



Schweizer Zentrum für Ökoinventare

Energieträger

A joint initiative of the
ETH domain and Swiss
Federal Offices

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20. Diskussionsforum Ökobilanzen, 19. September 2003
ETH Zürich / Session „Energieträger“

Energy Systems

Introduction

Roberto Dones

Contributions to comparisons: B. Müller, PSI
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Folie 2

Presentation: Roberto Dones



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Structure of Presentations



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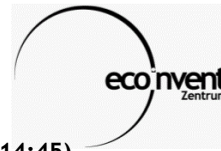
- **Introduction** Organization & Energy chains modelled
Main differences with Ökoinventare 1996.
- **Energy Chains**
- First Presentation** Includes examples of key issues
- Each Presentation** 1) Available Modules: fuels, boilers, power plants
 2) Energy chain structure
 3) Main differences with Ökoinventare 1996
 4) Highlights of methodology/modelling
 5) Selected results of inventory and LCIA.



The speaker may illustrate only some of the elements above and address the rest in the discussion with the public upon request.



Agenda for Presentations



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- First Part "Energieträger, nicht erneuerbar" (13:15 - 14:45)**
 - Roberto Dones Introduction
 - Mireille Faist/Thomas Heck Gas Chain & WKK
 - Niels Jungbluth Oil Chain
 - Roberto Dones Coal and Nuclear Chains
 - Rolf Frischknecht/Mireille Faist Electricity Mixes & Transmission/Distribution
 - *Analysts & The Public* *Question time (14:15 - 14:45)*
- Second Part "Energiesysteme erneuerbar " (15:00 - 16:30)**
 - Roberto Dones Introduction
 - Niels Jungbluth Solar: Photovoltaics & S. Thermal
 - Christian Bauer Hydro, Wind, and Wood
 - Thomas Heck Heat Pumps
 - *Analysts & The Public* *Question time (16:00 - 16:30)*



Organization

- PSI is the responsible Organization for the Energy Systems.
- BfE (Swiss Office of Energy) financially supported the work.
- The technical work has been carried out by:

PSI: Coal, Gas Conversion, Cogeneration,
Nuclear,
Hydro, Wood, Wind, Heat Pumps

ESU-services: Oil, Gas Upstream,
Electricity Mixes & Grids
Solar (Photovoltaic & Thermal)



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Progress from Ökoinventare 1996

- Materials, Chemicals, Transport, and Waste management, which were described by „service modules“ in 1996, have been fully and independently developed by other Organizations within ecoinvent 2000
- Update of key contributions to year 2000 (or around it)
- Extension of palette of modules for some chains, e.g.
Electricity Mixes of CENTREL and NORDEL besides UCTE
Combined Cycle burning natural gas
Wood boilers & cogeneration
- Refinement of Energy Chain modelling,
for Gas, Nuclear, Photovoltaic, Wood (Upstream: EMPA)
- Inclusion of several cogen technologies (Diesel, Natural gas, Wood)
- Consideration of uncertainties



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