Price tariff for small LTDH producers

"Prosumers"

Price tariff for LTDH consumers

MAX IV
Price tariff for LTDH consumers – *background*

- Supply temperature 65 °C
- Return temperature 35 °C.
- A new type of distribution pipes made out of plastic → easier and cheaper to build.
- A solitary system with constant heat production (cost).
Price tariff for LTDH consumers – result

• Connection fee
• Minimum energy price and maximum energy price
• Energy price based on the past month's average (volume balanced) return temperature, in two levels:
  – 20 – 35 °C: fee level one, X SEK/°C
  – 35 – 55 °C: fee level two, Y SEK/°C
Volume balanced return temperature

- The volume balanced return temperature is obtained by subtracting the transferred heat from the supply temperature.

Volume balanced return temperature [°C] = Supply temperature [°C] – Transferred heat [°C]

\[
\text{Volume balanced return temperature [°C]} = \frac{\text{Transferred energy [kJ]}}{\text{C}_{p_{\text{water}}} \text{[kJ/(kg, °C)]} \times \text{Transferred volume [m}^3\text{]} \times \rho_{\text{water}} \text{[kg/m}^3\text{]}}
\]
Benefits and development potential

• Simple for customers to understand.
• Favors well-functioning substations.
• Soft values can include:
  – Provide heat exchanger installation instructions to the customers.
  – Offer help with dimensioning of heat exchangers as well as maintenance.
  – Perform yearly maintenance visits.
  – Apply remote reading and control of substations.
Prosumers – pros, cons and questions

- DH RESILIENCY
- ALTERNATIVE USES OF CAPITAL
- HEAT FORECASTS
- HEAT QUALITY AND VALUE
- PROSUMER STABILITY
- INVESTMENTS & PB
Price tariff for small LTDH producers – prerequisites

• Minimum supply temperature. (Brunnshög: 65-67 °C)

• “Alternative production cost” variable:

• Outdoor temperature-related prerequisites
• “Outdoor temperature” variable:
  - Fixed outdoor temperature demand of YY °C,  
    ... and/or the compensation decreases with increasing outdoor temperature.
  - Fixed season demand,  
    ... and/or the compensation varies with the seasons.
Thank you!

Sara Kralmark, Kraftringen Energi AB