

Bari, 12 Novembre 2012

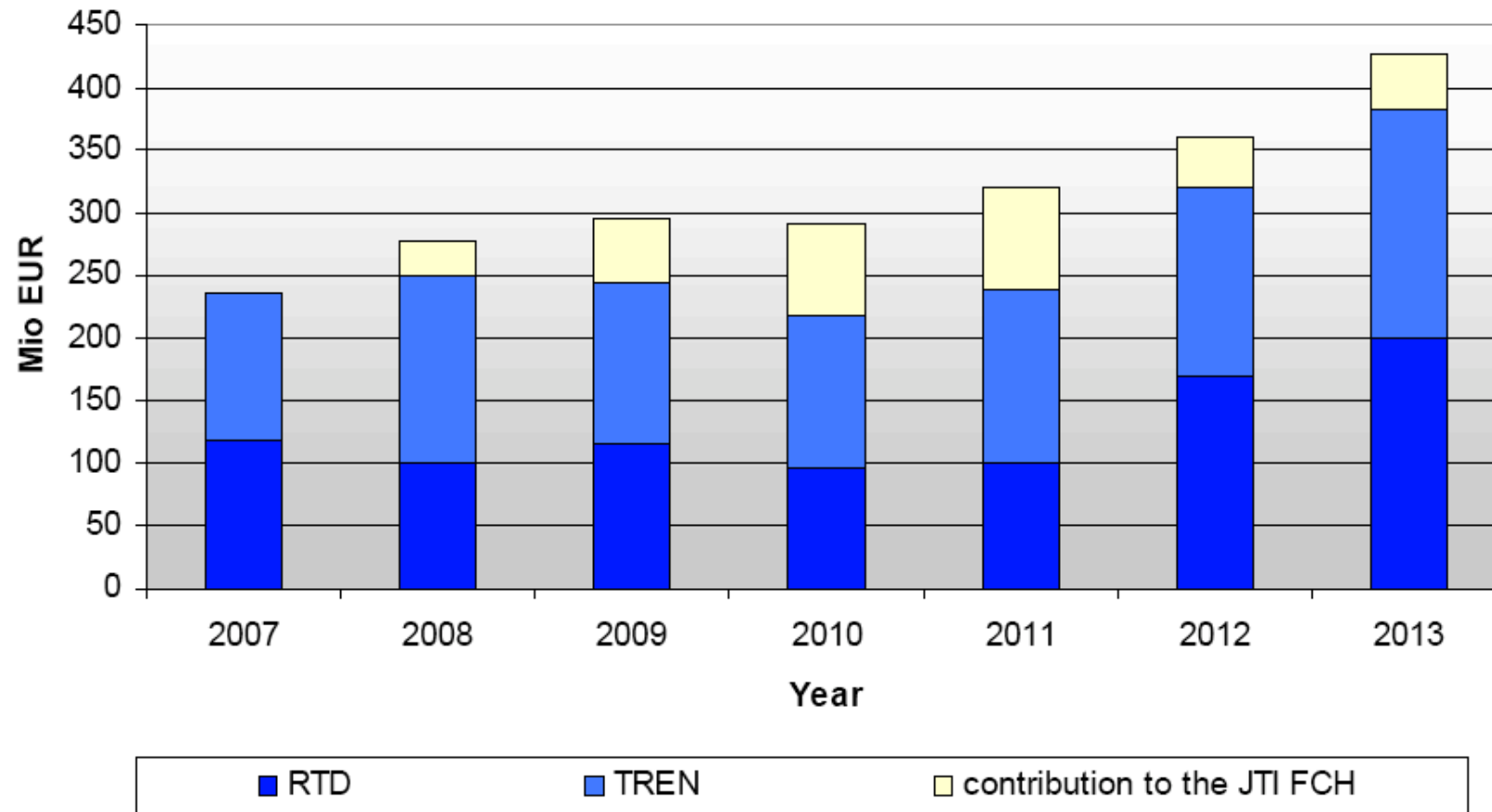
The 2013 FP7 Smart City call

Giuseppe Zollino – Università di Padova – Consorzio RFX
Italian national Delegate in the FP7 ENERGY Committee

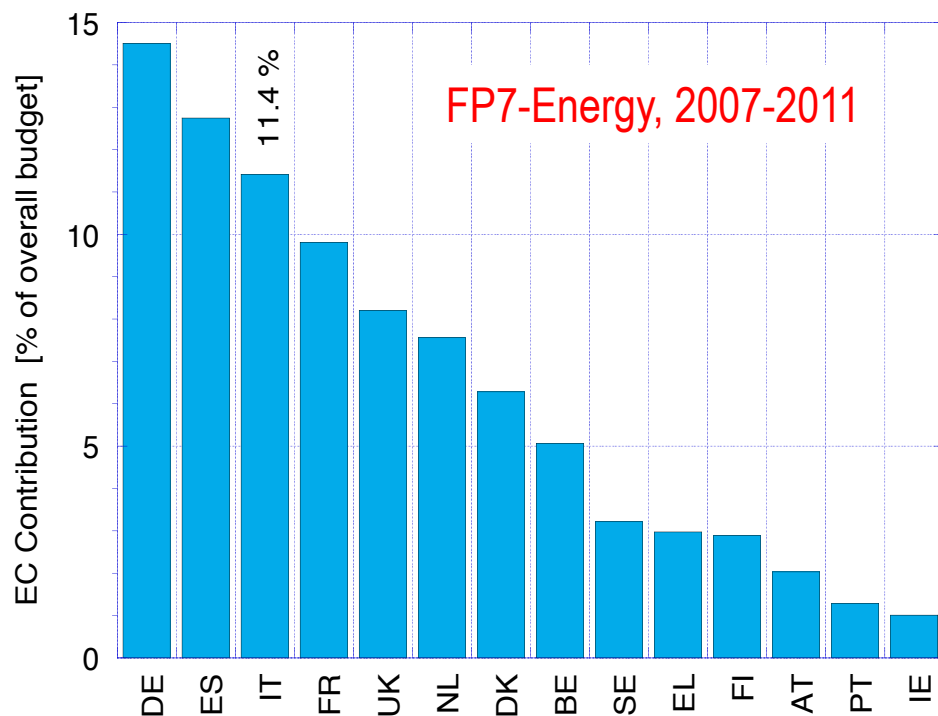


Budget annuale per il tema Energia del FP7

Annual budget of the FP7 Energy Theme

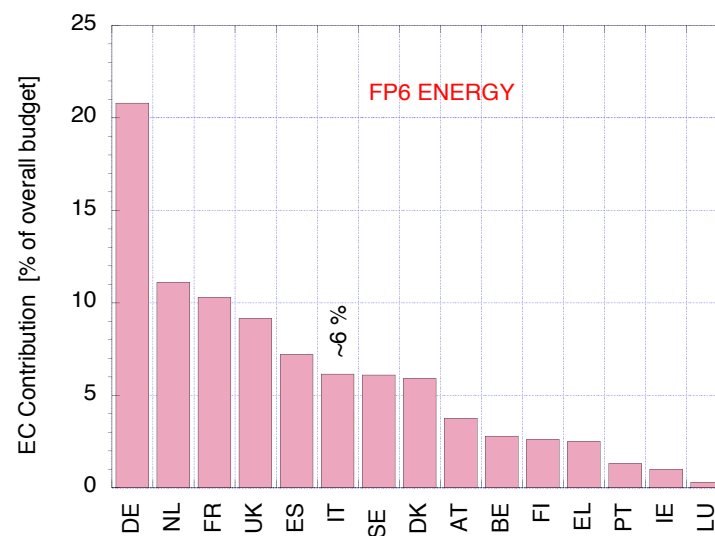


La partecipazione italiana al tema Energia del FP7



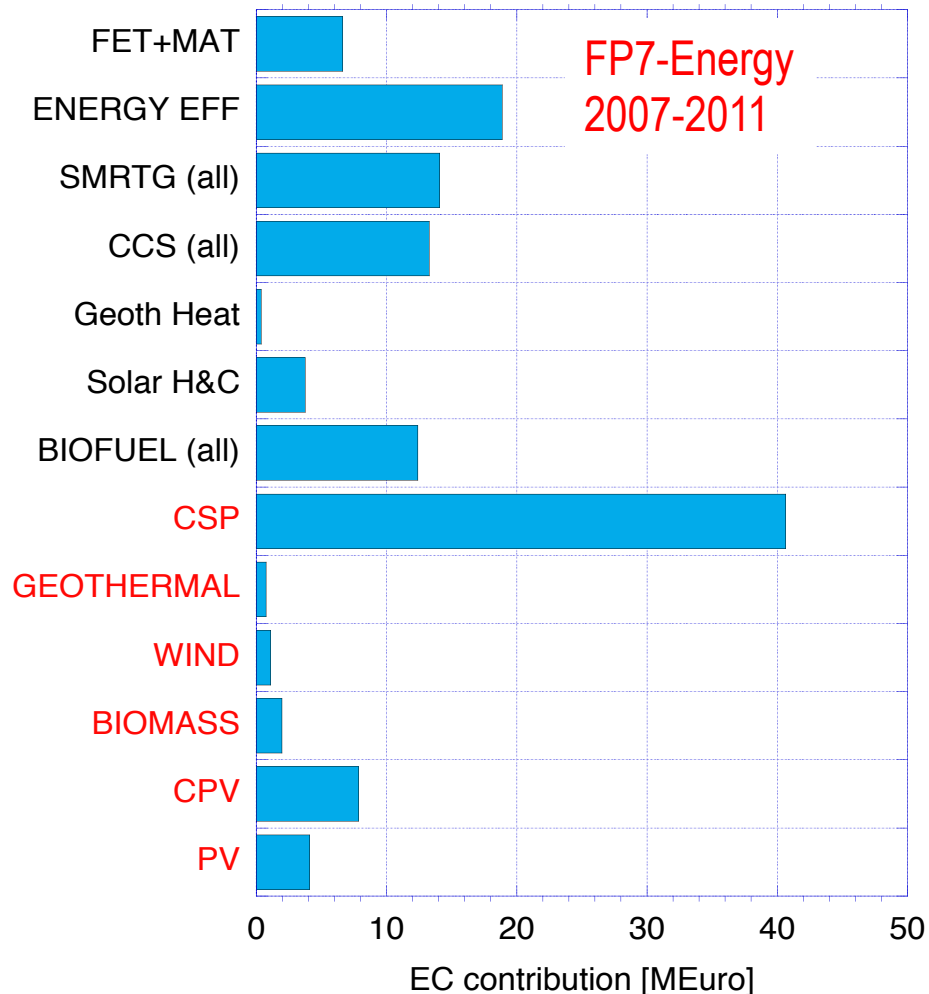
Per i topic Energia del 6° PQ, quota assegnata a partecipanti italiana ~6% del budget disponibile.

- Nel quinquennio 2007-2011, ai 27 PM assegnati in tutto ~1100 M€;
- a partecipanti italiani ~127 M€ (11.4%); 1/3 per attività di ricerca (DG-RTD), 2/3 per dimostrazione (DG-ENER);
- Italia al 3° posto tra i PM;
- Per tutto il 7° PQ, la quota ai partecipanti italiani è in media ~8%; il tema Energia è quindi un'eccezione positiva;



Finanziamento comunitario per area tematica

Contributo comunitario (in M€) a partecipanti Italiani, coordinatori o partner di progetti di RST o dimostrativi (Grandi imprese, PMI, Enti di Ricerca, Università), suddivisi per area tematica



PV	Elettricità da fotovoltaico piano
CPV	“ fotovoltaico a concentrazione
BIOMASS	“ biomasse
WIND	“ fonte eolica
GEOHERMAL	“ sistemi geotermici avanzati
CSP	“ solare termodinamico
BIOFUEL	Bio-combustibili
Solar H&C	Riscaldamento e/o raffrescamento da fonte solare
Geoth Heat	Riscaldamento da fonte geotermica
CCS	Tecnologie per il carbone pulito e per la cattura ed il sequestro geologico di CO2
SMGR	Reti elettriche intelligenti (Smart Grids)
ENERGY EFF	Misure di efficienza energetica (inclusi programmi CIVITAS e CONCERTO)
FET+MAT	Tecnologie Emergenti per il Futuro e Materiali per l'Energia

Bando Smart Cities 2012

- ◆ Saranno finanziate proposte che vedono tra i partner:
 - **Genova** e **Firenze**, per il topic *Strategic sustainable planning and screening of city plans*;
 - **Genova**, per il topic *Large scale systems for urban area heating and/or cooling supply*;
 - **Milano** e **Genova**, per il topic *Demonstration of nearly Zero Energy Building Renovation for cities and districts*.

- ◆ La lista di riserva include 8 proposte, nelle quali sono partner, in ordine di classifica, **Cesena**, **Bari**, **Venezia** e **Torino**.

- ◆ Hanno partecipato in proposte che però non hanno superato la soglia anche le città di **Modena**, **La Spezia**, **L'Aquila** e **Sorrento**.

- ◆ In tutto ai partner italiani è andato il **12.3% del budget disponibile**.

Le *European Industrial Initiatives* (EII) del SET plan

Fabbisogno stimato (UE + Paesi Membri + Industria)
per il periodo 2010-2020

EII and Joint Undertakings	Fabbisogno totale (pubblico&privato) mld Euro
Solar (fotovoltaico+termico)	16
Wind	6
Grid	2
CCS	11-16
Bioenergy	9
Sustainable Nuclear (fission)	5-10
Smart Cities and Communities	10-12
Hydrogen and Fuel Cells	5-6
Fusion for Energy	10-11
Totale	74-88

Coordinated Call FP7-Smart Cities-2013

Publicazione: 10 luglio 2012

Scadenza: 4 Dicembre 2012

Budget indicativo: 219 MEuro (114 da Energy + 95 da ICT)

Activity/ Area	Topics called	Budget (MEur)
ICT – Information and Communication Technologies		
FP7-ICT-2013.1.4	A reliable and secure Internet of Things for Smart Cities	20
FP7-ICT-2013.6.2	Data Centres in an energy-efficient and environmental friendly Internet	20
FP7-ICT-2013.6.4	Optimising Energy Systems in Smart Cities	40
FP7-ICT-2013.6.6	Integrated personal mobility for smart cities	15
Energy		
Activity Energy.7	7.1.1: Development and validation of methods and tools for network integration of distributed renewable resources	24
	7.3.1: Planning rules for linking electric vehicles (EV) to distributed energy resources	
	7.3.2: Enhanced interoperability and conformance testing methods and tools for interaction between grid infrastructure and electric vehicles	
FP7.ENERGY.2013.8.8.1	Demonstration of optimised energy systems for high performance-energy districts	100

Coordinated Call FP7-Smart Cities-2013

- ◆ Demonstrate, **at the level of cities or districts**, an **innovative integrated energy system**, optimised both in terms of increase in energy efficiency and CO₂ reduction;
- ◆ Balance of supply-side measures based (high share of renewables) and demand-side measures to reduce consumption, leading to a **good business case for replication**;
- ◆ Address all of the following 3 aspects through an integrated approach:
 - **Retrofitting** of a district towards zero energy buildings (**mainly residential buildings**),
 - Innovative solutions for the **medium and low voltage electricity distribution grid**,
 - Innovative solutions for **district heating and cooling** energy supply
- ◆ Activities based on a convincing **city and mobility planning**, completed at an earlier stage. **Planning costs not eligible**;
- ◆ Sound **business model of all measures envisaged in the project**, assessing economics and benefits for industry and the customers and end-users;
- ◆ Maximum requested EU contribution per project must not exceed **EUR 30 million** (i.e. 3 projects should be selected)
- ◆ For **retrofitting of a district towards zero energy buildings**, unit cost is fixed at EUR 100 /m² eligible costs and thus EUR 50 /m² European Union contribution.

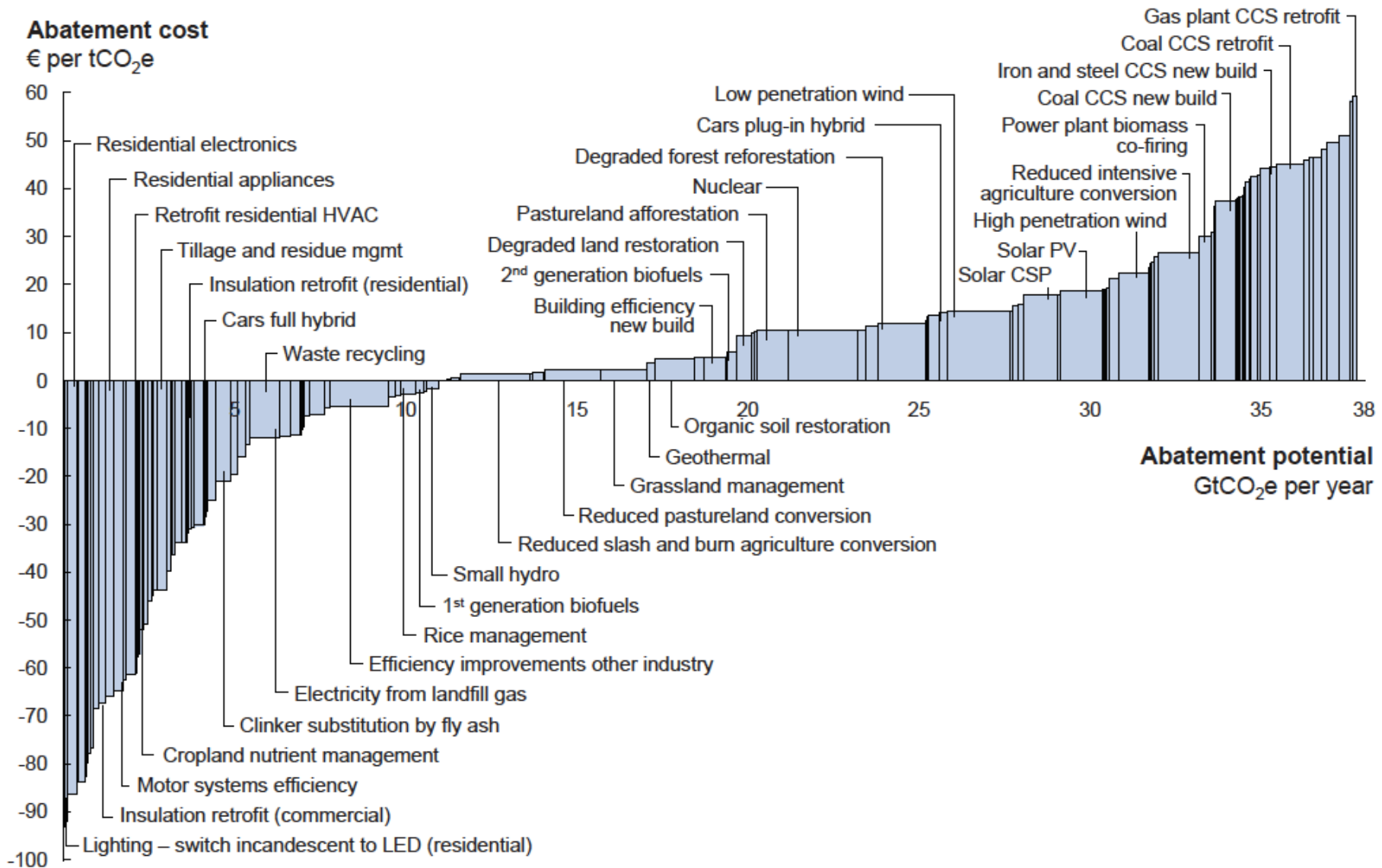
Topic ENERGY.2013.8.8.1: Demonstration of optimised energy systems for high performance energy districts

- ◆ Integration of topics that relate to Smart Cities and Communities in the **energy, transport and ICT** areas;
- ◆ Energy-related topics such as:
 - **energy efficiency,**
 - **energy (electricity, heating and cooling) networks,**
 - **renewable energy production**
 - **urban planning.**

with **innovative solutions at the interfaces of these challenges as well as with other urban issues in the areas of ICT and transport**
- ◆ **Cross-sector Industry consortia** are invited to **take the lead** in close collaboration with cities (**1 or 2 cities for each consortium**) to devise innovative measures that accelerate the deployment of low carbon technologies;
- ◆ Financial support will be given to measures that would help cities to **substantially reduce greenhouse gas emissions** in an **innovative and integrative manner** and represent a **high replication potential**;

Implementing cost effective measures is crucial....

Global GHG abatement cost curve beyond business-as-usual – 2030



Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €60 per tCO₂e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.
Source: Global GHG Abatement Cost Curve v2.0

Call FP7-ENERGY-2013-1: Energy call part 1

Publicazione: 10 luglio 2012

Scadenza: 28 Novembre 2012

Budget indicativo: 107.5 MEuro

Challenge	Activities / Areas / Topics in this work programme	Budget [MEuro]
Renewable energies	2.1.1: High efficiency c-Si photovoltaics modules 2.3.1: Advanced aerodynamic modelling, design and testing for large rotor blades 2.3.2: Small to medium size wind turbines 2.4.1: Exploration and assessment of geothermal reservoirs 2.6.1: Design tools, enabling technologies and underpinning research to facilitate ocean energy converter arrays 2.9.1: Research cooperation and knowledge creation in the area of renewable energy with Mediterranean partner countries 2.9.2: Methods for the estimation of the Direct Normal Irradiation (DNI) 4.1.1: Innovative solar thermal façade systems	51
Renewable energies	3.7.1: Support to the sustainable delivery of non-food biomass feedstock at local, regional and pan-European level	4
Smart grids / energy storage	2.7.1: Optimisation of Water Turbines 7.2.1: Advanced concepts for reliability assessment of the pan-European transmission network 7.2.2: Advanced tools and mechanisms for capacity calculation and congestion management 7.2.4: Ensuring stakeholder support for future grid infrastructures 7.3.3: Understanding interfaces in rechargeable batteries and super-capacitors through in situ methods	24
Carbon Capture and Storage	5.1.1: Scale-up of advanced high-efficiency capture processes 5.1.2: New generation high-efficiency capture processes 5.2.1: Mitigation and remediation of leakage from geological storage 6.1.1: Combined Underground Coal Gasification and CO2 Capture and Storage	28.5

Call FP7-ENERGY-2013-2: Energy call part 2

Publicazione: 10 luglio 2012

Scadenza: 24 Gennaio 2013

Budget indicativo: 83 MEuro

Activity	Topic	Budget (MEuro)
Activity Energy.3: Renewable Fuel Production	3.2.1: Pre-commercial industrial scale demonstration plant on paraffinic biofuels for use in aviation	36
Activity Energy.7: Smart Energy Networks	7.2.3: Large-scale demonstration of innovative transmission system integration and operation solutions for (inter)connecting renewable electricity production.	45
Activity Energy.9: Knowledge for Energy Policy Making	9.2.1: European scientific multidisciplinary "think-tank" to support energy policy and to assess the potential impacts of its measures	2

Call FP7-ENERGY-2013-IRP

Publicazione: 10 luglio 2012

Scadenza: 8 Gennaio 2013

Budget indicativo: 37.5 MEuro

Challenge	Activities/ Topics in this work programme	Budget (MEur)
Integration of Research Programmes	ENERGY.2013.10.1.5: Integrated research programme in the field of photovoltaics ENERGY.2013.10.1.6: Integrated research programme in the field of wind energy ENERGY.2013.10.1.7: Integrated research programme in the field of bioenergy ENERGY.2013.10.1.8: Integrated research programme on smart grids ENERGY.2013.10.1.9: Integrated research programme on electrochemical storage ENERGY.2013.10.1.10: Integrated Research Programme in the field of Concentrated Solar Power (CSP)	35
Support to Platforms	ENERGY.2013.2.1.2: Support to key activities of the European Photovoltaics Technology Platform (TP PV) ENERGY.2013.3.7.2: Support to key activities of the European Biofuels Technology Platform (EBTP) ENERGY.2013.10.1.4: Mobilising the research, innovation and educational capacities of Europe's universities	2.5