



Expert panel meeting 专家组会议

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PURPOSE OF MEETING 会议目的

- To discuss expected policy proposals in cooperation with NEA/CREEI regarding incentives for renewable solutions and energy planning
- **与NEA/CREEI合作讨论政策预期及建议，涉及可再生能源解决方案的激励措施与能源规划**



Proposals incentives -Prospect- and CETO reports

激励措施政策建议-前景展望报告和CETO报告

- Power market reform (C8) – incentives for utilizing surplus power for heating (Electric boilers and Heat pumps)
- 电力市场改革（**C8**） – 促进利用富余电力进行供热（如电锅炉和热泵）
- Use energy taxation and subsidy system for ensuring wanted renewable solutions are preferred (C10)
- 能源税收与补贴体系（**C10**） – 确保可再生能源解决方案的优先选择
- Implement heat metering and billing system (P11)
- 实施供热计量与计费系统（**P11**）



Pricing system based on actual costs

Pros

- Less risks of liquidity issues
- Less cross subsidizing/distortion
- Give right incentives for consumer energy conservation
- Less risks company/financing
- DH company wants to expand to existing areas

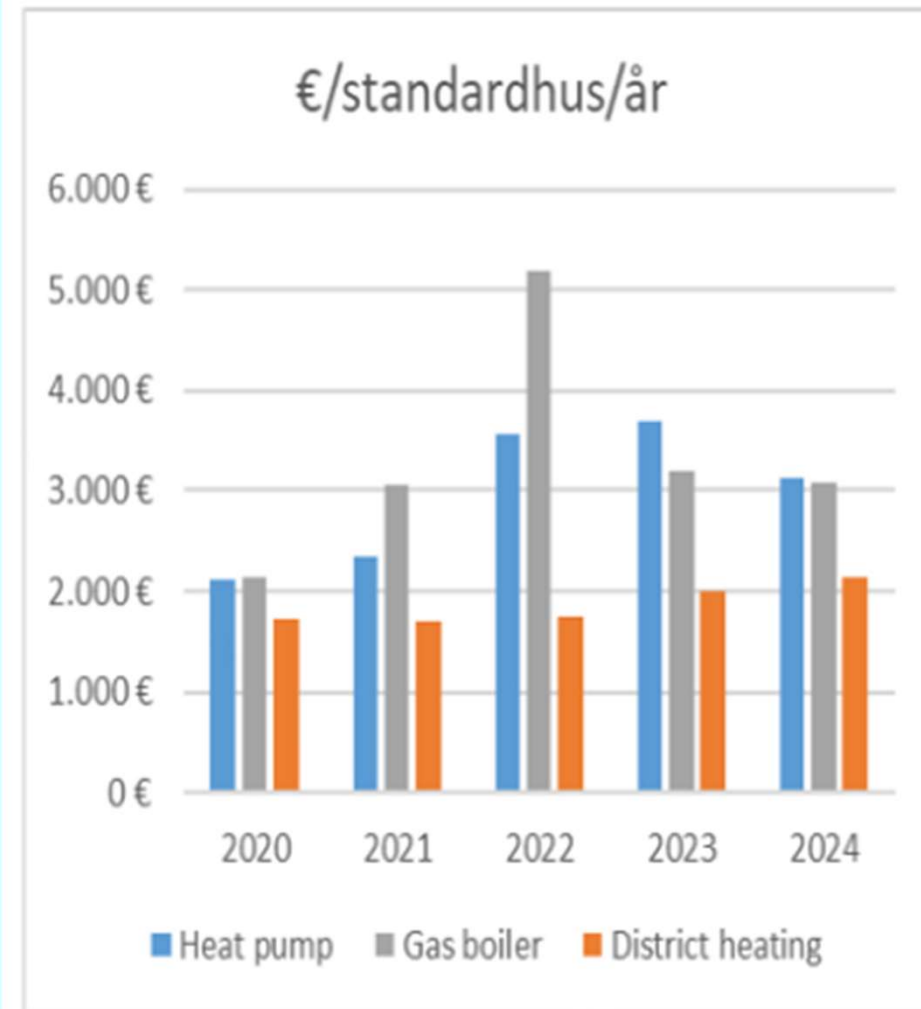
Cons

- DH company less incentives for Energy conservation
- Price can deviate a lot from year to year
- Price dependent on company management/skills
- May need guidelines regarding accounting, depreciation and building capital (less economic flexibility)



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Average consumer cost
standard house EUR/year



Pricing system based on actual costs 基于实际成本的定价体系

优点：

- 降低流动性风险
- 减少交叉补贴和市场扭曲
- 给予消费者正确的节能激励
- 降低企业及融资风险
- 供热公司更愿意扩展至现有区域

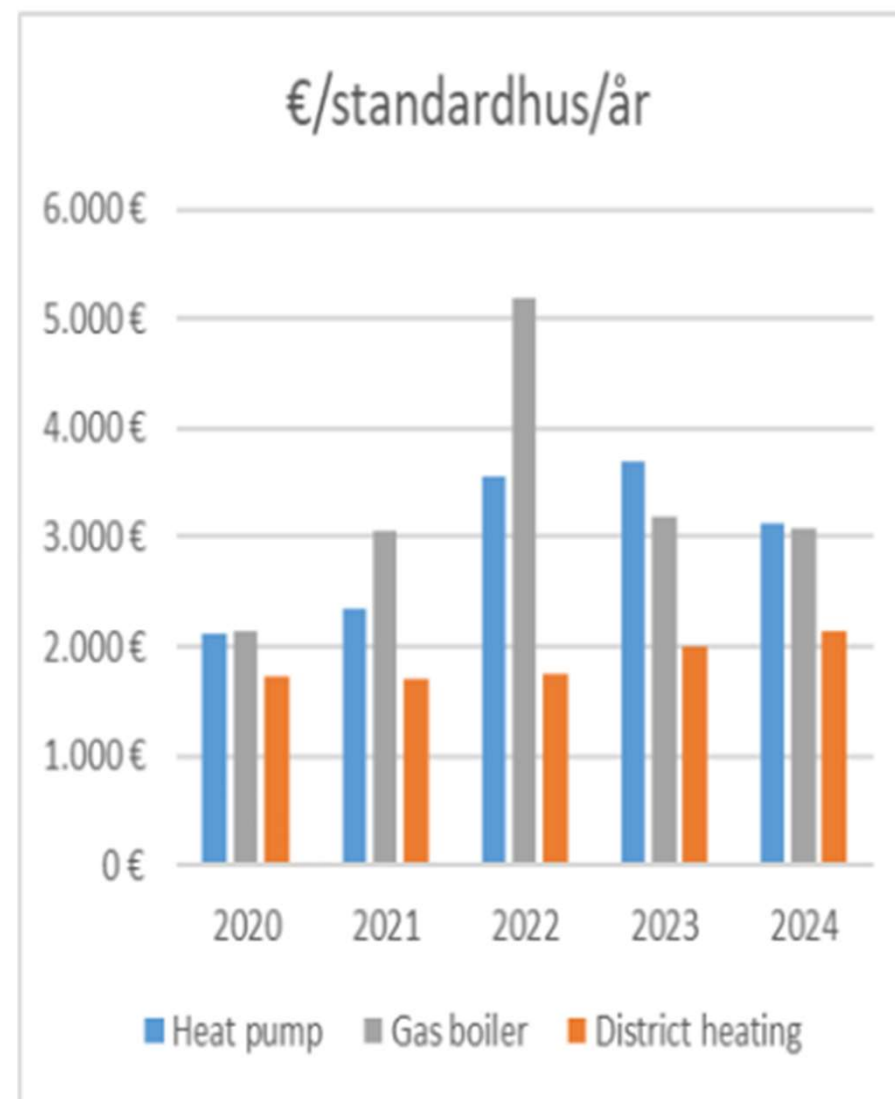
缺点：

- 供热公司节能激励不足
- 价格可能随年份波动较大
- 价格依赖于企业管理水平
- 可能需要制定关于会计、折旧和资本建设的指导方针（降低经济灵活性）



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标准房屋平均消费成本 欧元/年



Ownership – Private/public

Pros private compared to public:

- Operation optimized
- More flexibility
- Motivated management
- Ensure heating sector do not finance other public tasks
- Ensure some degree of competition if consumers are not required to connect

Cons private compared to public:

- Private companies only connect feasible consumers
- Difficult to expand networks
- Private companies are not delivering to Gov. objectives unless subsidy
- Short-term thinking (Pay-back not long term price)
- Risk use of monopoly (Not protecting consumers)
- Needs more consumer protection regarding pricing
- Risks of price-transferring
- Difficult access to land (Not part of public planning)



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Ownership – Private/public 供热模式-私营/公营

私营模式相比于公营的优势：

- 运营效率优化
- 更具灵活性
- 管理层更具动力
- 确保供热行业资金不被用于其他公共事务
- 在用户非强制接入的情况下，确保一定程度的竞争

私营相比于公营模式的劣势：

- 仅优先连接具有经济可行性的用户
- 难以扩展供热网络
- 除非有补贴，私营企业不会主动服务政府目标
- 过于关注短期回报，而非长期价格稳定
- 存在垄断风险（消费者保护不足）
- 需要更多价格监管措施
- 存在价格转嫁的风险
- 难以获得土地（因不属于公共规划的一部分）



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Standard feasibility requirements 标准可行性要求

Pros优点:

- Standardized assumptions makes it easier to compare project
统一的假设便于项目对比
- Scenarios ensure best projects chosen
场景分析确保选择最佳方案
- Ensure holistic investigations 确保综合性研究
- Can include cost-benefit evaluation 可进行成本收益评估
- Can ensure long-term thinking 促进长期思维

Cons缺点:

- More complicated 过程更复杂
- Require better skills 需要更高的专业技能
- Need for standard assumptions and government guideline
需要标准化假设及政府指南



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Financial set-up 融资模式

Pros 优点

- Low financial costs 低融资成本
- Municipal involvement 市政参与度高
- Easy access to capital 资本获取便利
- Long-term loans (Up to 30 years) 长期贷款（最长30年）

Cons 缺点

- Needs restrictions regarding which investments can be financed (Allowed costs)
需要对可融资的投资范围进行限制（允许成本）
- Can be complicated if combined production (CHP, CHC, etc)
在联合生产（如CHP、CHC）情况下可能更复杂



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Approval system for projects 项目审批制度

Pros优点:

- Ensure renewable and green solutions
确保可再生和绿色解决方案的实施
- Possible to ban e.g. coal
具备禁止如煤炭等高污染能源的可能性

Cons缺点:

- If only few solutions risks of high prices
如果可选方案较少，可能导致价格过高
- May reduce flexibility and integration
可能降低系统的灵活性和一体化程度



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Digitalization数字化

Pros优点:

- Improve optimization 提高系统优化能力
- Improve conservation 促进能源节约
- Reduce costs 降低整体成本
- Improve forecasts – increase income
提高预测精度，从而增加收入

Cons缺点

- Complicated 规划过程复杂
- May not fit to small companies/networks
可能不适用于小型企业或小规模供热网络



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Rationality (Skills) - Standards 合理（技能）-标准化

Pros skilled staff 高素质专业团队的优势

- Vision based management 具备远见的管理能力
- Flexible management 灵活的运营机制
- Early action 提前采取行动以规避风险
- Better contracts 更优质的合同谈判能力
- Better operation/maintenance 运营与维护效率更高
- Better research and development projects 科研及技术开发能力

Cons缺点

- Public costs to ensure skilled staff
政府需要承担公共支出以培养和任用专业人才
- May be costly for Government可能对财政造成一定负担



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Proposals energy planning Prospect- and CETO reports

能源规划政策建议-前景展望报告和CETO报告

- Holistic Energy planning (P1)综合能源规划 (**P1**)
- Local authority zoning for district heating networks in existing urban areas (C4)
- 地方政府在现有城区规划区域供热管网 (**C4**)
 - › Objective of planning – reduce losses and use local sources (C5)
 - › 规划目标：减少热损失，最大化利用本地能源资源 (**C5**)
 - › Give authorities permission to ban unwanted and require efficient solutions (C6)
 - › 政府权限，禁止低效方案并要求采用高效方案 (**C6**)
 - › Avoid duplicated network systems (C7)
 - › 避免重复建设供热管网，优化资源配置 (**C7**)
- Scenario investigation in the planning process (C9)
- 在规划过程中进行情景分析 (**C9**)

Prospective report include recommendations regarding storage and renewable heat sources (Geothermal, Solar, Biomass, Heat pumps, CHP surplus heat and Industrial excess heat)

前景展望报告包含关于储能与可再生热源的建议（如地热、太阳能、生物质能、热泵、热电联产余热及工业余热）



Energy Planning 能源规划

Pros 优点:

- Ensure renewable and green solutions
- 确保可再生能源与绿色解决方案的应用
- Holistic local solutions
- 促进本地化解决方案的实施
- Can ensure integration with other sectors
- 实现跨行业整合（提高系统效率）
- Ensure low price heating
- 提供低成本（高效的）供热方案

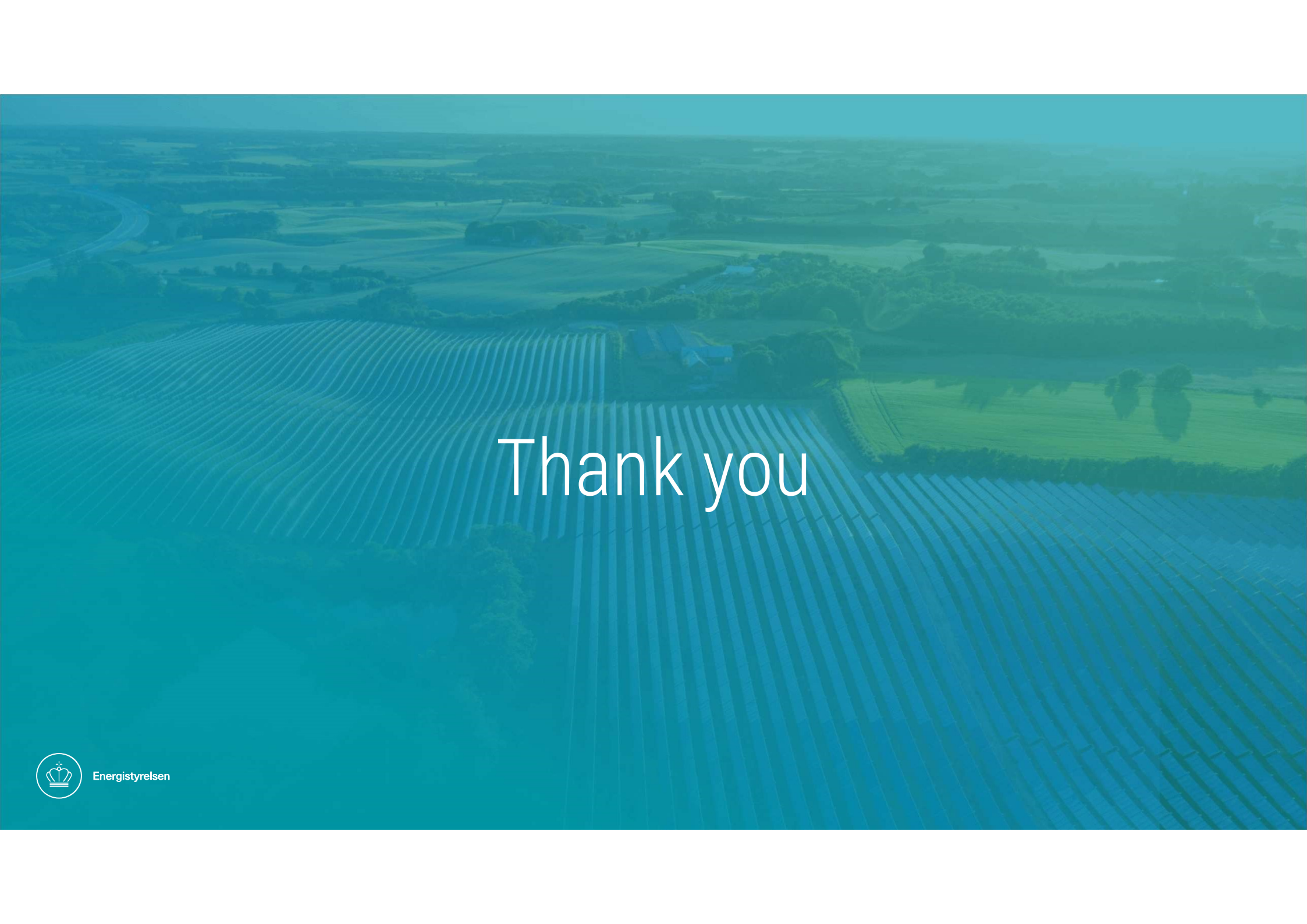
Cons 缺点:

- Requires quality data
- 依赖高质量的数据支持
- Takes time
- 规划与实施需要较长时间



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Thank you



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