



Economic Commission for Europe

RENEWABLES IN ECE REGION
Ad Hoc Group on Electric Power
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Restructuring, Sustainable Energy
and Enterprise Development**



DEFINITIONS FOR RES

- Different definitions among agencies
 - EU: all non-fossil energy sources;
 - IEA: those derived from natural processes and replenished constantly
- RES- E is electricity produced by plants using only RES as well as the proportion of electricity produced from RES in hybrid plants.



POTENTIAL FOR RES IN ECE REGION

1. Great potential for:

- biomass- North America, RF, C+N E
- wind – North America, N+CE, coasts
- Solar ph- higher intensity below 50°

2. Limited potential for:

- Hydropower, in particular large scale
- Geothermal

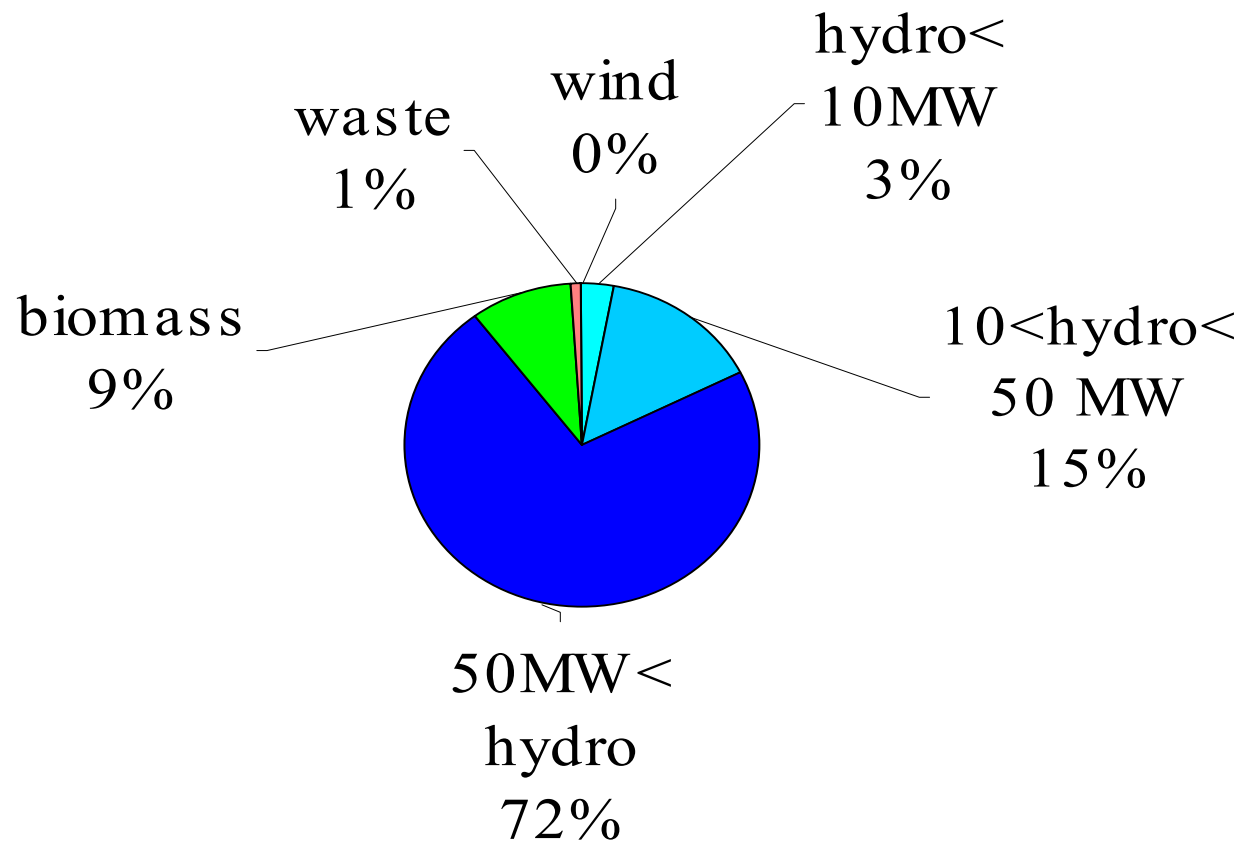


RES-E MARKET GROWTH

- RES-E Market is growing up faster since 1997, with an annual rate of:
 - wind power = 30-35%;
 - solar Ph = 20-25%;
 - solid biomass = 7-10%;
 - windpower installed: 30 GW in ECE; of which 25GW in Europe.



RES-E capacities in 8-selected economies in transition



POLICY SUPPORT TO RES-MARKET (2)

- **Five types of policy instruments used:**
 - **tax exemption or reduction;**
 - **tax refunds;**
 - **investment aid;**
 - **direct price support schemes**
 - **green certificates**
- **100 cases in Europe, 20-25 in biomass**





POLICY SUPPORT TO RES-MARKET (4)

- The Questions to policy making:
- Are present RES-policies compatible with undistorted competitive energy markets?
- Whether with those policies targets would be met?
- Supportive schemes? To all or to most competitive? and for * taking off* or for ever?
- Do countries need harmonized RES policy, in particular to off-grid renewables?
- How RES can benefit from Kyoto mechanisms?

POLICY SUPPORT

EU DIRECTIVE on RES-E

- The Directive: Legal Community Frame on Access for RES-E to the internal market;
- Objective: To promote an increase of RES share to electricity produced in internal market
- The Directive provides for conditions on:
 - how to set national targets and schemes;
 - how to set Guarantee of origin of electricity
 - how to ensure that TSO & DSO guarantee the T & D of RES-E , on their territory.



POLICY SUPPORT EU DIRECTIVE on RES-E

- **The Directive:**
- **should comply with the Directive 96/92/EC concerning common rules for the internal market of electricity;**



TERMS OF REFERENCE (1)

- Having regard to (1) UNECE Declaration to CSD-9; and (2) Kiev Ministerial Conference Conclusions:
- The recommendation is

to complete the Committee's Programme on Sustainable Energy by including RES component in it.



TERMS OF REFERENCE (2)

- Medium Term General Objective:
 - **Contribute to increase the market share of RES in the current energy mix by promoting policies, regulations and market mechanisms, in particular to non-EU accession countries (Eastern Europe, Russian Federation, Caucasus, Central Asia).**
 - **This promotion to be carried out in a balanced way, in respect for and coordination with other Committee`s sub-programmes.**

TERMS OF REFERENCE (3)

- Short Term Objectives:
- to focalize WSSD political commitments into concrete policy action in ECE region;
- to encourage and assist countries in setting up national targets for renewables;
- to ease deployment of RES, both on- and off grid;
- to promote best practices in policy and regulations, including that of EU, to non EU accession countries.
- to increase awareness in RES

