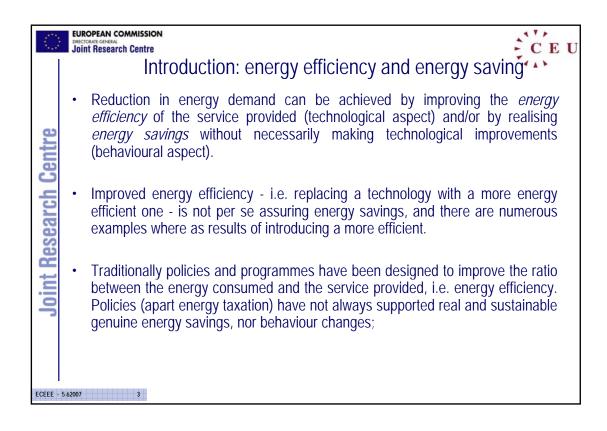
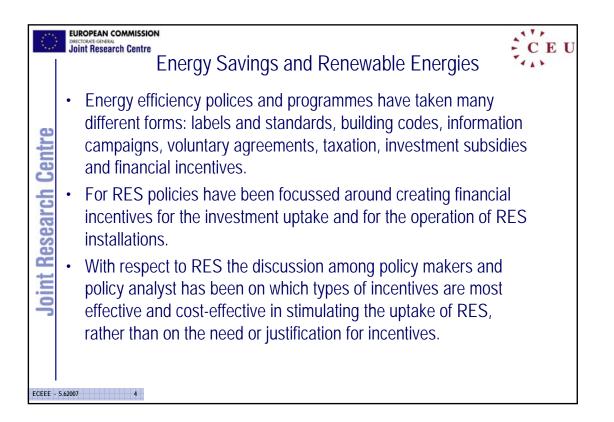
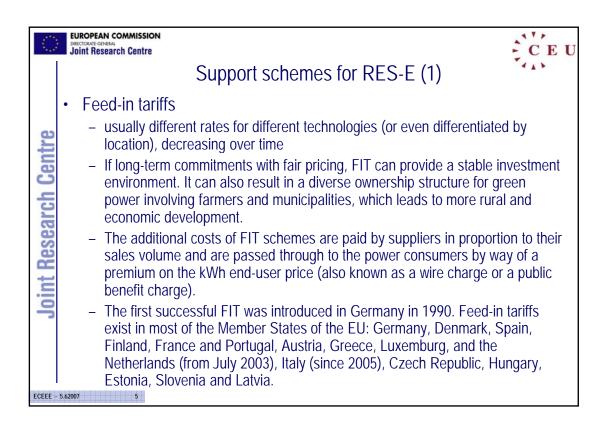
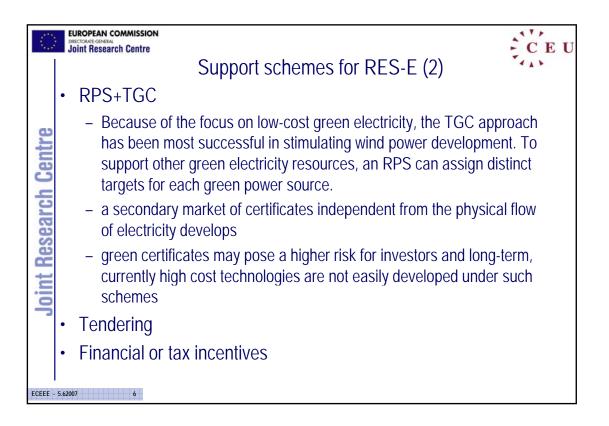


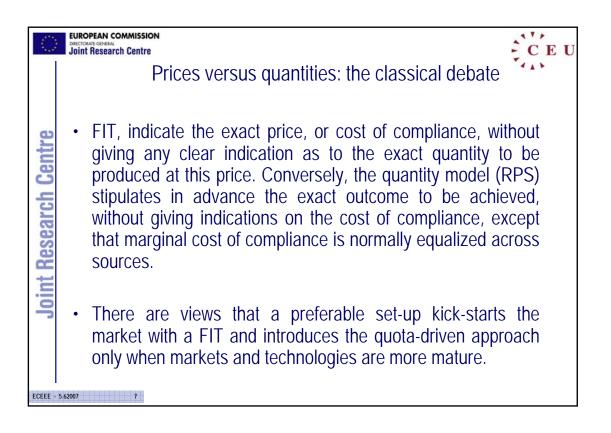
	EL DR JO	JROPEAN COMMISSION Int Research Centre C E U
re		Structure and content of the paper
	•	Review of major RES support schemes: energy efficiency and energy savings need support schemes following similar logic and operational principles;
rch Cent	•	Saving quotas coupled with tradable certificates are being successfully introduced for energy efficiency. The introduction of an equivalent FIT for energy savings in electricity does not exist yet;
Joint Research Centre	•	The paper discusses the main theoretical and practical issues involved in establishing a FIT for energy savings (discussion limited to electricity).
	•	The paper places the discussion in the broader context of rewarding energy efficiency only or rewarding genuine energy savings, and strongly advocates for giving incentives to energy savings rather than strictly energy efficiency.
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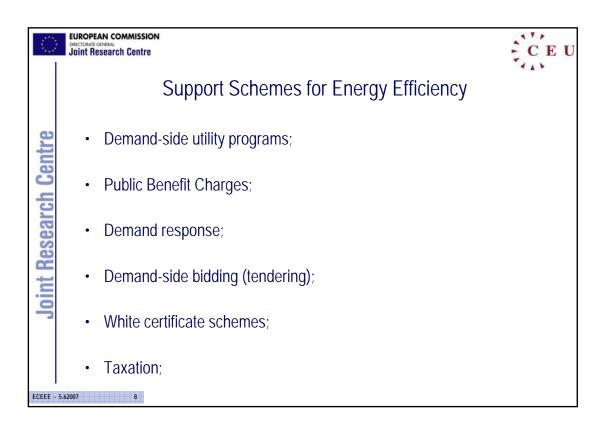


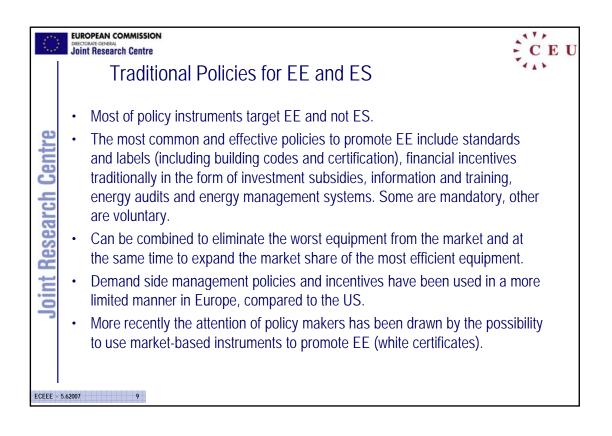




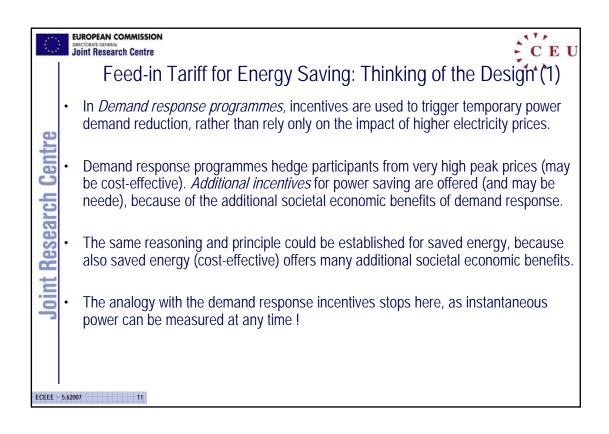




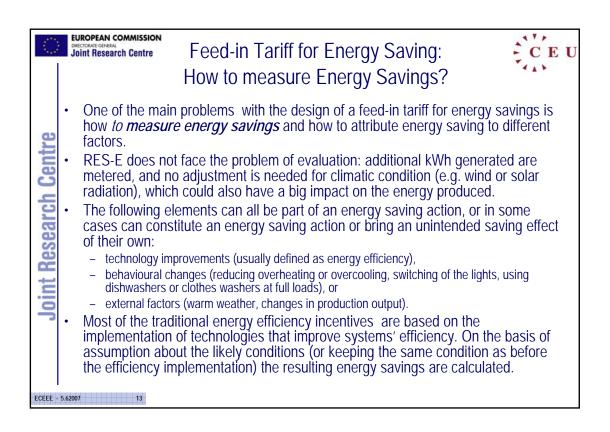




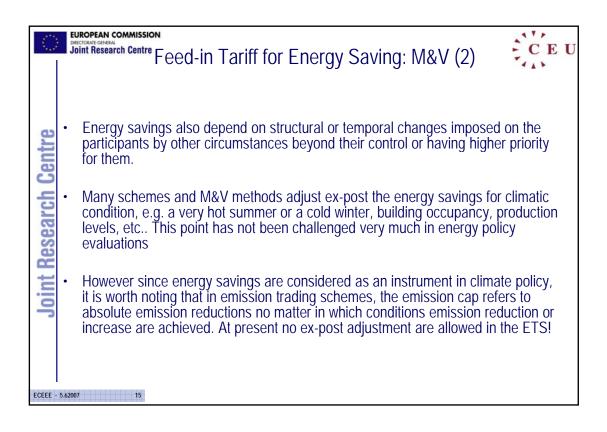
	EUR Directo Join	OPEAN COMMISSION CMATCOREAL It Research Centre	CEU
		'Feeding in' for Energy Savings	4.4.4
	•	Recognise energy savings as a <i>virtual source of energy</i> (among the che and certainly the cleanest);	eapest
entre	•		and
<b>Joint Research Centre</b>	•	Example of behavioural savings are: the user deciding to switch off equip decrease/increase the set temperature point ,r decrease the size of equip and finally dispose of some equipment.	oment, pment
<b>Joint Re</b>	•	Rather than trying to 'punish' consumption (and inefficiency) with an ene tax, public money can be used to 'reward' and give incentives to energy as a result of technology implementation, or as a result of change in beh	saved,
	•	The core challenge is how to create an 'automatic' FIT based on a unit o energy saved, similar to the FIT for RES-E (reward for unit of electricity produced).	f
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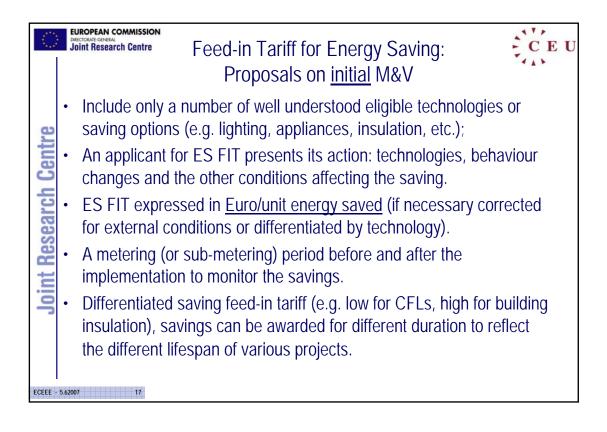
1					
Research Centre	Feed-in Tariff for Energy Saving: Thinking of the Design (2)				
	<ul> <li>In <i>demand-side bidding</i> authorities calls for 'bids' from energy saving projects that will deliver energy savings to reach a national or regional energy saving target.</li> </ul>				
	<ul> <li>An feed-in for energy savings however is not necessarily linked to a quantified energy saving target;</li> </ul>				
it Resear	<ul> <li>A feed-in for energy saving would establish a pre-defined amount of money to be attributed to each unit of energy saved (even if differentiated by technology), rather than rely on a tendering process.</li> </ul>				
Joint	<ul> <li>In this respect a feed-in for energy savings can be considered a performance-based subsidy, whereby projects are awarded based on their performance</li> </ul>				
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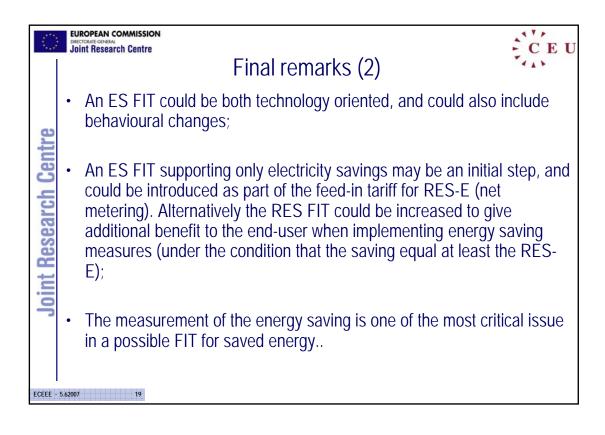
$\langle 0 \rangle$		UROPEAN COMMISSION BIOTA Research Centre Feed-in Tariff for Energy Saving: M&V (1)		
<b>Joint Research Centre</b>	•	Monitoring and Verification (M&V) protocols: assessment of the energy saving due to the technology or technique implementation;		
	•	Savings are evaluated either <i>ex-ante</i> by substituting an existing technology with a more efficient one and keeping all the other system conditions the same (size, usage, external conditions such as weather, etc.) or <i>ex-post</i> , by doing some metering or energy analysis and again adjusting the results in order to compare consumption at the same system conditions;		
	•	Examples of the ex-ante saving evaluations are the savings calculations for CFLs or appliances in the White Certificates Schemes in Italy, France and in the Energy Efficiency Commitment in Great Britain.		
	•	The major problems with ex-ante evaluation are the threat of partial realisation of savings and poor additionality. For instance, an ex-ante assessment may fail to assess real energy savings, as one consumer may replace an existing appliance with a larger one (even though more efficient appliance) or a subsidised or free given-away CFLs never get installed, resulting in reality in zero energy saving.		
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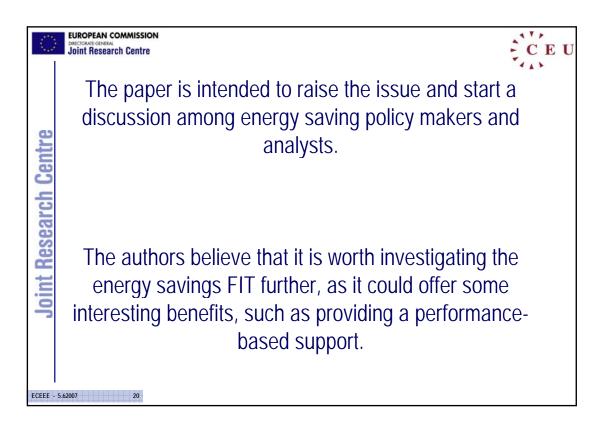


0	EUROPEAN COMMISSION Joint Research Centre Feed-in Tariff for Energy Saving: M&V (3)	CEU		
Centre	• When energy saving are evaluated against a reference situation - which consumption of the house, building or plant for the previous period, (e.g. previous year or averaged over the three previous years) - there are a nu situations where energy consumption is decreased because of an extern change that distorts the comparison of the post-retrofit situation with the reference scenario.	could be the umber of nal		
oint Research Centre	<ul> <li>An example could be children leaving their parent house, or all occupant a job outside the house and thus leaving the house empty for long time ( opposite situation where someone starts working from home, using elect heat all day).</li> </ul>	or the		
Join	A key question is whether it is correct to award this type of 'unintended' e savings and penalise other situation (e.g. house occupied for longer peri	energy ods).		
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	EUROPEAN COMMISSION DEECTORATE-GENERAL Joint Research Centre		Final remarks (1)	CEU
Joint Research Centre		support grante	Ild establish a strong correlation between the a d and the <i>result of the action</i> (savings), depart ent logic of investment-based subsidies and espaced scheme.	ing from the
		and produce g	ensure that energy efficiency measures really enuine additional savings and that the implement in place for a reasonable number of years.	
	•		fer long-term support and certainty on the mai cy technologies.	rket for
	•	potentials avail (e.g. incentives high social valu	be tailored to reflect the technical and econor able in the various end-use sectors and techn s higher for project associated with longer PBF ue) and the possibility to gradually phase it out luration by type of measure.	ologies ? or with
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$\bigcirc$	EUROPEAN COMMISSION Descroare conserval Joint Research Centre	É U			
	Feed-in once, feed-in twice: combining RES FIT and ES FIT	Г			
1 Centre	• Reward with a 'combined' FIT only the net metering, i.e. electricity minus own electricity consumption over a certain period (example over a full year).				
<b>Joint Research Centre</b>	• In this case an existing RES-E feed-in tariff would also cover energy saving, and with the same amount of support for the achieved RES-E generation and an equivalent energy savings.				
Joir	• An interesting option would be to increase (e.g. double) the feed- in tariff to reward also the additional energy saving, but still reward the RES-E production <i>only if</i> equivalent savings are implemented.				
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