


GENERAL INFORMATION

PETUS description of tool in use						
Name of the case	Green Diploma, certification for sustainable building operation					
Name of the tool	Green Diploma					
Country	Denmark					
City / region	Copenhagen Region (the Green diploma is national, but the examples included are housing departments located in the Copenhagen region)					
Total area (km ²)	2870,6 km ²					
Population	1.819.163					
Density (people/km ²)	634 people/km ²					
Tool user's profile	<ul style="list-style-type: none"> a. Organisation name (municipality, NGO, national or regional department, company, etc.) b. Field of activity c. Detailed contact/feedback (project website, e-mail, address, tel., fax) 					
	<ul style="list-style-type: none"> a. The housing departments are: AF Beyersvej (Copenhagen), Toften (Albertslund), Hørgården 1 and 2 (Copenhagen), Egedalsvænge (Kokkedal), Hjortegården (Herlev), Hyldebjerg (Albertslund), Avedøre Nord (Hvidovre), Blågården (Copenhagen) b. Building operation c. Addresses etc. can be found at the website of the National Organisation for Housing Associations (Boligselskabernes Landsforening, BL), http://www.bl.dk/BL/blbolig.nsf 					
Reviewer, date						
Short description of the case <i>abstract up to 300 words</i>						
<p>Green Diploma is a new concept for environmental certification of existing buildings. The Green Diploma has been developed by the National Organisation for Housing Associations (Boligselskabernes Landsforening, BL), with the Danish Centre for Urban Ecology (DCUE). It was launched in the autumn of 2003, and is therefore just in the initial stage, where the first experiences are being made. So far, 9 housing departments and housing associations have achieved the diploma. Green Diploma helps to visualise the environmental efforts, and give the department (or association) a green profile. When the diploma is achieved, it lasts for 2 years and then it has to be revised. To achieve the diploma the following is required:</p> <ul style="list-style-type: none"> - Formulate an Environmental Management Plan (defining focus and goals for the environmental efforts) - Publish Green Accounts - Communicate the results to the residents <p>The experiences so far show that it is mainly the departments who are already very active who have applied for the Green Diploma, but also that the departments have very different motivations for applying. These motives reflect the different social, economic and environmental context of the departments. It will be a big challenge to make the departments apply for the Green Diploma; however, the Diploma has a large environmental potential, as it is based on a continuous environmental efforts, and no similar tool exists at the moment.</p>						
<p>Why was the case chosen? To which PETUS key-problem is this case study related?</p> <p>It is primarily related to the PETUS key issue of Emission reduction for the building sector, but also to problems in the other sectors (for instance reducing use of energy and water in buildings, reducing waste, reducing groundwater pollution).</p>						
Sector	Waste	Energy	Water	Transport	Green/blue	Building & Land Use
						X
Scale of project	Component	Building	Neighbourhood	City	Region	
		x	x			
Status of project	Starting up	Ongoing	Finished	Start date	End date (exp.)	
		x				
Key words <i>Sustainable building operation, certification, social housing</i>						
Project	<ul style="list-style-type: none"> a. Object (building, city park, wind farm, etc.) b. Type of activity (regeneration, renovation, new development, etc.) c. Type of product (plan, scheme, design project, etc.) 					
	<ul style="list-style-type: none"> a. building, housing association b. building operation, certification c. plan, green certificate 					
Tool	<ul style="list-style-type: none"> a. Character (according to WP3final0704.doc) b. Benchmarks (qualitative or quantitative) c. Availability (paid/ free) 					
	<ul style="list-style-type: none"> a. diploma b. yes c. free 					
Decision-making process	<ul style="list-style-type: none"> a. Stage of the tool implementation (preliminary, midterm, etc.) 					
	<ul style="list-style-type: none"> a. Operation 					

b. Level (political, technical, etc.)	b. political and technical
c. Public participation	c. yes
Other (optional, if needed)	

DETAILED INFORMATION

A. Detailed description of project and tool	
<p>1. Description of context (existing strategies, laws, policy, action plans, etc.): EU, national, regional, municipal</p>	<p>Social Housing Departments are typically organised over neighbourhoods built in the same period, with same technical standard and architecture. There are app. 8.000 departments in Denmark, with a size from 20 up to several thousands dwellings. Each Department is economically independent, and has its own local board, consisting of residents, and elected by the residents. The local board is the primary actor to decide questions about operation of the buildings and green areas, green initiatives, and if whether they will go for the Diploma. The Departments are organized in Social Housing Associations that take care of administrative tasks, and provide staff for maintaining the buildings. There is app. 700 Housing Associations in Denmark. They are organised under the National Organisation for Housing Associations. Some associations are very active trying to make their departments take up sustainable initiatives. For instance, many associations are making green accounts for all their departments, and distribute them to the departments, hoping that it will make them act more sustainable. Some of the smaller Housing Associations have a joint Housing Association Manager, taking care of the administrative tasks for the associations.</p> <p>The Green Diploma was launched in the autumn of 2003, and is therefore just in the initial stage, where the first experiences are being made. The Green Diploma has been developed by the National Organisation for Housing Associations (Boligselskabernes Landsforening, BL), with the Danish Centre for Urban Ecology (DCUE) doing the practical work, and administrating the diploma, i.e. assessing the material from the departments, and deciding if it qualifies them to get the diploma.</p>
<p>2. Description of project</p> <p>a. Background (What caused the initiation of the project?; What was the problem? Who initiated the project?);</p> <p>b. Objectives/aims (sustainability statement – what issues of sustainability were attacked);</p> <p>c. Time interval and stages of project realization;</p> <p>d. Financing – amount, sources, institutions involved, partnerships, levels.</p> <p>e. Other sectors involved in the particular project/problem (conflicts and/or links)</p>	<p>The Green Diploma (GD) is a certificate for Social Housing Associations and Social Housing Departments. It states that the Department (or the association) are working environmentally systematically and goal oriented. App. 1 million residents live in the 530.000 social housing dwellings in Denmark (app. 20% of the housing stock). Green Diploma helps to visualise the environmental efforts, and give the association a green profile. When a housing department (or a housing association) has achieved the diploma, it lasts for 2 years and then it has to be revised.</p> <p>b. The Green Diploma allows for individual preferences on which environmental issues to take up. The department has to choose at least three issues to work on, out of the nine following: Heating, electricity, water, waste, procurement, cleansing and chemicals, transport, green areas, information and activities for residents. The nine departments, who have achieved the diploma so far, have defined rather different goals (see appendix 2). Most departments have chosen rather simple goals, others have been more ambitious, and have defined goals for all nine environmental issues.</p> <p>c. The Green Diploma was launched in 2003</p> <p>d. The guide for the Green diploma is available for free on the web. For the housing departments, participation is free in the introduction period. It has not yet been decided what the price should be after this period. The housing departments (or housing associations) finance the different initiatives themselves.</p> <p>e. The Green Diploma is building & land use, and covers different sectors on a local scale</p> <div style="text-align: right;">  <p>Logo of GD</p> </div>
<p>3. Description of tool</p> <p>a. Character (according to WP3final0704.doc) - calculation tools, process tools, assessment methods, generic tools, simulation tools, guidelines, framework tools, schemes, indicators and monitoring, checklists, case-specific tools;</p> <p>b. Availability of the tool (web-based / paper, paid / free, etc.)</p> <p>c. Based on existing tool or</p>	<p>The diploma is achieved by the department on the basis of a scheme that states the actual state of different environmental issues of the department, and on the planned goals and initiatives in the following period. The following points have to be made to achieve the diploma:</p> <ul style="list-style-type: none"> - Formulate an Environmental Management Plan (defining focus and goals for the environmental efforts) - Publish Green Accounts - Communicate the results to the residents <p>For each of these four points, minimum demands are defined in the Green Diploma manual. To achieve the Green Diploma, the housing department has to fulfil these demands. The department can also calculate a total score for its sustainability (the "Green Points"), which makes it comparable to other departments, but this is voluntary.</p>

<p>newly elaborated;</p> <p>d. Adaptation of the tool to the local context (are there local experts involved in tool's development?)</p> <p>e. Other tools implemented to support the project development</p>	<p>To apply for the Green Diploma, the department fills out an application, with the necessary information. This is sent to the administrator of the diploma (Danish Centre for Urban Ecology, DCUE), who decides if the department should have the diploma. After the achievement (which lasts for 2 years), the department might be subject to a random check, to see if the initiatives described, are being followed.</p> <p>b. See A.2.d.</p> <p>c. It is newly elaborated, but the Green Diploma is based on experiences from other tools. Existing certification tools as ISO 14000 was seen as too ambitious and comprehensive for housing departments. The green accounts in the diploma is inspired by the green accounts developed by DBUR (see WP2 for a description), but this concept is regarded as too difficult to manage. Most housing associations and departments do not know how many residents live in the departments (which is necessary to know to use DBUR's Green Accounts). This information has to be collected from the national register, and here the register supervision has limits for how precise the information can get. Also the housing association has no access to the private electricity consumption, which is settled between consumer and supplier. Collection of these data makes DBUR's concept of Green Accounts too heavy to use, according to DCUE. Therefore, the concept of green accounts in the Green Diploma is more moderate in the requirements for data. As positive models for a labelling system, the Green Key (for hotels) and the Swan (a Nordic label for products) were used in developing Green Diploma.</p> <p>d. To be implemented in a local housing department, it is required that local inspectors, chairmen or others fill in the required information, and formulates environmental goals</p> <p>e. In most departments, there are tools or procedures being used already, which partly overlaps the green diploma. Several housing associations and departments publish green accounts, some of them from the DBUR-concept, others from home-made concepts, and others from concepts developed by consultants. Also there is the ELO-system, a nationally required system for mapping and monitoring energy and water consumption, where ELO-consultants each year check buildings of more than 1.500 sqm., and suggests improvements. Many housing associations have their own ELO-consultants, preparing monthly reports on consumption of energy and water in the buildings. The key figures from the ELO-reports are integrated in the Green Diploma's point system (see appendix 1).</p>
B. Tool implementation	
<p>1. Argumentation for choosing the tool</p> <p>a. What were the reasons for the implementation of the tool? (voluntary or requested by what local, national, etc regulation)</p> <p>b. Who took the initiative for choosing /elaboration the tool?</p> <p>c. What were the criteria for choosing the tool?</p>	<p>a, b and c:</p> <p>In December 2003 the first nine social housing departments and housing associations received the Green Diploma. Out of these nine housing departments and associations, five departments were administrated by the same Housing Association Manager (3B), who played an active role in pushing the local departments to apply for the Green Diploma. This pressure and persuasion on the local departments was in practice carried by the Green Guide from 3B.</p> <p>"Green Guides" is a national arrangement of local environmental guides, employed by local organizations (for instance municipalities, housing associations or sports organizations). The guides have to promote a more sustainable way of living, which can be done by informing, inspiring and activating people on a local scale. The green guides were established in 1997, financed by "The Green Fund", a national funding for local environmental initiatives. In 2000 there were app. 100 Green Guides all over Denmark. Although the Green fund in 2001 was abolished by the new right-wing government, some Green Guides have continued.</p> <p>3B, the Housing Association Manager, had employed a green guide, who participated in the steering committee for the Green Diploma, and was very active to make 3B's departments get the green diploma. When the Green Diploma was awarded for the first time in December 2003, five departments from 3B got the diploma. The departments have had different backgrounds and motivations for applying for the diploma:</p> <p><i>AF Beyersvej (Copenhagen).</i> This department has 36 dwellings, with app. 70 residents. The department is very socially oriented, and involves the residents in all decisions. For them, joining the diploma was a way to gain a sense of community, and to improve the economy in the department.</p> <p><i>Hørgården I-II (Copenhagen).</i> These are very large departments, with many social problems. The local committee is divided on the question on environmental efforts; some think it would be a really good idea, and the other part supports it because it has been decided (although they preferred not to join). A part of the staff are very supportive, and have the view, "if the environment in the department is ok, then at least something is ok". This means that an environmental initiative is seen as a possible way to create a success or a positive experience in a socially deprived housing department. They started a local and very successful water saving campaign in 1991-92, based on water meters, and competition on savings between the</p>

<p>d. Was there knowledge of other tools and were they considered?</p>	<p>blocks in the department. After the campaign they hired their own green guide in 1997, which afterwards lead to working for the Green Diploma. For Hørgården the Green Diploma is a way to strengthen the social profile of the department.</p> <p><i>Egedalsvænge (Kokkedal).</i> This department has 1.600-2.000 residents with many immigrants (app. 60%). It is a local Green Guide that has been active in implementing the Green Diploma. Here, the focus has been on the process, of involving the residents. The green guide's hope is to use the Green Diploma to give the department a better reputation, so it is not just related to problems. The department has a very bad reputation locally, therefore it is looking for some successes to give a better image. They have made some single environmental initiatives, but the Green Diploma can help them to make a more continuous effort. For Egedalsvænge the Green Diploma is also a way to strengthen the social profile of the department.</p> <p><i>Hjortegården (Herlev).</i> This department houses app. 2.600 residents, and is the most environmental ambitious department in 3B. For instance they have introduced a local waste tariff, based on weighing the waste from each household, they publish their own green accounts, and they generally do a lot to inform and involve the residents. Their environmental committee includes 40 persons. As they have already taken many initiatives themselves, they could not see how joining the Green Diploma would make them do more. Also, they did not want to get tied to the administrative procedures, but preferred to do things their own way. Therefore, 3B had to ask the local board several times to persuade them to join the diploma. This illustrates show a department that was already very environmentally active, achieved the diploma without changing much effort.</p> <p>The examples indicate that the departments have different motivation for applying for the Diploma, and they see different possibilities in it. This includes social, environmental and economic benefits, idealism and image-building, which also reflects the department's different history and background. The majority of the app. 60 housing departments in 3B, however, have not applied for the Green Diploma. Generally, most departments say that they are in a waiting position, where they want to see how the certificate develops in other departments, before they decide to apply for it themselves. Only 3 departments have rejected the Green Diploma completely; their reason for not being interested in applying is that they think that their staff is already doing a good job.</p> <p>To a large extent it is the environmentally active departments who have joined the diploma so far and probably have integrated existing goals in the goals for green diploma. They see the Green Diploma as a continuation of their existing initiatives, just more structured. Those departments have not had to change much in their practice to get the diploma (interview, Bettina Fellov). For other departments, although the goals might not be very ambitious, it might lead to integration of other goals in later on, as a part of a process to improve the department socially and economically. But generally, it is too early to say how the green Diploma will affect the actual actions and operation in the housing departments.</p> <p>d. The Green diploma is based on the knowledge of other tools (see A.3.c.). In the departments, there are tools or procedures being used already, which partly overlap the green diploma (see A.3.e.)</p>
<p>2. Barriers for the tool implementation What were the main problems in the tool implementation? (Regulation, information available, public awareness, lack of clear SD definitions and benchmarks, communication etc.)</p>	<p>The following problems / barriers has been raised (interview with Green Guide in 3B):</p> <ul style="list-style-type: none"> • The Green Diploma manual is too long (52 pages) • The point system has made many departments reject the Green Diploma, as they were afraid it would be too difficult to maintain their score • It took long time (¾ of a year) from the Green Diploma was first introduced to the departments, until the final version was ready, and the departments could actually apply for it. For some departments this was too long time to wait, and they lost the enthusiasm. However, this problem is related to the upstart, and cannot be seen as a general problem of the Green Diploma.
<p>C. Influence of the tool on the decision-making process</p>	
<p>1. Description of the decision-making process/ procedures</p> <p>a. Stages b. Levels (political, technical, etc.) c. Sources of information used during the dmp; d. Who are the decision-makers? e. Who made the final decision for the project</p>	<p>a. The Green Diploma concerns the operation of the buildings b. It includes both technical and political levels. c. It is up to the local housing department on how to inform the residents (see above for the examples) d. In the Departments, it is the local board that decides whether the department should apply for the green diploma. Some departments decided it on a meeting with the residents, in other the board decides it after having asked the residents and the staff first. e. see d.</p>

<p>implementation? Was it political or technical decision?</p>	
<p>2. Tool in decision-making process</p> <p>a. At what stage was the tool implemented? By whom? (experts, politicians, etc.)</p> <p>b. How did the tool output influence the process (added or skipped levels/stages in the existing decision-making process, etc.)?</p> <p>c. Quantitative goals or benchmarks defined? (If YES, which – and what were they compared to?)</p> <p>d. Was the tool used to support argumentations?</p>	<p>a. The Green Diploma is implemented in the operation phase, by the local Housing Department Board</p> <p>b. The tool has been implemented differently, and with different outcomes (see C.1.)</p> <p>c. Yes. There are quantitative goals and benchmarks included in the Green Diploma, in terms of the green accounts that the department has to make, and on the point-system that weights together different aspects of the departments environmental status (see appendix 1). The point-system is a way to make a total score of the environmental state of the department. To get the diploma, the department has to fill in the information that will enable the calculation of a total score on the environmental status. However, the score does not affect whether the department will get the diploma or not. This has been decided due to the different preconditions and contexts of the housing department. The score-system has however been maintained because some housing associations found a total score it attractive, in spite of its shortcomings. In practice, the score-system can be used by the individual departments to compare their score from year to year.</p> <p>The demands regarding the Green Accounts are that they are made every year, and distributed to the residents. There are, however, no demands that they should be compared with other departments green accounts, to benchmarks, best practice or to last year's account. The intention is that after some years the data from the introduction period of the Green Diploma will be used for benchmarking and defining a demanded minimum-score for departments applying for the Green Diploma.</p> <p>d. the diploma is used to define the environmental goals in the housing departments, and to make environmental problems and possible solutions visible.</p>
<p>3. Transparency of decision-making process</p> <p>a. How was the information of the dmp disseminated? - directly (decision makers – public) or indirectly (decision makers - NGO, PR company, etc. - public); sources of dissemination used (mass media, internet, brochure, etc.)</p> <p>b. How was the public involved?</p> <p>c. Was there a public discussion over the project and at what stage of the project development?</p>	<p>a. The Green Diploma has been promoted by DCUE (Danish Centre for Urban Ecology) and the National Organisation for Housing Associations in journals, newspapers, on meetings, on web-sites etc.</p> <p>b. In the Departments, it is the local board that decides whether the department should go for the green diploma. Some departments decided it on a meeting with the residents; in other departments the board decides it after having asked the residents and the staff first. To achieve the Diploma, a plan for the information of the residents has to be completed, which means that the residents will be continuously informed as long as the department holds the green diploma.</p> <p>c. See b.</p>
<p>D. Expert assessment/analysis/comment of the tool effectiveness</p>	
<p>1. Assessment by tool users</p> <p>a. Were there measurable improvements as a result of the tool implementation? If YES, what? If no: why not?</p> <p>b. Were there any spun-off's or unintended consequences?</p> <p>c. General view on the tool? Lessons learned?</p>	<p>a. There has been no assessment of evaluation of the Green Diploma in relation to efficiency. Many of the departments that achieved the Diploma were already very environmentally active, and did not have to change many of their actions to achieve the Diploma. For the other departments it is too early to say how much the Green Diploma will affect the environmental performance of the departments.</p> <p>b. No documentation yet</p> <p>c. According to the people who have worked with the Green Diploma so far, the Green Diploma is a very promising tool for making housing departments more environmentally active. The positive element is that the scheme to assess the department's environmental state is simple and easy. It has been observed that the residents and staff are proud of achieving the Diploma, and they do not want to loose it again, which motivates them to continue their efforts. The problem is that it takes time to communicate the concept of Green Diploma to the departments, and make the relevant persons aware about the possibility on achieving the diploma. Also it has been mentioned that the Green Diploma manual is too long (52 pages). The point system has been much discussed. Some housing associations want them, as they think it is important to have concrete measures of their level of sustainability. The point system has however also prevented many departments from joining, as they were afraid that they would loose the diploma. The same has been the problem with the administrations. For instance, the administrators 3B got new pc's, which resulted in a 20% increase in electricity consumption instead of the expected 5% reductions. Therefore, today the points have become</p>

<p>d. Potentials for further use of the tool?</p> <p>e. Will the actors recommend it or use it in other cases - why / why not?</p>	<p>voluntary, and are meant as a way to measure your own efforts.</p> <p>d. According to the Green Guide of 3B, the Green Diploma might develop into two different directions, which will be difficult to combine:</p> <ul style="list-style-type: none"> • In an instrumental way, where the diploma and the initiatives will be facilitated by the operation staff in the departments, with a primary focus on reducing consumption, making operation more smooth and eco-efficient etc. • In a process-way, where the initiatives are based on the residents involvement, and as a way to start a process that will improve the department socially and environmentally <p>e. A main challenge will be to make the social housing departments want to get the Diploma. This will probably depend on the ability of National Organisation for Housing Associations and DCUE to promote the Diploma, on how active the Housing Associations will be in promoting it towards their departments. There are plans to use the Green Diploma in the Dogme-network (see deep Case Study, WP3), as a way to measure how much environmental initiatives are anchored locally amongst neighbourhoods; the number of housing units having achieved the diploma will be an indicator for the anchoring. If this will happen, it will probably be a boost for the Green Diploma.</p>
<p>2. Reviewer's assessment of the tool (usefulness, sustainability relevance, who are the actors excluded? etc.) Suggestions and needs for further development of the tool</p>	<p>Similar to tool users view (D1c); there are positive and negative sides of the Green Diploma. The biggest problem is that rather few departments so far have applied for the diploma. The reasons for this should be investigated. One reason is probably, that very few housing departments are aware of Diploma. A more active effort and promotion from the Housing associations could Improve this situation.</p>
<p>E. Additional information on the case study available</p>	
<p>Websites</p>	<p>Information on the department's data for green diploma on DCUE homepage: http://www.dcue.dk</p>
<p>References concerning the case but also the key words or problem (papers, articles, reports, laws, etc.)</p>	<p>Bettina Fellov og N. Hussain, 2003: <i>Case-studies of environmental competences of 3 non-profitable housing associations by implementing the environmental certificate for estates</i> (the Green Diploma) [Case-studie af 3 almene boligafdelingers miljøkompetence ved implementering af diplomordningen]. Afgangsprøjet fra Teknisk Miljøledelse, DTU, forår 2003</p>
<p>Other sources (Interviews, conferences, discussions, etc.)</p>	<p>Interview with Mr. Søren Nyskov (DBUR) d 28.10.2003 Interview with Mrs. Bettina Fellov, green guide at 3B d. 9.12.2003.</p>
<p>Contact details for further information</p>	<p>Mr. Michael Grinda Rasmussen (the National Organisation for Housing Associations)</p>

Appendix 1. Green Diploma point-score in a housing department (AF Beyersvej)

Grønne regnskabstal for Fællesadministrationen 3B 3057 A.F. Beyersvej 2002		
	Nøgletal	Pointscore
Varme		
Varmeforbrug kWh pr. m2	101	133
Varmeforbrug kWh pr. beboer	4.167	
El		
El-fællesforbrug pr. m2, kWh	8,25	-50
Fællesforbrug pr. beboer, kWh	403	
Privatforbrug pr beboer, kWh	0	
Vand		
Vandforbrug pr. m2	1,09	-50
Vandforbrug, liter pr. beboer pr. døgn	146	
Affald		
Affaldsproduktion, kg pr. person pr. år	468,00	-50
Pointscore fra grønne regnskabstal		-17
Pointscore øvrige indsatsområder		735
Samlet pointscore		718
Se detaljberegninger nedenfor		
Enheder, mellem-regninger	Nøgletal	Pointscore
Årets graddage	2.632	
Energiindhold pr. enhed x udnyttelsesgrad	300	
Fjernvarme (MWh)	0	
Fyringsolie (liter)	0	
Naturgas (m ³)	0	
El-varme (MWh)	0	
Solvarme (MWh)	0	
Biogas (m ³)	0	
Rapsolie (liter)	0	
Brænde, løvtræ (rummeter)	0	
Brænde, nåltræ (rummeter)	0	
Halm (ton)	0	
Skovflis (rummeter)	0	
Træspiler (ton)	0	
Varmeforbrug i alt	300	
Graddage-korrigeret varmekonsumtion i alt	322	
Varmeforbrug kWh pr. m2	101	
ELO-nøgletal for beboelsestypen	116	
Afvigelse fra ELO-nøgletal, pct.	13,31	
Pointsats pr. pct. afvigelse, max 300/-50	10	
Pointscore >>>		133
Elforbrug		
Privatforbrug pr beboer, kWh	0	
Fællesforbrug pr. beboer, kWh	403	
El-fællesforbrug pr. m2, kWh	8,25	
ELO-nøgletal for beboelsestypen	6,50	
Afvigelse fra ELO-nøgletal, pct.	-26,93	
Pointsats pr. pct. afvigelse, max 300/-50	10	
Pointscore >>>		-50
Vandforbrug		
Vandforbrug pr. m2	1,09	
ELO-nøgletal for beboelsestypen	0,87	
Afvigelse fra ELO-nøgletal, pct.	-25,41	
Pointsats pr. pct. afvigelse, max 150/-50	5	
Pointscore >>>		-50
Dagrenovation, alm. husholdningsaffald		
Affaldsproduktion, kg pr. person pr. år	468	
Miljøstyrelsens nøgletal for dagrenovation	317	
Afvigelse fra nøgletal, pct.	-47,63	
Pointsats pr. pct. afvigelse, max 300/-50	10,00	
Pointscore >>>		-50
Pointberegning for øvrige indsatsområder		
Affald	Nøgletal	Pointscore
Pointsatser		
Papir og pap sammen	30	0
Papir for sig	30	30
Pap for sig	30	30
Flasker og glas	30	60
Lokal kompostering	30	60
Metal	30	0
Kølemøbler	30	60
Storskrald	30	60
Bildæk	30	0
Andre fraktioner	30	60
Miljøfarligt affald	-200	0
Restaffald	0	0
Lokal genbrugscentral-butik, byttebilis	50	25
Tiltag for minimering af affaldsmængderne	50	50
Indkøb		
Elsparefonden	10	10
Økologiske fødevarer	30	0
Rengøringsmidler	30	0
Vedligeholdelse	50	50
Kunstgødning	-50	0
Insektmidler	-100	0
Ukrudtsmidler	-100	0
Trykpræsgeret træ	100	-100
PVC-holdige materialer	50	0
Miljøkrav til leverandere	50	0
Kemikalier og hjælpe-stoffer		
Årlig registrering	30	30
Faglig vurdering	50	50
Transport / maskinpark		
Medarbejdcykler	30	0
Alkylatbenzin	30	0
Katalysator på alle motorredskaber	30	0
Periodiseret vedligehold	30	30
Udearealer		
Nedsivning af regnvand	0,5	0
Arealer til fri natur	1,0	0
Arealer til (koloni)havelodder	2,0	0
	1,0	50
Informationsformidling og beboeraktiviteter		
Tid brugt på miljøarbejde	1	10
Tid brugt på miljøuddannelse	10	0
Orientering af medarbejdere	50	50
Netværk med andre organisationer	50	0
Information ved indflytning	50	0
Informationskampagner	50	50
Miljøudvalg med beboere	50	50
Årlig miljørådgørelse	50	0
Andre særlige tiltag / diverse		
Særlige tiltag	100	20
Samlet pointscore >>>	>>>	718

Points based on Green Accounts

Nøgletal: Measured key figures on energy, water and waste
Pointscore: Score based on the key figures

Varme: Heating per m2 and per person

El: Electricity, common (per person and per m2) and personal consumption (per person)

Vand: Water per m2 and per person/day

Affald: Waste production per person / year,

Point: Points from green accounts and from other initiatives

Samlet pointscore: Total number of points.

Detailed calculations on Green Accounts

Information on type on heat supply (district heating, fuel, electricity, solar-heating etc.), degree-days for adjustment of heat consumption, key figures from ELO-reports

Elforbrug: Details on electricity consumption

Vandforbrug: Details on water consumption

Dagrenovation: Details on waste production

Points on other initiatives

Affald: Waste, including paper, cardboard, glass, metal, furniture, and other.

Indkøb: Purchasing, including organic food, cleansing agents, fertilizers and pesticides, weeds-killers, materials containing PVC, pressure-treated wood etc.

Kemikalier og hjælpe-stoffer: Annual registration and assessment of chemicals and additional

Transport og maskinpark (transport and machinery), including bicycles for staff, catalysts, maintenance etc.

Udearealer (Green areas): Local percolation of storm-water, areas for free nature, areas for allotments

Informationsformidling og beboeraktiviteter: Information and activities for residents, including time spent on environmental initiatives, education, information campaigns, network with other departments or organisations etc.

Andre særlige tiltag: Other activities

Appendix 2. The departments' environmental initiatives

The environmental initiatives that the departments have chosen (out of the 9 optional) are:

AF Beyersvej

- reduction of water consumption with 5 litres per person pr. day
- better waste sorting through improved information to the residents
- mapping and storage of chemicals

Hørgården 1 and 2 (same goals chosen):

- 3% reduction of electricity
- reduction of water consumption by 10 liters per. person per day
- the number of collections reduced by 10%, reduction of fines due to wrong sorting

Egedalsvænge (no goals defined, only initiative-issues):

- Electricity
- Cleansing and chemicals
- Information and activities for involving residents

Hjortegården

- 3% reduction of electricity
- reduction of water consumption by 7,5 liters per. person per day
- Information and activities for involving residents. The goals to maintain a number of 40 members in the environmental committee

Toften, Albertslund (no goals defined, only initiative-issues):

- Reduce heat consumption by insulating the heat supply and the hot-water supply and ensure a better distribution of heating.
- Will investigate the electricity consumption in the laundries for possible reductions
- Better waste sorting so the fractions gets cleaner
- Prepare guidelines for purchasing so the best environmentally friendly alternative is chosen

Hyldebjerg, Albertslund (goals on all areas):

- Reduce heat consumption by 0,5% p.a.
- Reduce electricity consumption by 1% p.a.
- Reduce water consumption by 2% p.a.
- Reduce waste production by 1% p.a.
- No purchase of pressure-treated wood or PVC, use linseed-oil, nature paint and environmentally friendly materials
- Environmentally friendly products for cleansing and chemicals
- The number of person cars should be at a level of 1999
- Maintenance of green areas based on organic principles, re-use of all organic material from the green areas
- Residents are regularly informed through the neighbourhood paper

AKB Avedøre Nord

- Reduce heat consumption by 3%
- Maintain low common electricity consumption
- Reduce water consumption by 20%
- Reduce waste by 2%, change bulky refuse collection
- Settling environmental demands for suppliers on all purchases
- Green areas: More voluntary contact persons for the environment committee
- Improve information through campaigns

Blågården, Copenhagen

- Reduce the water consumption by 10% compared to last year
- To avoid increase costs for waste disposal more than 25%, in spite of new waste taxation structure, by better waste sorting and better capacity using