

## Overview

WP3: From 2023 month ~10 to 2025 month ~10

RQ: What are the climate risks of a future renewable energy system?

WP1 Knowledge status of climate risk in energy systems

WP2 Identify climate-related hazards relevant for the energy system

WPs and tasks	2022		2023				2024				2025				2026	
	q3	q4	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3	q4	q1	q
WP1 Knowledge status ofclimate risk in energy systems													0 0			
T. 1.1: Systematic literature review														100		
T. 1.2: Workshop #1													, ,	0		
T. 1.3: Reporting																
WP2 Identify climate-related hazards relevant for the ener	gy sy	stem	1										10 0			
T. 2.1 Workshop #2														10		
T. 2.2 Establishing the knowledge basis																
T. 2.3 Develop tools to assess compound-events																
T. 2.4 Reporting																
WP 3 Model climate risk of the energy system																
T. 3.1 Workshop#3-#5 user cost	>	T. 3.	<b>1</b> Wo	rksh	ops	impa	cts c	hain	s ind	licato	ors					
T. 3.2 Survey on climate risks and adaptation acceptability	•	T. 3.	<b>2</b> Re	giona	alised	l mo	dellii	ng of	ene	rgy s	yste	m ar	d co	nnec	ted	
T. 3.2 Modelling	>	T. 3.	<b>3</b> Sui	vey	clima	ate ri	sks f	utur	e rer	newa	ble e	nerg	gy sy:	stem		
T. 3.3 Reporting	•	T. 3.	4 Clii	nate	risk	mod	lel er	nergy	/ sce	nario	s in	dialo	gue			
WP 4 Include climate risk in energy models																
T. 4.1 Select energy models																
T. 4.2 Test selected energy models																
T. 4.3 Workshop#6																
T.4.4 Reporting																
WP 5 Climate change adaptation strategies													9 .			
T. 5.1 Sum up climate risks																
T. 5.2 Develop adaptation proposals										33 3 3						Ì
T. 5.3 Workshop #7										4				150		
T. 5.4 Analyse adaptation acceptability										,				100		
T. 5.5 Reporting	0												9	70		

WP 3 Model climate risk of the energy system



## WP3

WP1 Knowledge status of climate risk in energy systems WP2 Identify climate-related hazards relevant for the energy system WP 3 Model climate risk of the energy system Workshops on developing impacts chains and suggesting relevant indicators Regionalised modelling of the Norwegian energy system and connected energy systems survey to (i) public government, (ii) energy companies, and (iii) private households of what they think about climate risks

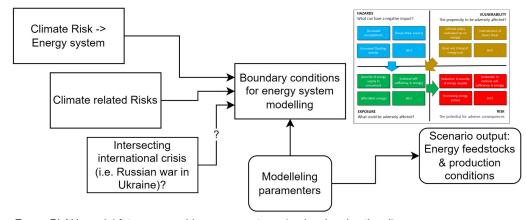
- **T. 3.1** Workshops on developing impacts chains and suggesting relevant indicators (WNRI, AAU).
- T. 3.2 Regionalised modelling of the Norwegian energy system and connected energy systems in the selected variation of scenarios reflecting the relevant risk situations (AAU).
- T. 3.3 Conduct a survey to (i) public government, (ii) energy companies, and (iii) private households of what they think about climate risks related to a future renewable energy system and what should be done to reduce such risks (WNRI).
- **T. 3.4** Develop the climate risk model and present various energy scenarios in dialogue with the users (AAU, WNRI).

## The WP3 modelling...

three modelling loops

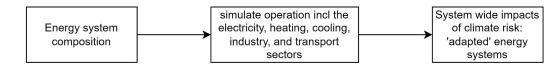
## loop 1

Dynamic model: Scenarios for climate risks of a future renewable energy system



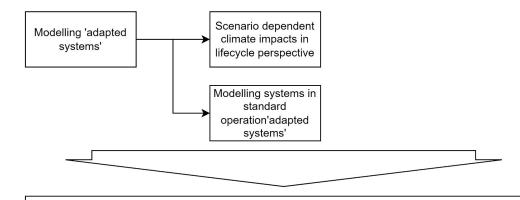
loop 2

EnergyPLAN: model future renewable energy systems (regional and national) including all energy sectors with a strong focus of cross-sectorial technologies and smart energy systems



loop 3

Life cycle impact of scenarios, evaluating the contribution to the 1.5 degree °C target





Evaluate recilience of different energy systems