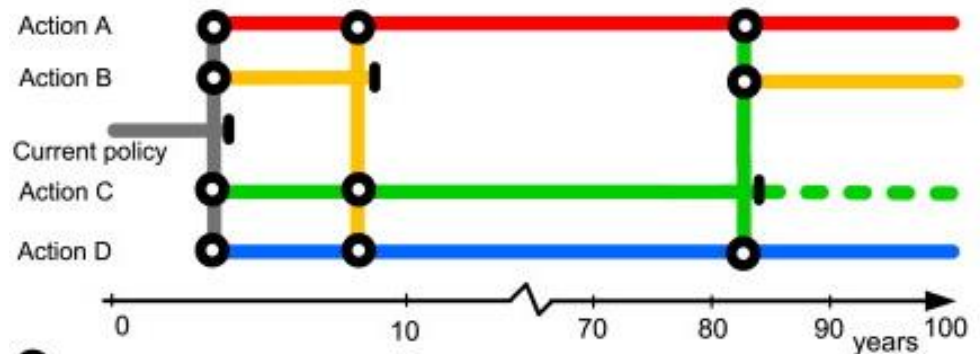
## Pathways to Sustainable Energy: Policy & Technology Options to Achieve Sustainable Energy

11:00-12:30, 14 June 2017

Workshop

### Discussion Starter: What are adaptive policy pathways?

- The authors of DAPP (Dynamic Adaptive Policy Pathways) approach state, that **“a pathway is a sequence of policy actions to reach specified objectives”**
- **What is meant by „sequence of policy actions“?** A portfolio of **potential policy actions** and **rules of their application** in future situations – in any case it means generation of **concrete dynamic energy policy option**



# Target Definition: Sustainable Energy

Draft: 3 Components

ENERGY



**Energy Security**

- Supply to meet demand (but differing conceptualisations)
- ...

- Energy affordability
- Jobs
- Health
- ...

**Sustainable Energy**

- Air pollution control
- Climate commitments
- ...

**Quality of Life**

**Environmental Sustainability**

# Energy Security

As a component to conceptualize sustainable energy



## ENERGY

- Qualitative / Quantitative description
  - Final energy intensity (SDG7)
  - Share of RE (SDG7) (environmental sustainability?)
  - Investment requirements (SDG7)
  - Energy imports and exports
  - Energy prices (oil price)

Other important

- Indicators
- -qualitative aspects ?

# Environmental Sustainability

As a component to conceptualize sustainable energy



## ENERGY

- Qualitative / Quantitative description
  - Carbon intensity (SDG13)
  - Carbon budget (temperature change)
  - Water use of energy sector (SDG6)
  - Pollutants (SDG9)

Other important

- Indicators
- -qualitative aspects ?

# Quality of Life

As a component to conceptualize sustainable energy



## ENERGY

- Qualitative / Quantitative description
  - Energy prices (end-consumer: electricity, heating, cooling, transport)
  - Food prices / consumption (SDG2)
  - Energy access (energy use?) (SDG7) (energy security?)

Other important

- Indicators
- -qualitative aspects ?