



ASPECTS ON TECHNOLOGY TRANSFER

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IS THERE A NEED FOR TECHNOLOGY TRANSFER?

- Central American countries committed to increase their renewable energy utilisation
- potential in hydro, wind, geothermal, solar, and biomass based energy production
- expertise needs to be localised to secure the long-term operation

WHAT EXPERTISE NEEDS TO BE TRANSFERRED?

design of technical concepts

manufacturing

assembly & erection

financing

operation & maintenance

environment impact assessments

emission trading

power trading

NEED TO HAVE'S/ 1

TECHNICAL CONCEPTS:

- understanding what really is possible and feasible (fuel suitability, maturity of technology, etc.)

ENVIRONMENT AND SOCIAL IMPACT ASSESSMENTS

- reliable only if done with deep understanding of local conditions

NEED TO HAVE'S/ 2

ASSEMBLY AND ERECTION:

- most typical local portion
- future O&M organisation can be trained

O&M:

- has to be local, proper training a must
- remote support from technology owner would enhance local operations' quality

NICE TO HAVE'S/ 1

MANUFACTURING:

- if volumes are big enough, would result in lower prices
- will secure better O&M expertise

POWER TRADING:

- contract issues essential in open markets
- stable and reliable contracts are precondition to get investors

NICE TO HAVE'S/ 2

FINANCING, EMISSION TRADING

- somebody just has to do it; better to use the best available expertise, no matter whether local or imported

DESIGN:

- capability to design local applications independently

WHAT IS REALISTIC TO EXPECT

CASE WINWIND

- committed to work through local partnerships, also in Central America
- minimum: erection, civil works, basic O&M
- targets to: supplies of tower, grid connection, erection, cast iron components, electro technical components
- ready to: assembly and sales through a JV with a local partner

HOW TO GET COMMITMENT

FROM TECHNOLOGY OWNER:

- a clear vision of substantial market potential in the area
- find an active and committed local partner with risk bearing capability (and will)
- local partner to have sufficient technical and commercial skills, to become independent
- clear contracts which both parties are respecting



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