

EPC in the Nordic Countries

EPC Nordic



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guarantEE The logo for guarantEE, featuring the word 'guarantEE' in a bold, sans-serif font, with 'EE' in a larger, bolder font. To the right is a stylized graphic of three horizontal bars of increasing length, resembling a staircase or a modern building facade.
Building Energy Services in Europe

The NEE logo, which consists of a stylized green flame or drop shape next to the letters 'NEE' in a bold, sans-serif font.
NEE
NORSK ENØK OG ENERGI

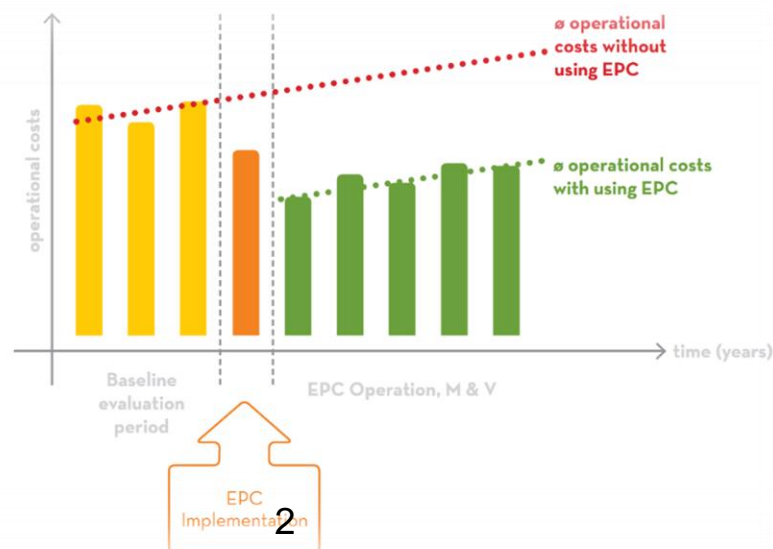


Energy Performance Contracting:

Model for implementation of EE measures with guaranteed results

Main element:

Energy savings used to cover cost of investments



A typical Nordic EPC project



- Municipality, pools of municipalities, counties
- Pools of buildings – schools, city hall, nursing homes, etc.
- Many EE measures in short time - holistic approach
- 18–50 % guaranteed energy savings
- Investments between 0,5-20 MEUR
- Maintenance lag
- Open tender procedure
- Duration 5 – 18 years
- 100 % financed by client




Secures investments

- Profitable EE measures covers costs of maintenance measures
- Kongsberg: Invested 45 MNOK/11y
- Reduced maintenance budget by 23 MNOK



Characteristics Denmark


- Measures include comprehensive renovation
- Official EPC guideline/Official National Standard
- Financial support scheme
 - Good lending conditions – gov. supported interest rates
 - Municipalities exempted from budget limitations
- Municipal initiative and commitment main driver
 - Climate Agenda + Maintenance lag
- Success stories

DK 	
Project Characteristics	
Size	130.000 m2
Number of buildings	70-80 (av.74)
Savings	20-30 %
Length	15-20 years
Investments	6-20 MEUR



Characteristics Sweden


- Long experience – looked upon as pioneer
- Market “crash” in 2009 (financing scheme removed)
- **Financial support schemes on and off**
 - KLIMP (-2008), OFFROT (2005-2009)
 - Financial support for EE improvement measures(2010-14)
 - Currently no EE support schemes
- Uncertainty about Public Procurement Act
- Lack continuity in national strategies
- Complex implement. process

SE	
Project Characteristics	
Size	120.000 m2
Number of buildings	
Savings	18 %
Length	5-6 years
Investments	1-5 MEUR



Characteristics Finland


- Former register show smaller projects
 - More projects in private sector
 - “Monthly fee” projects (private)
- Recent project in public sector more typical
- Financial support scheme in place
 - Financial grant in % of investment - not EPC specific
 - Favourable financing conditions
- Young market – emerging
- EPC Guideline not promoted
- Recent projects might serve as success stories

FI	
Project Characteristics	
Size	
Number of buildings	1-15
Savings	200-33 000 MWh annually
Length	2-5 years - recently 5-10
Investments	0,5 - 3 MEUR



Characteristics Norway

- Municipal cooperation
- Measures include none profitable measures
- Official Standard for EPC (NS6430)
- Young market – few bad experiences so far (2015)
 - Current market crisis emerged (2017)
 - Market boom 2015 – few new (capacity)
 - Deviations from NS6430
- Financial support schemes
 - Enova grant program NOW **EPC specific** - EPC first priority
 - Municipal bank, green interest rates

NO 	
Project Characteristics	
Size	17-150.000 m2
Number of buildings	10-40 (av. 20)
Savings	25 - 50 %
Length	7-18 years
Investments	3-6 MEUR



Findings and success factors

- Financial support schemes – main success factor
 - Removes uncertainties due to the complexity of the model
 - Gov. quality stamp
- Own financing by public building owners
 - Better lending conditions than ESCOs
- Little/no financing by ESCOs in public sector
 - Green interest rates, municipal banks
 - Might be a hurdle if aim is to expand to private sector
 - Some examples of “Monthly Fee” financing (Leasing)
- Model documents, guidelines, official standards
 - Seems crucial for success – also leading element for financing
 - EPC as design and build contract (“totalentreprise”)
- Governmental strategies important driver
 - Enova consider offering financial “package deal”

“We have lost millions for several years!”



“I am so looking forward to using the savings for good causes in my municipality!”

Hans-Petter Heimholt, EE coordinator, Skien municipality



Thank you for listening!



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