

## Proposed Role in the Project:

1. **Family name:** BOEHNKE
2. **First names:** Heinz-Wolfgang
3. **Date of birth:** 7th May 1953
4. **Nationality:** Germany
5. **Civil status:** Married
6. **Education:**

	Institution [Dates from – Date to]	Degree(s) or Diploma(s) obtained
#Dip 01	Lippe Technology Institute Germany, 1972-1976	Dipl.- Ing. Mechanical Engineering Master`s Degree (MSc) equivalent
#Dip 02	TÜV Nord, 2013	Certified Consultant (TÜV) PV Systems
#Dip 03	Chamber of Industry and Commerce Stade, Hamburg, 1989	Licensed Vocational Trainer, international trade
#Dip 04	Phönix Elektrizitätsgesellschaft, Germany, 1968-1971	Professional Certification

## 7. Language skills: (Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic))

Language	Reading	Speaking	Writing
German		Mother Tongue	
English	1	1	1
French	2	2	3
Spanish	2	3	3
Farsi	4	3	4

8. Membership of professional bodies: International Solar Energy Society / Deutsche Gesellschaft für Sonnenenergie
9. Other skills: IT-administrator. Trainer on RE applications, RE economics; staff development and process consulting.
10. Present position: Senior Energy Consultant, CEO of TECHNOSOL
11. Years within the firm: 30 years with intermissions for international assignments

## 12. Key qualifications:

- **36 years of experience** with advisory in the field of commercial/technical RE application.
- **30 years practice in the design**, economic assessment and development of RE installations
- In depth commercial experience in planning, installing RE power systems:
  - Grid integration projects of various sizes and voltage levels
  - Decentralized grid planning, mini-grids, monovalent and hybrid  
(Demand and load assessment, electrification options and electrification strategy development)
- **18 years of experience in developing countries** on national **energy sector policy analysis and development**.
- **10 years of experience in the Asia Pacific region including remote islands** on energy policy and technical advice, RE business advisory, and capacity development.
- **Strong experience in capacity building, institutional strengthening and training** of public and private sector stakeholders. Created excellent working relationships with political and professional hierarchies, academic partners, private companies and communities.
- Strong track record in project management including **6 years as team leader** of programmes on rural electrification in the Philippines and **7 years** as coordinator for regional capacity building programme in the SADC region; experienced in **managing multinational teams** and experts of different technical backgrounds (both long-term and short-term).
- **7 years** of experience in providing advice to **rural electrification** programs (Philippines, Myanmar, Namibia, PICT) including a variety of financing models.
- **12 years** of experience in **sector-wide approaches**. Donor coordination under WB guidance as a model for the Tonga Energy Road Map, donor matrix with the Energy Master Plan Myanmar, aid effectiveness and output based support with AusAid in Vanuatu. Public Financial Management and budget support in the context of energy sector reform.
- Demonstrated track record of providing technical advice on:
  - **Energy access; rural electrification** design, sustainable implementation, M&E
  - RE policy, strategy and road map including solar energy, hydropower, biomass, wind power
  - **RE feasibility and economic assessments**, quality assurance and standardization, PPP and innovative financing models; RE based income generation, business advisory, development of productive use tools
  - **Budget management and monitoring**, financial assistance agreements including budget support

## 13. Specific experience in Developing/Transition countries:

### Countries of Service relevant to the Project (Date from – Date to)

Afghanistan (1977- 1979, 2010); Philippines (1990 -1996 ), MEKONG: PRC, Thailand, Lao, Cambodia, Vietnam (1999 - 2001); PICT: Vanuatu, Niue, Fiji, Kiribati, Palau (1995 - 2010); Myanmar (2013 - 2015); Tonga (2009 - 2010; 2015); MENA: Tunisia, Jordan, Palestine, Egypt, Algeria, Morocco (2008-2011); SADC: Zimbabwe, Namibia, Zambia, Botswana, South Africa (2000-2007)

#### 14. Professional experience:

Date from – Date to	Location	Company & Reference Person	Position	Description
08/1985 - ongoing	Jork, Germany	TECHNOSOL Heinz-W. Böhnke <a href="mailto:hwb@technosol.de">hwb@technosol.de</a>	Owner, CEO	Overall management (business development, design and installation, HR and financial) for <b>private sector company with a 30 year track record in project consultancy and project development in solar engineering</b> . 1985-2000 focus on international <b>off-grid systems</b> , 2000-2015 mainly <b>on-grid projects</b> totalling more than 120 installations. Company services: Implement FIT-based generation systems, energy efficiency, systems service; design, install and operate, finance, monitor RE delivery models and rural power solutions (on-grid / off-grid); contract commercial grid integration, power management and energy storage technologies; conduct feasibility and profitability studies for RE projects, implement regulations on standards and safety. Planning and implementation of trainings and workshops for RE entrepreneurs. Regional adviser to energy consumer association (BDE), active in promotion and presentation of RE use.
1/2016 – ongoing	Philippines resident	GIZ International Services (for EU)  Florian Seeger <a href="mailto:florian.seeger@giz.de">florian.seeger@giz.de</a>	Team Leader ASEP Access to sustainable energy programme	Institutional Strengthening of the Department of Energy (DoE) through capacity development and renewable energy based electrification to achieve the <b>target of 90% household electrification, particularly in rural and remote unelectrified areas</b> . Energy efficiency and the use of innovative energy solutions are increased. <ul style="list-style-type: none"> <li>• Conduction of a detailed organisational, institutional and <b>staff capacity demand assessment and feasibility studies</b></li> <li>• Support of DoE's policy making, supervision and monitoring and its electrification project management functions</li> <li>• <b>Capacity Development of DoE for evidence-based decision making</b>. Especially, concerning most suited technology for electrification, whereby long term economic and environmental implications are taken into account</li> <li>• Capacity Development of DoE's for disaster resiliency planning and to incorporate sustainable pro-poor focus in rural and remote unelectrified areas</li> <li>• Organization of events such as meetings, events, forums, conferences as well as technical support in sector planning and monitoring</li> <li>• Support DoE in putting into place a <b>comprehensive information, education and communication programme</b></li> <li>• Assist DoE to establish and manage a network on <b>international technologies</b> for electrification for improved managerial decision making</li> <li>• Support to promote RE, and to promote understanding for energy efficiency, and the role of RE in rural electrification.</li> <li>• Support relevant stakeholders to gather knowledge for opportunities to draw on RE technologies for rural electrification and increase their capacity to conduct and/or evaluate feasibility studies for RE technology</li> </ul>
05/2015 - 8/2015	Kingdom of Tonga	AETS (for EU) Contact : Mr. Paula Povalu M'au, <a href="mailto:PaulM@mic.gov.tg">PaulM@mic.gov.tg</a>	Energy Sector Specialist	Technical Assistance for the Energy Sector in Tonga. Assist the CEO of the Ministry of Environment, Energy, Climate Change, Disaster Management, Meteorology, Information & Communications (MEIDECC) in <b>improving energy sector coordination</b> and providing assistance to the <b>EU budget support</b> (Sector Reform Contract) programme. Formulate Action Fiche, <b>indicators for disbursement, Performance Assessment Framework (PAF)</b> . Assist CEO of Energy Department and utility (TPL) in national energy sector coordination, structuring, progress planning and reporting. Facilitate Development Partner cooperation (ADB, WB, JP, NZ, AU) with a view to improving <b>aid effectiveness</b> , contribute to joint activity matrix, and convene consultation meetings. Support TA needs assessment, formulation and conduct.
11/2013 – ongoing	Myanmar	Asian Development Bank ADB  Hyunjung Lee, <a href="mailto:hilee@adb.org">hilee@adb.org</a>	International Renewable Energy Expert	Institutional Strengthening of National Energy Management Committee (NEMC; coordinating body of 7 energy related Ministries) in <b>Energy Policy and Planning. Provided advice on power sector reform</b> , strengthened capacities in RE policy planning, capacity development, RE options assessment. Provided RE component to long-term <b>National Energy Master Plan</b> . Drafted RE Policy, based on assessment, strategy and Road Map, for on-grid and off-grid RE. On rural electrification, developed demand planning and service capacity structure. Advised NEMC on institutional development, legislation and regulation. Conducted national stakeholder consultations with ministries, public and private implementers to support cooperation on solar, hydro, and bioenergy in the framework of the RE action plan. <b>Designed capacity development</b> for RE implementation management, structured training matrix. <b>Designed RE financial incentives</b> for market support strategy to increase private sector participation.
11/2008 – 12/2011	Home-based, with regular missions to six MENA countries	GIZ (for BMZ)  Klaus Knecht, KKnecht-FRB-BER@t-online.de	Coordinator	Energy Partnership with the MENA Region. Regional <b>energy policy coordination</b> with focus on RE policy and application, curriculum development. Assessed capacity development needs on energy policy in higher education, public administration, and private sector. Worked with stakeholders in the education sector in Tunisia, Jordan, Palestine, Egypt, Algeria, and Morocco to strengthen their involvement in <b>energy policy formulation, legislation, and development of regulatory capacity</b> . Organized and facilitated regional workshops on RE training in higher education; including mobilization of short-term expertise. Developed curricula on RE for post-graduate education, prepared training materials and coached trainers. Facilitated creation of and provided coaching to advisory bodies of non-state actors. Technical assistance on regional grid planning and transnational grid management.
04/2010-05/2010	<b>Afghanistan</b>	GIZ (for BMZ) André Möller,	Renewable Energy Specialist	TA to Ministry of Energy and Water on <b>energy sector reform and energy planning</b> , including RE utilization in <b>rural areas</b> . Provided institutional capacity development to RE Department, including organization and implementation of a planning workshop. Planned implementation network for <b>rural</b>

		Andre.moeller@ecoclimate.net		<b>electrification</b> based on hydro-power, wind generation, and PV. Coached department heads on budget planning for hydro, wind, and solar project development, project formulation and funding models.
02/2010 – 04/2010 #Ref_06	Vanuatu	Gov. of Vanuatu (for AusAid), Leo Moli, <a href="mailto:LMoli@vanuatu.com.vu">LMoli@vanuatu.com.vu</a>	Senior Rural Energy program expert	Programme to <b>expand access to power</b> to communities across Vanuatu. Provided <b>high-level policy advice</b> to Ministry of Lands and Natural Resources. <b>Conducted energy sector policy and aid-effectiveness analysis for output-based options assessment of rural electrification</b> . Prepared the <b>work plan for delivering an expanded and sustainable access to energy for rural communities</b> . Advised on institutional structure for rural electrification program.
08/2009 – 04/2010	Kingdom of Tonga	International Renewable Energy Association (IRENA) Hugo Lucas, <a href="mailto:HLucas@irena.org">HLucas@irena.org</a>	Consultant Off-Grid	<b>Development of Tonga Energy Road Map TERM as sustainable electrification model for Pacific Island Countries (PIC)</b> . Conducted an <b>energy demand assessment and developed the electrification strategy for Outer Islands</b> including administrative and regulatory framework, costing implementation, and service. Prepared <b>electrification options assessment</b> , including PV, wind, biomass and marine resources. <b>Developed Outer Island power component of TERM strategy paper</b> , presented to donor community and Government. Participated in planning sessions on <b>energy sector policy reform</b> in PICs, led by the World Bank.
07/2009 – 08/2009	Niue	Gov. of Niue (for EC). <a href="mailto:Speedo.Hetutu@mail.gov.nu">Speedo.Hetutu@mail.gov.nu</a>	Consultant	Technical Assistance to <b>Niue</b> Power Corporation in the framework of EC support to the energy sector. Designed, supplied and supervised installation of PV grid support generation. Organized maintenance, monitoring, and expansion planning. Trained utility managers from 12 <b>Pacific Island Countries</b> in RE design, economics, and evaluation.
10/2000 – 11/2007 (two phases from 2000-2004 and from 2004-2007)	Home-based, with regular missions to SADC countries	CDG Capacity Building (for BMZ, with additional EC funding in the second phase) Klaus Knecht, <a href="mailto:KKnecht-FRB-BER@t-online.de">KKnecht-FRB-BER@t-online.de</a>	Coordinator	Coordinator of <b>Integrated South African Business Advisory Program (INSABA)</b> which provided <b>training, business advisory and policy dialogue interventions</b> in Zimbabwe, Namibia, Zambia, Botswana, and South Africa. First phase focused on RE business advisory and establishment of a regional counterpart structure; second phase focused on <b>productive use models and developing technical/economic appraisal tools</b> . Managed multi-national SME Business advisory on productive use of RE. <b>Advised Ministries of Energy and regulating bodies on RE policy formulation, legislation and regulatory development</b> . Organized exchange visits between political representatives from the SADC region and German industry / ministries. Organized and facilitated ten <b>regional policy round-tables</b> combined with public RE exhibitions. Facilitated <b>Public Private Partnership structures</b> in four countries; identified, trained, and coached industry partners. <b>Developed and applied tools for feasibility assessment and preparation of business plans for bank financing</b> . Identified and appraised 14 business models on income generating RE applications.
06/1999 – 09/2000 #Ref_10	Hamburg, Germany	SunTechnics / Conergy H-M Rüter, CEO <a href="mailto:info@ruetinvest.de">info@ruetinvest.de</a>	Head, International Relations	Developed international corporate market strategy for leading supplier of customized renewable energy solutions. Established branches in Austria, Spain, Togo, and Namibia. Developed corporate <b>off-grid portfolio and service offer relating to island energy systems</b> . Private sector partner in Rural Electrification Program Namibia. Represented the company in international fora. Coordinated policy advisory group. Managed team of 9 international staff members with marketing, technical and strategy backgrounds.
08/1999 – 11/2001	Home-based, with regular missions to Mekong region	InWent Capacity Building International (for BMZ) Klaus Knecht <a href="mailto:KKnecht-FRB-BER@t-online.de">KKnecht-FRB-BER@t-online.de</a>	Coordinator and lecturer	In the capacity building program Council on Renewable Energy in the Mekong Region (CORE), provided <b>policy and technical advice to the Ministries of Energy, Science, Education in PRC, Thailand, Lao PDR, Cambodia, and Vietnam on energy sector reform, renewable energy policy and legal framework development</b> . Established regional exchange with national energy departments, RE institutions, and universities. Coached private sector stakeholders on marketing and quality control. <b>Established and supported regional consultative bodies</b> on RE promotion and implementation. Mobilized short-term trainers and organized regional workshops on RE. Prepared training documentation and lectured on project development, feasibility assessment, cycle management. Assessed <b>Cambodia Rural Electrification projects</b> on pico hydro, PV, small wind generation.
01/1991 – 06/1996	Manila, Philippines resident	GIZ (for BMZ) Dr. Rolf.Posorski, <a href="mailto:rolf.posorski@gmx.de">rolf.posorski@gmx.de</a>	Team leader Special Energy Program	Overall management of the <b>Special Energy Program (SEP)</b> , supporting the <b>Philippine National Rural Electrification Program</b> with Department of Energy (DoE), National Electrification Administration (NEA), Electric Cooperatives (ECs), private sector, financing institutions, and the donor community. Management of permanent staff (technical experts, economist, public private partnership specialist), mobilization of short-term experts (technical experts, M&E, capacity development), national consultants for the realization of studies, certification and monitoring. Supported development and implementation of <b>national RE programme using Photovoltaic (PV) and mini-hydro systems (“Rural Photovoltaic Electrification” strategy)</b> . Managed pilot activities showcasing various technology applications – centralized plant, Battery Charging Stations, Solar Home Systems, lanterns and streetlights. Developed PV projects with <b>selected rural ECs in focal areas Luzon, Visayas, and Mindanao</b> ; provided training on installation, operation and maintenance. Developed an integrated financing concept based on risk-sharing between financiers, ECs and manufacturers. Developed system standards for PV, pre-feasibility procedures for hydro power projects. With DOE, created the public private partnership initiative “ProSolar” supporting rural project development through commercial Energy Service Corporations. Supported <b>multi-stakeholder dialogue</b> with administration, banks, suppliers, ECs. Facilitated international exposure of national RE actors.
04/1977-05/1979	<b>Afghanistan</b> resident	UNDP Arthur N. Holcombe	UNV	Streamline National Cartographic Institute's central transport unit; train workshop management/staff in logistics, maintenance and repair, workshop and warehouse organization.

#### 15. Other relevant information:

List of publications upon request.