

EXPERIENCES FROM AUSTRIA ON THE DEVELOPMENT OF NEEAPS

Austrian Energy Agency / National
Monitoring Body



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LEGAL FRAMEWORK

- **Directive on energy end-use efficiency and energy services (2006)**
 - Indicative target: reduce the final energy demand by **9%** by 2016:
 - to be reached by way of energy services and other energy efficiency improvement measures
 - Scope of the Directive
 - Providers of energy efficiency improvements
 - Energy distributors, distribution system operators
 - Retail energy sales companies
 - Preparation of 3 NEEAPs compulsory:
 - Target setting (interim & final) and overview of strategy to achieve target (measures)
 - Review of effects of measures set & target evaluation

LEGAL FRAMEWORK

- **Energy Efficiency Directive (2012)**
 - National energy efficiency targets up to 2020 for final and primary energy
 - Scope of the Directive:
 - Energy-efficiency in the end-use
 - Energy-efficiency in the energy supply
 - Horizontal requirements

ENERGY EFFICIENCY MONITORING IN AUSTRIA

- Austrian Energy Agency (AEA) assigned by the Federal Ministry of Economy to act as the monitoring body for the implementation of the Energy Services Directive:
- Tasks:
 - Monitor the implementation of the Directive by **involving all relevant stakeholders** in the monitoring process
 - **Develop bottom-up methods and top-down indicators** to measure energy savings
 - **Develop a monitoring system:** online-database to collect and process data on energy-efficiency measures
 - Report on the energy savings achieved / Draft the **National Energy Efficiency Action Plans (NEEAP)**
 - Disseminate information

STAKEHOLDER INVOLVEMENT AND DEVELOPMENT OF BOTTOM-UP METHODS

STAKEHOLDER INVOLVEMENT – PARTICIPATORY FORUM

Purpose:

- **Inform** about the Directive in general and its implementation on national level in particular
- **Involve** all parties (public sector representatives, energy suppliers) affected by the Directive and **ensure a common proceeding** regarding the implementation of the Directive
- **Involve** all parties in the **development of bottom-up methods** (formula, default values) through workshops and small group discussions
- **Ensure the acceptance** of the bottom-up methods and the online database

PARTICIPATION PROCESS



BOTTOM-UP-METHODS

LIST OF MEASURES

- **Building shells (new buildings, refurbishment, building elements)**
 - Residential buildings
 - Non-residential buildings
- **Cooling and air-conditioning**
- **Efficient cars**
- **Energy audits (private households, companies)**
- **Smart Meters in private households**
- **Heating systems**
 - Solar panels
 - Replacement of gas- and oil boilers with condensing boilers in refurbished/non-refurbished buildings
 - Heat pumps
- **Circulating pumps**
- **Household appliances (refrigerator, freezer etc.)**


DEVELOPMENT OF A MONITORING SYSTEM

ONLINE DATABASE (1/3)

- Accessible via www.monitoringstelle.at
- For all measures for which **bottom-up** methods exist
- Open to all **public institutions** and **energy suppliers** the Directive applies for
- Creation of **individual user accounts**
- Data entry:
 - Individually and directly by the user
 - User responsible for the data entered
 - Data saved in the database and kept confidential
- Data evaluation:
 - Verification of the data entered by the AEA (plausibility check)
 - Evaluation according to user, type of measure, region
 - Time series of yearly energy savings (Early Actions, savings valid in 2010/2016)

ONLINE DATABASE (2/3)

DATA GATHERING INTERFACE




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EE-Database
Logout
User data
Help
FAQ
Documentation of methods
Energy audits

Measures and programmes

Blocks of measures and programmes

Savings overview

- Lighting
- Directly measured
- Energy audits
- Energy advice
- District heating
- Buildings
- Cooling and climatisation
- Transport
- Smart Meters
- Space heating and hot water supply
- Heat distribution
- Appliances

User: Heidelinde Adensam
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Installation of solar collectors (d)

Installation of solar collectors (default)


Description *	Solarpanel A Vienna
Year of implementation *	2007
Measure implemented alone	<input checked="" type="checkbox"/>
Measure implemented in region *	Wien
Newly installed standard solar collectors (m2)	1200
Standard solar collectors without bottom up measures (free rides)	0
Mean of yearly energy savings per m2 installed solar collector area (kWh / m2)	538
Rebound effects	1
Spill over effects	1
Uncertainty factor	1
Calculated savings	645.600,0

save
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delete



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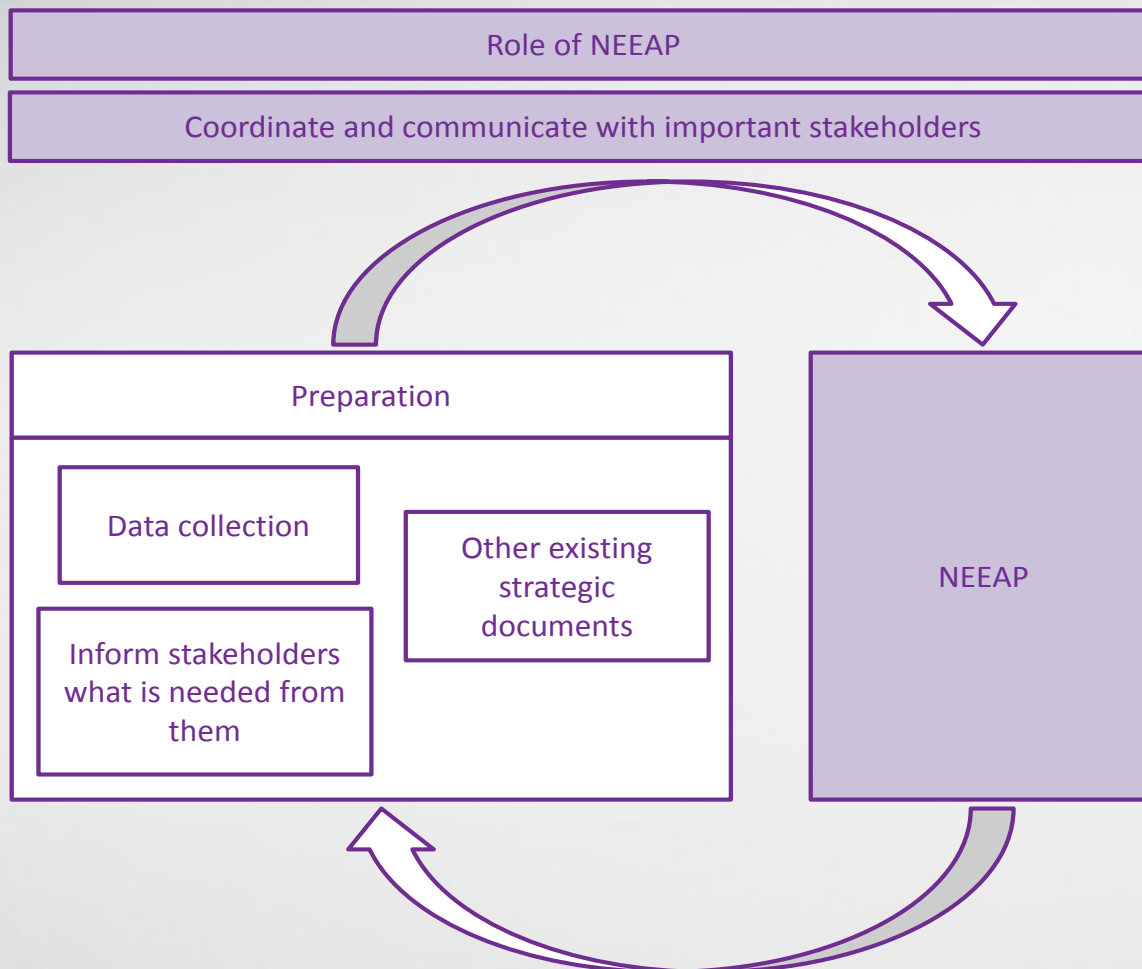


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ONLINE DATABASE (3/3)

- **Experiences from the database-based monitoring approach:**
 - Easy and cost-efficient data collection of energy-efficiency measures
 - Standardized calculation of energy savings
 - Savings achieved are calculated and reported immediately
 - Process for setting up this monitoring system took about 3 years (stakeholder process, development of methods and database)
 - Set up of the database took about 2 years in total

CONCLUSIONS



- Clearly define **function of the NEEAP**
- **Coordinate well** with other authorities and relevant stakeholders
- **Inform** other stakeholders in advance **what is needed**
- **Keep communicating** between the NEEAPs with important stakeholders
- **Link it with all other existing strategies and action plans** in your country

CONCLUSIONS

- Preparation of the NEEAP
 - Important to have a clear understanding of the task and to establish direct communication between those whose input is crucial for the preparation of the NEEAP.
 - Difference between success and failure is often almost synonymous with how preparation has been carried out.
 - Energy efficiency complex field: no single person or even government body is likely to master the entire field → the input of many people is essential for success → vital to establish the structures necessary for smooth cooperation.
- Data collection
 - Missing or inaccurate data is a major obstacle for producing the NEEAP.
 - Reliable data cannot be extracted instantly upon request → constant effort needed to maintain a base of reliable data.
- Role of the NEEAP
 - NEEAP puts a focus on the importance of energy efficiency policies.
 - NEEAP has a “pull effect” on the collection of data and other information.

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