

Accelerating Renewable Energy Deployment in South East Europe



Jeff Skeer
Senior Programme Officer,
Technology Cooperation
IRENA

UNECE
Group of Experts on
Renewable Energy
Geneva, 18 November 2014

International Renewable Energy Agency (IRENA)

Established: April 2011

Mission: Accelerate deployment of renewable energy

Mid-term strategy: Hub, voice and objective information source for renewable energy

Members: 171 countries engaged; 137 ratified members by November 2014

Mandate: Sustainable deployment of the six RE resources
(Biomass, Geothermal, Hydro, Ocean, Solar, Wind)

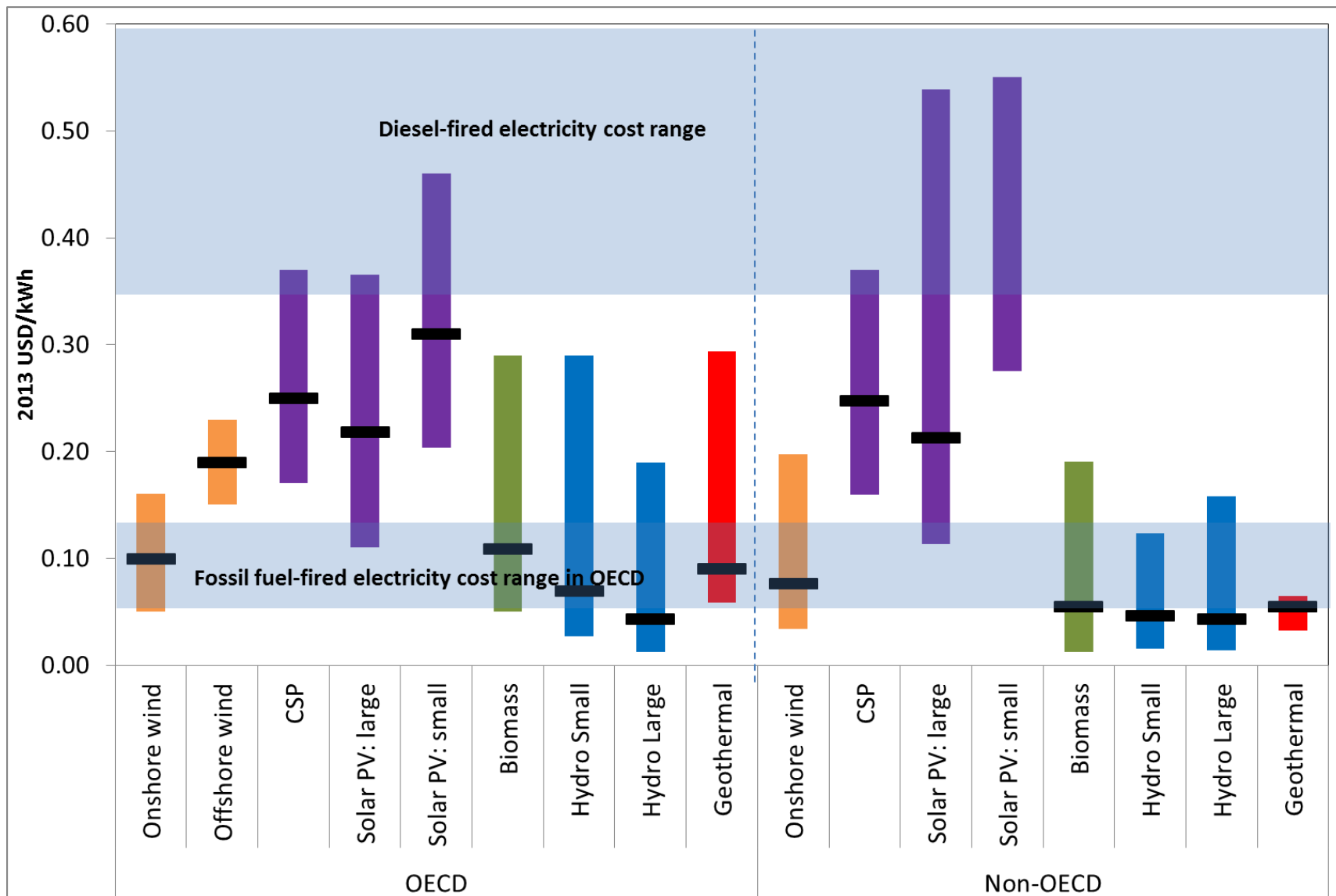
Location: Headquarters in Abu Dhabi, United Arab Emirates
Innovation and Technology Centre - IITC, Bonn, Germany

Director-General: Adnan Amin

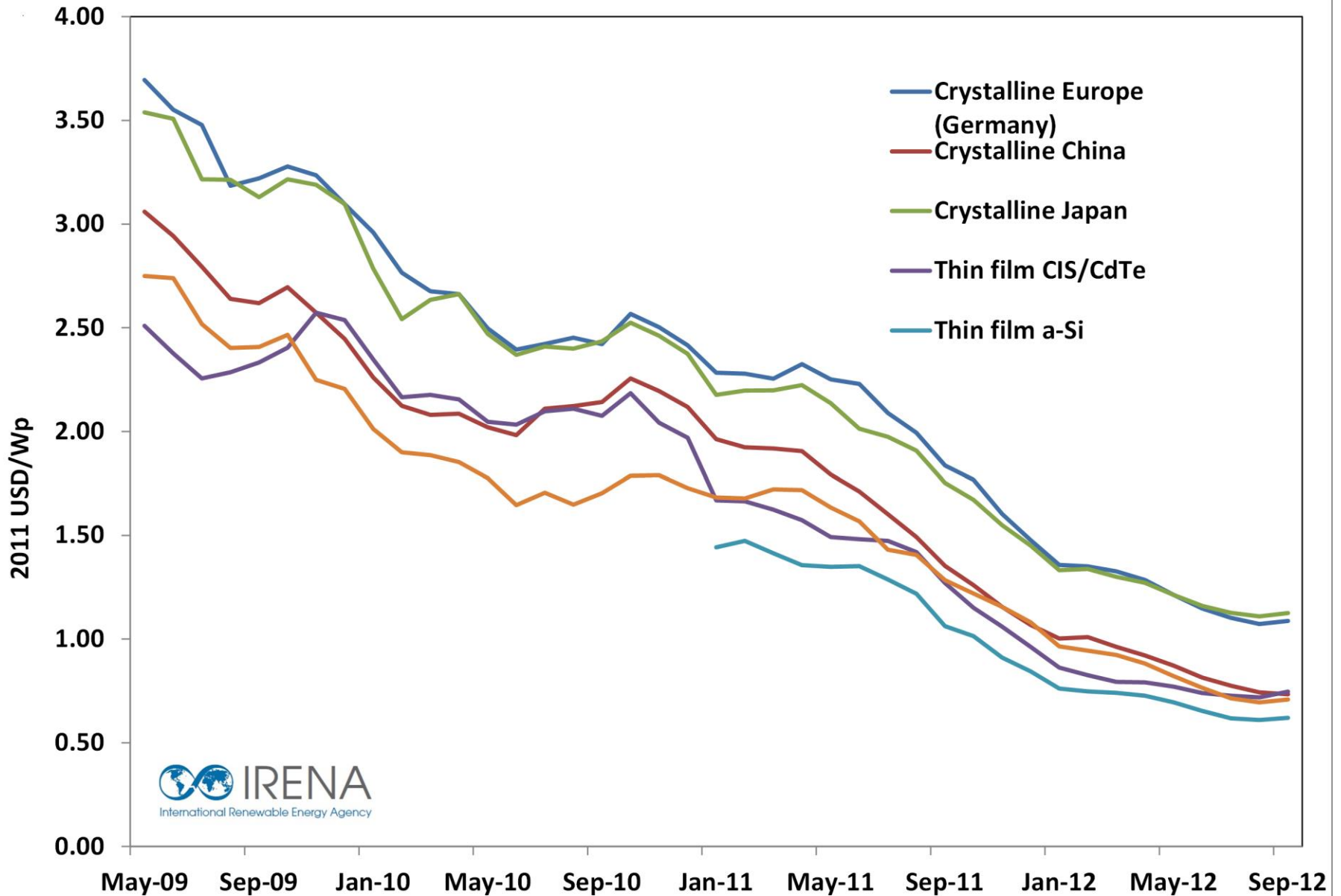
Ways to Accelerate RE

- 1a) Show how **costs** are declining in the power sector
- 1b) Show the abundance of cost-effective **resources**
- 2a) Streamline and harmonize **regulations**
- 2b) Reduce **administrative** barriers
- 3a) Open **markets** to small power producers
- 3b) Ensure cost-reflective **tariffs**
- 4) Expand **transmission** infrastructure
- 5) Build capacities for energy **audits** of buildings
- 6) Develop innovative **financing** options

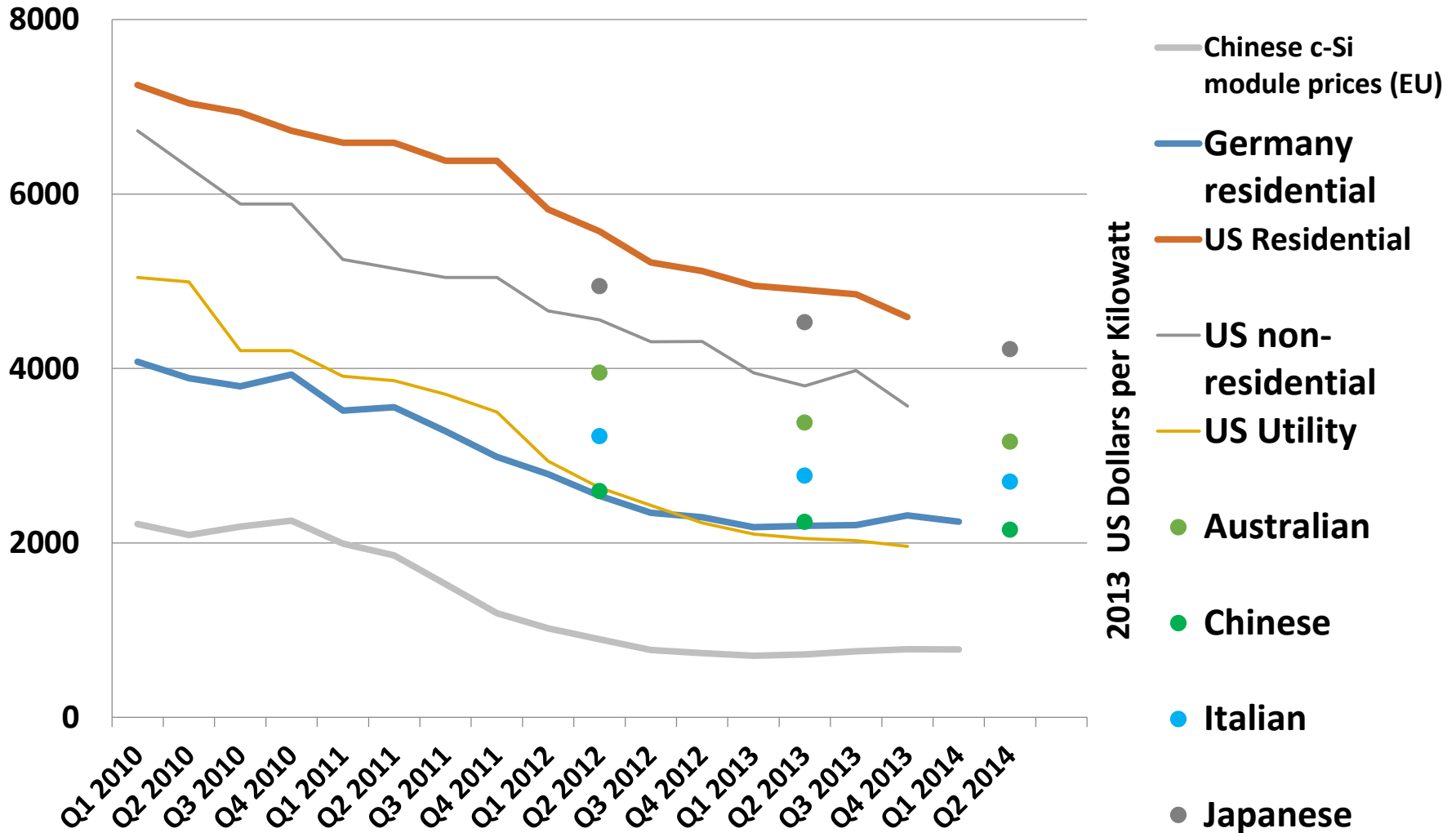
IRENA Costing Alliance: Renewable Power Competing



PV Module Prices 2009-2012



PV Installed Costs 2010-2014



Hydro and Wind Dominate Current RE Action Plans

South East Europe	Δ (GWh) 2009-20	Δ share (%) 2009-20
Electricity Δ (GWh)	42638	100%
Hydro small	4360	10%
Hydro large	19708	46%
Geothermal	379	1%
Solar	2865	7%
Wind	10591	25%
Biomass	4737	11%

Electricity	AL	BH	HR	MK	KO	ME	MO	UA	SR	SI
Total Δ (%)	100	100	100	100	100	100	100	100	100	100
Hydro small	33	2	10	17	44	21	0	2	18	5
Hydro large	61	93	21	56	39	55	5	11	19	52
Geothermal	0	0	3	0	0	0	0	2	0	0
Solar	0	0	3	2	0	1	0	19	0	8
Wind	3	5	33	23	12	18	87	48	32	12
Biomass	3	NA	30	3	4	5	7	17	30	23

Reducing Regulatory and Administrative Barriers

- Regulations complex, opaque, inconsistent.
- Complex authorization procedures for new projects.
- Long costly procedures for transmission rights-of-way.
 - *How can procedures be streamlined?*
 - *Can procedures be organized in parallel?*
- Permits from many uncoordinated institutions.
- Zoning at local, district and national levels.
 - *How can zoning and permits be coordinated?*
- Fragmented land ownership may complicate siting.
 - *How can land ownership be clarified?*

Reducing Market Barriers

- **Need implementing legislation and operational direction.**
- **Need fuller opening to independent power producers.**
- **Need more transmission and distribution capacity.**
- **Need tariffs to reflect full costs of fossil-fueled generation.**
- **Need better framework for ancillary services and balancing.**
- **Unclear cross-border transmission capacity for trade.**
 - **Coordinated Auction Office to be established in Montenegro (for Albania, Croatia, Bosnia and Herzegovina, FYR Macedonia, Greece, Montenegro, Romania, Slovenia, Kosovo* and Turkey).**

Regional Planning to Expand Transmission Infrastructure

- Regional planning could help ensure the transmission infrastructure is in place to provide power at least cost.
 - *How much new transmission capacity is needed to support renewable power development?*
 - *Which key transmission corridors that should be strengthened to accommodate more renewables? .*
 - *What cost savings might be achieved through joint integrated resource planning of generation and transmission facilities at regional level?*
 - *How can countries cooperate to speed approval of investments in high-priority transmission projects?*

Energy Efficiency and Renewable Energy Audits

- Renewables can satisfy a larger share of energy needs if energy is used efficiently – particularly in buildings.
- Key renewable options to consider – where electricity tariffs are high – include solar hot water and rooftop photovoltaics.
- **Audits of cost-effective renewable energy options can be done most efficiently on top of audits of energy efficiency options.**
- **We could cooperate to assess energy auditing capacities:**
 - Are there enough skilled auditors?
 - Are they familiar with the renewable energy options?
 - Could European auditing associations help with training?
- **Energy Service Companies could help finance EE and RE** measures that audits (by themselves or others) find cost-effective.

Expanding Options for Renewable Power Financing

- What criteria do banks and donors have for financing renewable energy investment? What government policies could help power plant investors meet those criteria?
- What are the principal obstacles to obtaining the amounts of investment required? What changes in market structure and regulation might promote needed investment?
- How adequate are existing financial instruments to attract the investment required? What financial instruments have been most successful in attracting renewable investment?
- How much investment in renewables and associated transmission infrastructure might be cost-effective and require financing beyond what is required to implement NREAPs?

Thanks for listening!

