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| **EAc3: Enhanced Commissioning** |
| **Requirement** | **Information provided by the DES company** | **Related documents** |
| A summary of on-going programs (or similar) for coordination and monitoring of district energy network performance in terms of energy efficiency and environmental performance    | 1) Describe briefly how energy input, heat output and heat delivered are measured and how data are gathered. |    |
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| 2) Describe briefly how emissions from the chimney are measured and how the ashes are treated?  | 2) Miljörapporter? |
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| Present a plan that summarizes the operation and maintenance is done in the district heating system (not older than two years). It should be clear how much of the maintenance plan that has been implemented (for example per cent of total budget last year) | 1) Attach documents that display measures taken the last 2 years [ e.g. renovations of plants, km of exchanged pipes, etc.] |  |
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| 2) Describe how much resources that has been spent on operation and maintenance the last 2 years [for example: per cent of turnover, millions SEK, etc] | 2) Årsredovisning?, Energimarknadinspektionens särskilda rapport? |
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| Show that the District Energy Company has an investment plan for renovations and upgrades of the district energy system (not older than two years). | 1) Describe what actions that are planned for the future, for example investments in new plants, upgrades, etc. Give information on installation year, fuel type, installed heat and electricity capacity, yearly production, etc.] | 1) beskrivs någorlunda i Fortum Värmes klimatplan |
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| 2) Describe what measures that are planned regarding facilities/plants that are going to be phased out. Information should include year, fuel, installed heat and electricity capacity, yearly production, etc. |  |
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| 3) Describe what effect the planned measures will have on the climate, such as possible CO2 reduction, etc. | 3) beskrivs någorlunda i Fortum Värmes klimatplan |
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| 4) Give information about the age of the district energy pipe network (% of the pipe network built during different decades), the situation today and planned measures for the future (no longer than 10 years ahead). | 4) REKO, Energimarknadinspektionens särskilda rapport? |
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| Show what improvements in energy and environmental performance implemented investments have resulted in (no further back than two years). | 1) Give figures for carbon dioxide emissions, primary energy factor and per cent fossil fuels for the past 2 years [g/kWh, kWh/kWh, %]. | 1) Nyckeltal enligt överenskommelse i Värmemarknadskommittéen |
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| 2) Describe the changes in environmental performance from year to year. What are the reasons for the improvements or deterioration? Describe the underlying factors such as upgrades, different temperature from year to year, etc. |  |
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| Show that the operation and maintenance personnel receive adequate training to maintain and improve the district energy system performance. | 1) Describe what requirements the company have on the personnel [Level of education for different labor categories] |   |
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| 2) Describe how continuous training of the personnel is performed [type of education, days per year, etc.]. |  |
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