## **Attracting Investment**





## **Changing Incentive Structures**

- Feed in Tariffs
- Renewable Heat Incentive
- Selling electricity to the grid
- CRC (and impending deadlines)
- Green Deal
- Green Investment Bank
- Land use planning framework



## **Novel sources of funding**



| Home | Development | Repairs | Tenancies | <u>Sustainability</u> | Finance | Legal | Care |
|------|-------------|---------|-----------|-----------------------|---------|-------|------|
|      |             |         |           |                       |         |       |      |

<u>Home</u> > <u>Sustainability</u>

Zero Carbon Hub proposes way for builders to pay in lieu of cutting emissions

### Carbon payments could raise £1.1 bn

08/07/2011 | By Chloë Stothart



Local authorities could set up multi-million pound funds to pay for carbon reduction measures using contributions from developing associations and house builders, under proposals unveiled this week.

The Zero Carbon Hub, a group of house builders and government representatives which coordinates the delivery of zero carbon homes, outlined the idea in a report published on Tuesday.

The funds would be paid by developers to offset any carbon emissions they could not eliminate through the building process when building zero carbon homes. All new homes must be zero carbon by 2016.



The report, based on research by Cooperative Financial Services and accountancy firm Grant Thornton, estimated that £200 million of developer contributions could be borrowed against to raise a total of £1.1 billion.

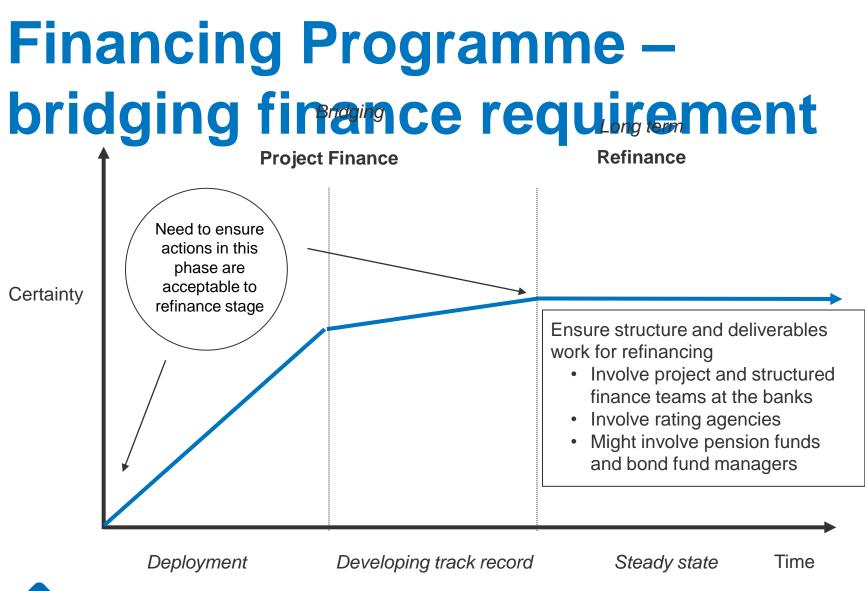
### Novel Funding Vehicles london.gov.uk

| Home This Week Priorities | Get Involved Who Runs London City Hall  |  |  |  |  |  |
|---------------------------|---|--|--|--|--|--|
| Home This week Fronties   | Get involved VVno Runs London City Hall   |  |  |  |  |  |
| Media                     | Mayor announces £70m+ green fund<br>'open for business'   |  |  |  |  |  |
| Mayor's Press Releases    | 21 MARCH 2011   |  |  |  |  |  |
| Assembly's Press Releases | The Mayor of London, <u>Boris Johnson,</u> today (Monday, 21 March) declared  |  |  |  |  |  |
| All Press Releases        | 'open for business' an innovative fund totalling at least £70 million which will<br>finance low carbon waste and recycling infrastructure. This will help make  |  |  |  |  |  |
| News Feeds                | London a world leader in finding new ways to exploit the cash value of waste,   |  |  |  |  |  |
| Video Library             | use it to generate green energy whilst creating jobs and developing valuable<br>exportable skills.  |  |  |  |  |  |
| Image Library             |   |  |  |  |  |  |
| Media Contacts            | Addressing an influential audience of senior financiers at the London Stock<br>Exchange, the Mayor announced that Foresight Group, a leading sustainable<br>asset manager, will manage the waste and recycling fund on behalf of and as |  |  |  |  |  |
|                           | part of the London Green Fund. The Foresight Environmental Fund as it will  |  |  |  |  |  |

environmental infrastructure.

which Foresight has doubled with commitments for a further £35 million from local authority pension funds and a range of other investors; Foresight seeks to leverage in an overall total of £200 million from pension funds and other private sector investors. The London Green Fund is a trailblazing initiative – the first UK fund to combine European, public and private finance to invest in

energy saving trust<sup>°</sup>





### **SEAP Process**

| THE SEAP PROCESS: PHASING OF THE DIFFERENT STEPS          |   |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| STEP  | CORRESPONDING<br>GUIDEBOOK CHAPTER                                  | TIME   |  |  |  |  |  |  |
| PHASE: Initiation   |   | >  |  |  |  |  |  |  |
| Political commitment and<br>signing of the Covenant       | Part I, Chapter 2   | Political Involvment and building  |  |  |  |  |  |  |
| Adapt city administrative<br>structures                   | Part I, Chapter 3   | support from stakeholders should<br>be seen as a continuous process.<br>Adapting city structures may occur |  |  |  |  |  |  |
| Build support from<br>stakeholders                        | Part I, Chapter 4   | at regulär Interval, when needed.  |  |  |  |  |  |  |
| PHASE: Planning phase                                     |   |  |  |  |  |  |  |  |
| Assessment of the current<br>framework (*): Where are we? | Part I, Chapter 5 + Part II   | <  |  |  |  |  |  |  |
| Establishment of the vision:<br>Where do we want to go?   | Part I, Chapter 6   |  |  |  |  |  |  |  |
| Elaboration of the plan:<br>How do we get there?          | Part I, Chapters 7, 8 & 9<br>+ Part II                              |  |  |  |  |  |  |  |
| Plan approval and<br>submission                           | -   |  |  |  |  |  |  |  |
| PHASE: Implementation pl                                  | hase  |  |  |  |  |  |  |  |
| Implementation Part I, Chapter 10                         |   | Implementation of the measures <   |  |  |  |  |  |  |
| PHASE: Monitoring and re                                  | porting phase   |  |  |  |  |  |  |  |
| Monitoring  | Part I, Chapter 11 +<br>specific guidebook to<br>be published later |  |  |  |  |  |  |  |
| Reporting and submission<br>of the implementation report  | Part I, Chapter 11 + Part III,<br>Chapters 5 and 7                  |  |  |  |  |  |  |  |
| Review  | -   |  |  |  |  |  |  |  |
|   |   | 1 year 2 years   |  |  |  |  |  |  |



### **SEAP Template**

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| 1<br>2    | B<br>Covenant<br>Of Mayors<br>Extended werey  | Sustainable Energ                               | gy Action P   | lan (SEAP                            | ) template                                   | M  | N  | 0   | P   | Q  | B  | 5      | <u> </u>     |
| 3         |   | SUSTAINA  | BLE ENERGY AC   | TION PLAN                            |  |  |  |   |   |  |  |        |              |
| 5<br>6 1) | Title of your Sustainable Energy Action Plan  |   |   |                                      | 1  |  |  |   | $( \mathbf{r} )$  | Instructions   |  |        |              |
| 7         |   |   |   |                                      |  |  |  |   | Ŭ   |  |  |        |              |
| 9         | Date off  | ormal approval Authority appro                  | ving the plan   |                                      | ]  |  |  |   |   |  |  |        |              |
| 11 2)     | Key elements of your Sustainable Energy Action Plan                                       |   |   |                                      |  |  |  |   |   |  |  |        |              |
|           | Green cells are compulsory fields   | Grey fields are non editable                    |   | l                                    |  |  |  |   |   |  |  |        |              |
| 14        | SECTORS<br>& fields of action   | KEY actions/measures<br>per field of action     | Responsible<br>department, person or<br>company (in case of<br>involvement of 3rd<br>parties) | Implementation<br>[start & end time] | Estimated costs<br><u>per action/measure</u> | Expected<br>energy<br>saving <u>per</u><br><u>measure</u><br>[MWh/a] | Expected<br>renewable<br>energy<br>production<br><u>per</u><br><u>measure</u><br>[MWh/a] | Expected<br>CO2<br>reduction<br><u>per</u><br><u>measure</u><br>[t/a] | Energy<br>saving<br>target<br><u>per sector</u><br>[MWh]<br>in 2020 | Local<br>renewable<br>energy<br>production<br>target<br><u>per sector</u><br>[MWh] | CO2<br>reduction<br>target<br><u>per sector</u> [t]<br>in 2020 |        |              |
| 16        | BUILDINGS, EQUIPMENT / FACILITIES & INDUSTRIES:   | Action 1:                                       | 1.  | 1.                                   | 1.   | 1.   | • I  | 1.  |   |  |  |        |              |
| 17        | Municipal buildings, equipment/facilities   | Action 2:                                       | 2:  | 2:                                   | 2:   | 2:   | 2:   | 1:<br>2:  |   |  |  |        |              |
|           | Tertiary (non municipal) buildings, equipment/facilities                                  |   |   |                                      |  |  |  |   |   |  |  |        |              |
|           | Residential buildings   |   |   |                                      |  |  |  |   |   |  |  |        | _            |
| 20        | Municipal public lighting<br>Industries (excluding industries involved in the EU Emission |   |   |                                      |  |  |  |   |   |  |  |        | ł            |
| 21        | trading scheme - ETS) & Small and Medium Sized Enterprises                                |   |   |                                      |  |  |  |   |   |  |  |        |              |
|           | Other - please specify:   |   |   |                                      |  |  |  |   |   |  |  |        |              |
| 22        |   |   |   |                                      |  |  |  |   |   |  |  |        |              |
| 23        | TRANSPORT:  | Action 1:                                       | 1:  | 1:                                   | 1:   | 1:   | 1:1  | 1:  |   |  |  |        |              |
| 24        | Municipal fleet   | Action 2:                                       | 2:  | 2:                                   | 2:   | 2:   | 2:;  | 2:  |   |  |  |        |              |
|           | Public transport  |   |   |                                      |  |  |  |   |   |  |  |        |              |
| 26        | Private and commercial transport  |   |   |                                      |  |  |  |   |   |  |  |        |              |
|           | Other - please specify:   |   |   |                                      |  |  |  |   |   |  |  |        | •            |
| H 4 >     | ▶ N Overall Strategy / Baseline Emission Inventory (1                                     | l) 🖉 Baseline Emission Inventory (2) 🔪 Sustai   | nable Energy Action   | Plan /                               |  |  | ]•   |   |   |  |  |        |              |



### Newcastle City Council Sustainable Energy Action Plan summary

| INTERVENTION  | UNIT         | 2005-2010 | 2010-2020 |
|---|--------------|-----------|-----------|
| CHP Biomass   | MWe          | 0         | 0         |
| CHP Large Gas   | MWe          | 0         | 0         |
| CHP Buildings Gas   | MWe          | 0         | 15        |
| Heat from Power Station   | MWth         | 0         | 0         |
| PV Domestic   | Homes        | 50        | 3000      |
| PV Non Domestic   | MWe          | 0         | 0         |
| Wind Large  | MWe          | 0         | 0         |
| Wind Medium   | MWe          | 0         | 3         |
| Wind Domestic   | Homes        | 0         | 100       |
| Solar Thermal Domestic  | Homes        | 100       | 5,000     |
| Biomass Boilers Domestic  | Homes        | 50        | 500       |
| Biomass Boilers Non Domestic                                    | MWth         | 0.1       | 1         |
| Ground Source Heat Pump Domestic                                | Homes        | 10        | 500       |
| Cavity Wall Insulation Domestic                                 | Homes        | 17,000    | 27,000    |
| Loft Insulation Domestic  | Homes        | 26,000    | 41,000    |
| Double Glazing Domestic   | Homes        | 10,000    | 20,000    |
| Solid Wall Insulation Domestic                                  | Homes        | 20        | 10,000    |
| Energy Efficient Lighting Commercial                            | 000's m2     | 0         | 0         |
| Double Glazing Commercial                                       | 000's m2     | 0         | 0         |
| Street Lighting Efficient Lamps                                 | Lamps        | 0         | 0         |
| Domestic gas use reduction by behavioural change                | %            | 5         | 10        |
| Domestic electricity use reduction by behavioural<br>change     | %            | 0         | 10        |
| Non-domestic gas use reduction by behavioural change            | %            | 5         | 20        |
| Non-domestic electricity use reduction by behavioural<br>change | %            | 0         | 10        |
| Transport fuel use reduction by behavioural change              | %            | 1         | 4         |
| Road transport efficiency improvements                          | %            | 2         | 12        |
| Replace road transport fuels with biofuels                      | 000's litres | 3,000     | 13079     |
| Replace road transport fuels with electricity                   | 000's litres | 0         | 4844      |
| Greening Grid   | %            | 0         | 20        |



### **Covenant of Mayors Support**



#### DELFT (NETHERLANDS): Cooperation with local energy utility

#### OBJECTIVE

Meeting ambitious climate goals through the establishment of a new local district heating network.

#### PROJECT IN A NUTSHELL

- -> The District Heating Company Eneco Delft Ltd, is a new special-purpose company that has built, run and maintained the new district heating system initiated by the Municipality of Delft.
- -> This company supplies an estimated 20,000 homes with space heating and hot tap water. Heat is produced by means of cogeneration and the use of low-temperature industrial residual heat.
- -> The energy utility Eneco New Energy is the mother company of the District Heating Company, owning 97 % of the shares. Eneco will build and operate the system.
- -> Shareholders owning 3 % of priority shares include: Municipality of Delft, Municipality of Midden Delfland, Eneco and three housing associations.

#### RESULTS

- → Investment costs: about € 120 million (production and distribution).
- Expected CO, emissions reduction compared to 2008 levels: min. 18,500t.
- -> Return on investment for the District Heating Company: min. 7.4% including tax measures and a national grant for the residual heat pump station.

The project was implemented in the framework of the European SESAC project and co-financed by the CONCERTO programme.

#### More info (EN): www.concerto-sesac.eu





## **ELENA (European Local ENergy Assistance)**

### **Overview**

- Spend = €15m/year NO call first come first served until the end of 2011
- *Support* = for additional personal, technical studies, preparation for tender calls & financial structuring. Investment programmes don't need to be fully defined
- Mechanism = grant which can be combined with other EU or national grants

### Criteria

- Beneficiaries = local authorities, grouping of public entities including Covenant of Mayors signatories
- Level = up to 90% of the TA costs but require 20:1 leverage
- Size of investment programme = > €50 m 1<sup>st</sup> requirement = identified investment programme contributing to EU energy & climate change objs.
- Selection process ~ 3 mths

### Anything else?

- EIB financing it is not a prerequisite to be receiving ELENA and vice versa
- BUT ELENA assistance may facilitate access to financing from the EIB or other banks



## **EIB energy investment**

#### **Overview**



- Spend = 2010 (€8.5bn) and 2011 expected increase
- *Support* = making Europe's energy supplies more sustainable, competitive and secure.
- *Mechanisms* = loans, equity/carbon funds & technical assistance
- Works through intermediates in banking sector, specialised energy agencies or ESCOs.

### Loan criteria

- *Clients* = public and private sector bodies and enterprises
- Level = lends up to 50% of capital (can be combined with other bank loans & EU grants)
- *Coverage* = energy efficiency projects cover both supply (i.e. district heating) and demand (public & private buildings). Majority of lending for renewable projects on solar and wind

### Anything else?

• ELENA good start (everything necessary to make cities' energy projects ready for EIB funding)



## **European Energy Efficiency Facility (EEE-F)**

### Overview

- Spend = €205million available May 2011
- Support = new finance instrument for providing technical assistance and investment in energy efficiency and renewable energy projects.
- *Mechanism* = investment vehicle
- Fund manager = Deutsche Bank

### Criteria

•minimum of 20% primary energy saving (higher for building sector)

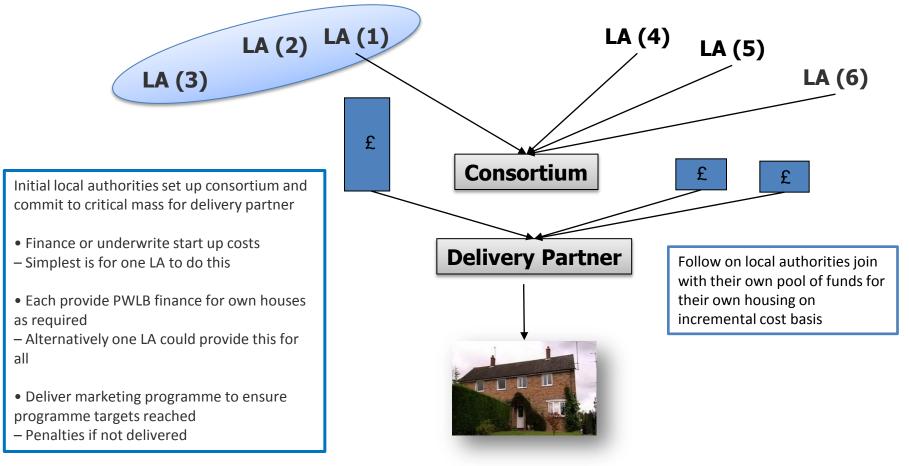
- Technologies = must use proven technologies
- Payback = 2-5 years

### Anything else?

- •Difference to ELENA EEE-F investment vehicle whereas ELENA project preparation
- •EEE-F could be used along side ELENA.
- Fund should be used to enhance the role of ESCOs providing guaranteed energy savings
  Aims to encourage biomass technologies

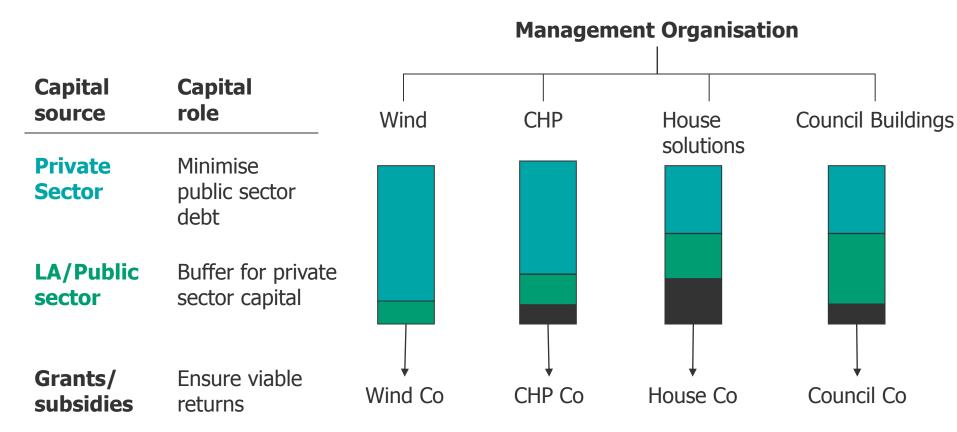


# **Local Authority Consortia**





# Multi programme structure – Illustration





## **Home Economics Report**



### Home economics Cutting carbon and creating jobs, by nation and region



# energy saving trust

#### North West

#### Level 1:

Number of jobs supported Cavity-wall insulation: 6,300 Loft insulation: 5,000 Total jobs: 11,300

Gross value added Cavity-wall insulation: £245m Loft insulation: £285m Total gross value added: £530m

Savings on fuel bills Loft and cavity-wall insulation: £126.8m

#### Level 2:

Number of jobs supported Cavity-wall insulation: 6,300 Loft insulation: 5,000 G-rated boiler replacement: 5,000 Total jobs: 16,300

Gross value added Cavity-wall insulation: £245m Loft insulation: £285m G-rated boiler replacement: £259m Total gross value added: £789m

Savings on fuel bills Loft and cavity-wall insulation: £126.8m G-rated boiler replacement: £69m