

Paris Session 2022



Applicability of fairness norms ? Assessing Fairness in 2023 Winter supply crisis

POWER SYSTEM ENVIRONMENTAL PERFORMANCE SC C3

Electric solidarity – Question 1.20

GOUTALAND Antoine, France



Winter 2023: from social impacts to fair management

- **Causes: two independent causes for failing supply in French system**
 - Geopolitical threat to cut off gas supply
 - Maintenance on nuclear production park delayed in 2022/2023 due to Covid
- **Preserving the grid from black-out has major social impacts**
 - Shortcuts: Mean Value of Lost Load is 20,000 Eur/kWh in France based on I/O simulations
 - Rationing and restrictive measures impacts economic activities, social relations & personal health

	parameters	functions	
		action	fairness
planning doctrine (invest.)		X	
tariff equalization (distance)			X

- **Fairness management**
 - Historical “tariff equalization” principle: consumers are responsible on consumption, not localization

Question

Group Discussion Meeting

How to preserve fairness in supply crisis mitigation ?

Winter 2023: assessing fairness in crisis mitigation measures

	action framing	allocation rule	Suh' matrix		
Rationing	imposed centrally	X		action	
	self-sufficiency	X	rationing	X	
Price-based	(defined by allocation)	dynamic tariff		action	fairness
	(defined by allocation)	curtailment program	price signal	+/-	-/+
General averages rule	designed by a legitimate authority	sharing losses based on "what is saved"		action	fairness
			legitimate authority	X	
			general averages		X

conclusion

- Further research will test if implementing fairness norms can be given by:**
- 1. designating a legitimate authority responsible for pursuing action**
 - 2. designing a allocation authority responsible for investigating heterogeneous values (combining expertise & participation)**