



District Heating Business Case in DK

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Non-Profit

- Allowed to have surplus on the bottom line.
- 2 methods to handle surplus:
 - a) To lower heat price for the budget year – limited by a demand on “fair budgetting” for the past year.
 - b) Refund to all consumers.



Benchmarking

- Standard account plan.
- Same accounting period – calendar year.
- Typical account entries:
 - a) Production
 - b) Distribution
 - c) Administration.
- Result: DH Cooperatives are cheapest



Tariffs For All Consumers

- Heat meter tariff to cover meter costs and administration of the meters (control).
- Variable (dynamic) tariff to cover production costs (seasonal, monthly, daily or hourly).
- Fixed costs:
 - a) Adjustment for long-term costs (depreciation, interest).
 - b) Capacity tariff – discount to large consumers.
- Return temperature tariff - +/-.
- Hvidovre: 60 % variable/40 % fixed tariffs (enhance energy savings).



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Accounts

- **Opbrengsten:**
 - Vast tarief energieafnemers (naar normaalgebruik).
 - Abonnement voor meter.
 - Variabele tarief energieafnemers (naar meter).
 - Beloning/straf voor afkoeling.



Accounts

- Kosten:

1. Produktiekosten.

- Energie inkoop: Vaste kosten/Variabele kosten/Kosten voor watertoevoeging/Beloning voor afkoeling
- Onderhoud produktiekapaciteit: Afschrijving centrale/Operationele leiding



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Accounts

- Kosten:
 2. Distributiekosten.
 - Personeelkosten – leidingen en bronnen.
 - Kosten voor meter.
 - Afschrijving leidingen



Accounts

- Kosten:
 3. Administratiekosten.
 - Loon bestuur.
 - Werkgroep energie.
 4. Jaarresultaat.



Critical Factors

- Small decentralised CHPs in rural areas on natural gas depend on subsidies due to low electricity market prices.
- Central CHPs are hardly running due to the production efficiency of wind turbines.
- Supply security? – decentralisation of heat production.



Critical Factors

- Flexibility in energy production for urban areas.
- Benchmarking of construction costs.
- Contractor skills.
- Detailed tender contracts.



Critical Factors

- Complicated insurance conditions.
- EU regulation on individual data.
- Meter development and demands from the consumers to control energy consumption.
- Meeting energy saving demands from the state.



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- Administration – budget, book-keeping, accounting, billing and finance.
- Monitoring, O & M etc.
- Planning and handling construction projects – including approval by public authorities and finance.



DH Finance

- Non profit: Consumers pay everything – to be self-contained.
- Maximum 30 years depreciation period.
- Construction - Mortgage loans:
 - a) Guaranteed by municipality – 1,56%
 - b) Mortgage institutions (market) – 2,7 %.



Management Of Equity/Assets

- As small equity as possible. Not possible to accumulate equity. Surplus must be refunded to the consumers.
- Save money for earmarked projects (use the savings within 5 years period).
- Assets management: buildings/pipes/pumps etc. (plans for maintenance/exchange).
- 115 years with DH in DK: no bankruptcy!



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Image Of Danish DH

- Viable economic activities.
- No shareholders' hysteria.
- Banks etc.: DH is solid investment.
- Policy:

The Energy Minister says that DH coops are the Golden eggs in Danish energy policy.



Thank you!

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