



Voluntary agreements with White Certificates as a hybrid policy instrument

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Energy efficiency is addressed by:

- › Green paper on energy efficiency: 20% by 2020
- › Jan 2008: 20/20/20 targets by 2020
- › Directive on energy end use efficiency and energy services: 9% in 9 years after implementation
- › Action Plan to improve energy efficiency in the European Community. It supports:
 - White Certificates
 - Long term agreements
- › Why residential sector? 30% cost effective savings with correct policies (EC 2006)



White Certificates

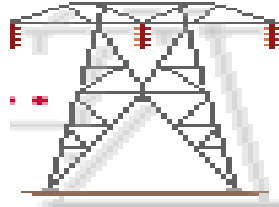
✓ **Great Britain**

✓ **Italy**

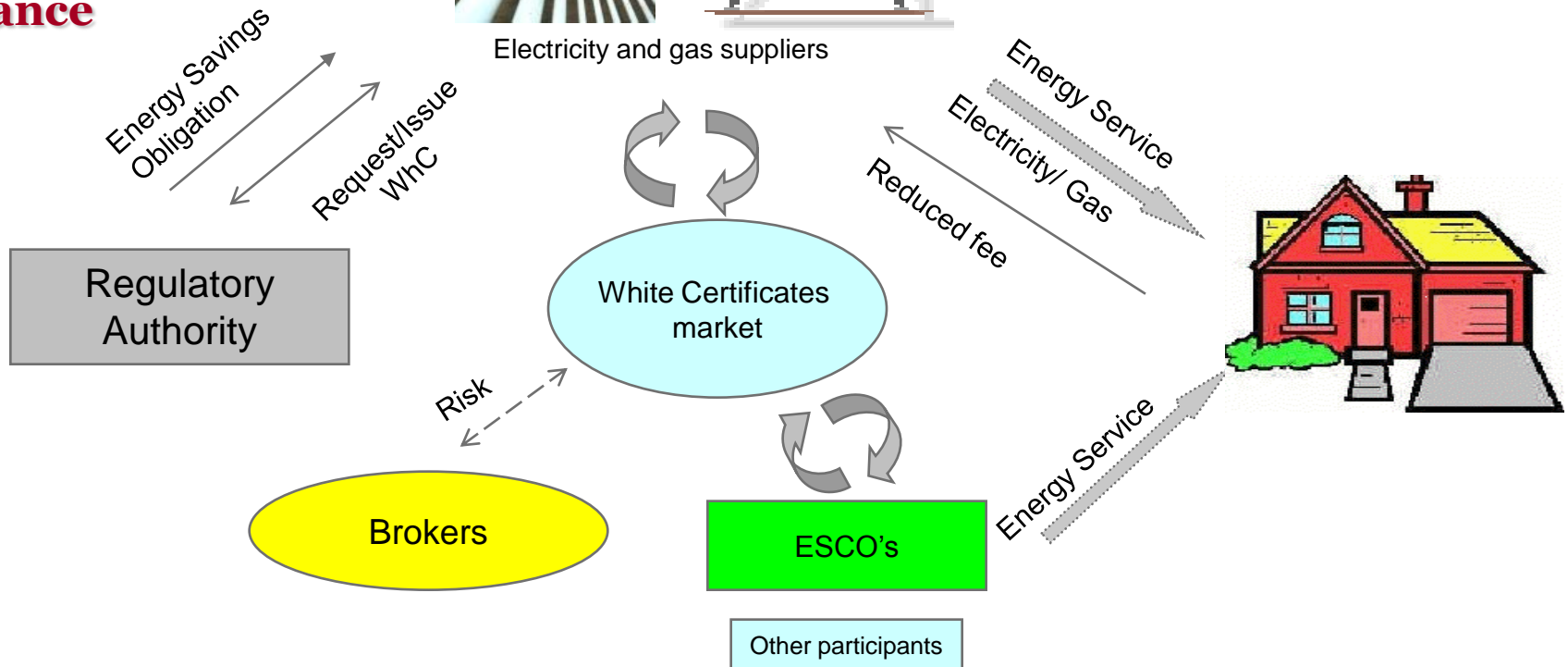
✓ **France**

✗ **the Netherlands**

? **Poland**



Electricity and gas suppliers



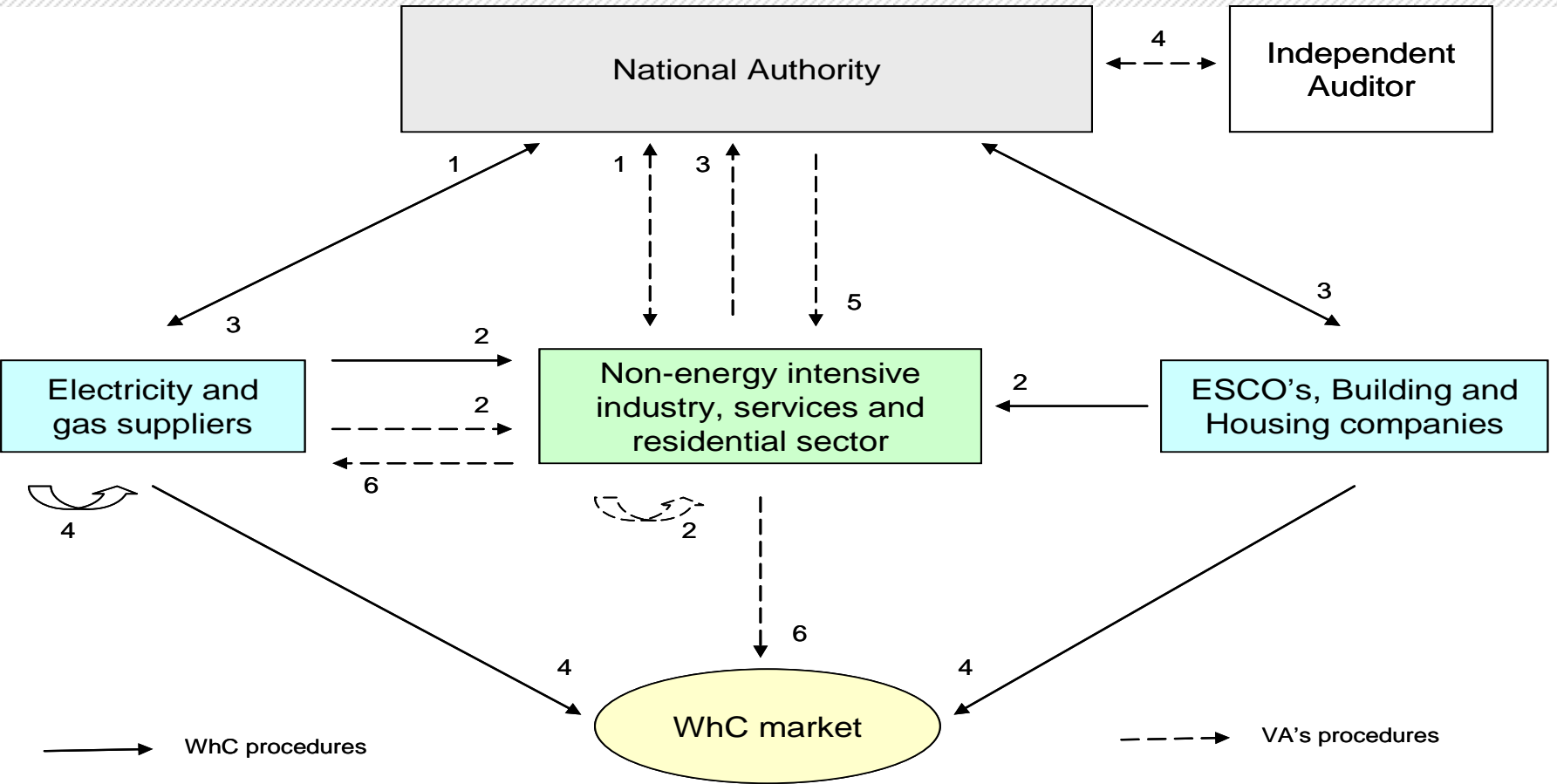
Experiences from the UK: Low hanging fruits first, so mainly CFL's and insulation. No incentives for more expensive or innovative projects. Financing projects by WhC selling is not yet visible...



- › EU Commission distinguishes between: a) negotiated agreements, as bilateral agreements between authorities and market players that have an obligatory character of fulfilling the obligations set and b) unilateral commitments by market players. (Bertoldi and Rezessy 2007)
- › E.g. LTA's and EU Greenlight programme, which both address middle and small size companies, services, and the residential sector. Other agreements aim at diffusion of energy efficiency goods (manufacturers)
- › The VA scheme we examine is an agreement between public authorities and the participating sectors (light industry and services), where the latter commit themselves to a relative target for energy efficiency improvement
- › Participants in this VA can be exempted from a percentage of their tax burden if they fulfil their target by the end of the period



- › Mandatory (*WhC*)/Voluntary (*VA*) → **Complementary schemes**
- › Same policy context (energy efficiency) → **easy target setting**
- › Obligated parties: **Electricity and gas suppliers (*WhC*)**
- › Eligible parties: **Middle sized companies, ESCO's, manufacturers of energy efficiency equipment, building companies (*WhC and VA*)**
- › Timing: **5 years periods (3-5 *WhC* and 5-10 *VA*)**
- › Accounting: **Baseline and credit scheme (*WhC and VA*)**
- › Cost recovery: **Tax exemptions (*VA*) or selling surplus WhC (*WhC and VA*)**
- › Technologies: **White and Brown appliances, energy management and CFL's (*WhC*), innovative goods (*VA*)**



- 1. Target setting and baseline definition
- 2. Projects implementation
- 3. Monitoring and issuance of WhC
- 4. Trade of WhC and/or banking

- 1. Target negotiation and ECP report
- 2. Projects implementation
- 3. Reporting and monitoring
- 4. Verification from auditor
- 5. Tax exemption (optional)
- 6. Selling WhC (market or bilateral)



Transaction costs

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Market research and
ECP report

Energy Conservation Plan (VA) – Search for partners (WhC, VA) – Access to information (VA) – Negotiations with suppliers (WhC, VA) – Persuasion (WhC, VA)

Project
implementation

Study, engineering, equipment, installation, operator training (WhC, VA) – Contracts with third parties (VA) – Decision process (WhC, VA 1-2% of total investment)

Reporting,
monitoring, issuing
WhC

Auditing, ex-ante verification (WhC) – Random quality checks (WhC) – Annual reporting (VA) – Energy Management System (VA) – Energy Monitoring Scheme (WhC, VA 1% of investment – Issuance of WhC (WhC)

Trading WhC

Contracting for bilateral trade (WhC), Commissions for financial intermediaries (WhC), training staff for trading (WhC)



- > Double counting: claiming savings for both WhC and VA
- > *Solution*:
 - VA require companies to invest to measures with longer payback period (3-4 years)
 - WhC pre-approved technologies, including low hanging fruits
- > *Solution* for additionality for WhC and VA:
 - BaU_{WhC} = Normal trend (autonomous improvement 1%)
 - BaU_{VA} = Normal trend autonomous improvement 1%) – WhC savings (specific measures)

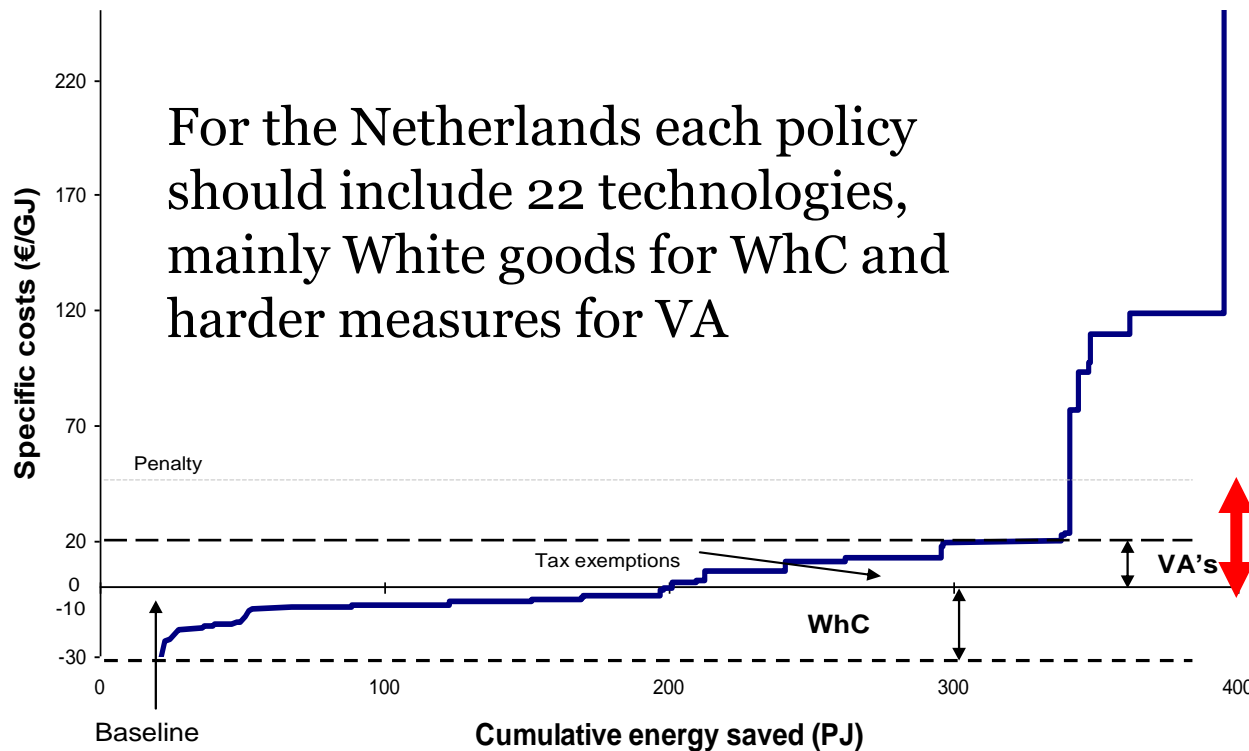
In other words, VA additionality goes beyond the minimum savings from low hanging fruits under WhC obligation




Baseline example

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- › Conservation Supply Curves with specific costs
- › Cost-effective measures below zero price suitable for WhC
- › Cost-effective measures between zero price and value of tax exemptions for VA



Types of projects preferred shift, if surplus WhC prices received by VA participants are expected to be higher than tax exemptions. Maybe more projects realized even at higher cost to the point of expected WhC price

	WhC	Voluntary agreements	WhC/VA's
Effectiveness			
Reduction of GHG emissions	x	+	↑
Security of supply	+	x	↑
Dynamic effectiveness	x	+	↑
Efficiency			
Low compliance costs	+	+	↑
Low Transaction costs	-	-	↓
Low administrative costs	-	+	?
Flexibility in exogenous changes	+	+	↑
Innovation process			
Invention/ Innovation/ Diffusion of new technologies	x	+	↑
Diffusion of existing technologies	+	x	↑
Impacts on society			
Political acceptability	x	+	↑

+ - x Positive/ Negative/ Neutral impact on criterion

↑ ↓ Strong positive/ negative added value of integrated instruments

? Uncertain effect dependant on design

↑ ↓ Minor positive/ negative added value of integrated instruments



Thank you for your attention

For more information, please contact:

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