CURRICULUM VITAE

1. Family name: Landberg

2. First names: Håkan Vincent

3. Date of birth: 26 Nov, 1954

4. Nationality: Swedish

5. Civil status: Married

6. Education:

| Institution | Chalmers University of Technology, Gothenburg |
|---|---|
| | Sweden |
| Date: from (month/year) to (month/year) | 08/73 - 06/75, 08/77 - 12/79 |
| Degree(s) or Diploma(s) obtained: | Master of Science in Chemical Engineering |
| Specialisation | Process and utility engineering |

7. Language skills: (1-beginner to 5-fluent)

| Language | Reading | Speaking | Writing |
|----------------------|---------|----------|---------|
| Swedish, native tong | 5 | 5 | 5 |
| English | 5 | 5 | 5 |
| French | 4 | 3 | 2 |
| German | 3 | 2 | 1 |
| Italian | 2 | 1 | 1 |
| Serbian | 2 | 2 | 1 |

8. Membership of professional bodies: Swedish association of graduated Engineers, CF

(Civilingenjörsförbundet)

9. Other skills: Professional software developer

10. Present position: Owner and manager of Bikan AB

11. Years within the firm: 25

12. Key qualifications: Long and extensive experience from the energy

sector, mostly in key positions.

Experience in organisational development and

governance of energy companies.

Technical specialist in heat only and co-generation

plants, large heat pumps for heating and cooling

and chillers for district cooling.

Extensive experience from planning and evaluation of district heating (including co-generations) and

cooling systems.

13. Professional Experience Record:

| Date: | Location: | Company: | Position: | Description: |
|-------------|-----------------------|---------------------------------------|--------------------|---|
| 1980 - 1982 | Gothenburg, | Swedyards | Project | Off-shore methanol distillation research- and |
| | Sweden | Development | Manager | pilot plant project. Results presented at the |
| | | Corporation | | AIChE Spring Meeting, 1982 |
| 1982 - 1984 | Gothenburg, | Götaverken | Project | Large heat-pump plants. Responsible for sales, |
| | Sweden | Energy AB | Manager | delivery (design, purchasing, erection and |
| | | | | commissioning) as well as guarantees. |
| 1984 - 1985 | Gothenburg, | Götaverken | Manager | Heat-pump division, Design Department |
| | Sweden | Energy AB | | |
| 1985 - | Sweden | Bikan AB | Owner | Responsible for the development of computer |
| | | | and | software e.g. for documentation of PLC- |
| | | | Manager | programmes, systems for maintenance planning and control, simulation of district heating grids for planning purposes as well as for optimisa- tion of operation and production reports. |
| | | | | Consultant to Swedish companies and Swedish utility operators. Specialist in large heat pumps and chillers for district cooling and planning and evaluation of district heating (including cogenerations) and cooling systems and plants. |
| | | | | Inspector and arbitrator for contracts on new and rebuilt boilers, heat pumps, co-generation and district cooling plants and installations. |
| | | | | Extensive training for Swedish and European utility operators including management, operation- and service personnel. |
| | | | | Project manager for SCADA system for large district heating net. |
| | | | | Project appraisal, several projects proposed to the Swedish foreign ministry, project export secretariat as well as for private investors and companies. |
| 1986 - | Gothenburg, Sweden | Bikan AB for Göteborg Energi AB | Project manager | Various planning projects investigating and evaluating future (short- and log-term) generation and distribution alternatives. |
| | | | | Consultant to Assienda Energetica de Milano on large heat-pump plants (technical specifications, prequalification, bid evaluation etc). |
| | | | | Reinstrumentation and new controls for large heat pumps, district heating and sewage-water systems. |
| | | | | Variable speed-drive installation in large district-heating pump-station. |
| | | | | Refrigerant conversion and compressor retrofit of the Rya Heat-Pump plant as well as district heating piping alterations and new sewage water pump station. |
| | | | | Technical coordinator and a member of the contract negotiation core team for Gothenburg Energy's 200 million Euro power plant project, now being built. |

| Date: | Location: | Company: | Position: | Description: |
|------------|-----------|---------------------------------------|-----------|---|
| 1996 - 200 | <u> </u> | Bikan AB for | Project | Team leader Luiblin Energy, Poland. |
| | Sweden | Gothenburg Energy International | manager | Preliminary engineering, environmental study and feasibility study for gas turbine / heat pump plant of 125 MW for Lublin, Poland. |
| | | Corp | | Team member Lviv, Ukraine team. Work included e.g. preparation of tender documents feasibility studies and investment evaluation. |
| | | | | Team leader to Beogradske elektrane, Serbia. Feasibility Study for the Reconstruction of the District Heating System in Belgrade including; Evaluation of institutional and organizational issues; Proposals for tariffs and contracts; Proposals for organizational changes and operational improvement; Preparation of rehabilitation programs up to the amount of 135 MEUR; Technical and financial evaluation of sub-projects |
| | | | | Team leader to Beogradske elektrane, Serbia. Technical and financial evaluation and assessments of Gas Turbine CHP-Plant, Belgrade, for district heating including test runs. Proposals for overhaul and rehabilitation measures as well as measures to convert the gas turbine units to natural gas firing as well as proposals for alternative new units including cost estimates for the above |
| | | | | Team leader to Kaunas Energy, Lituania. Contract proposals for the purchase of heat supplied from a CHP plant and for operation and maintenance of said plant. Financial analysis and preparation of business plan for the restructured company. Demonstration installations in energy meter reading systems. |
| | | | | Team leader for 40 man consultant team to Beogradske elektrane, Serbia. Programme for reconstruction of the district heating system in Belgrade including strategic planning for and restructuring of the company, a 50 MEUR investment program financed by EBRD loan and the City of Belgrade as well as demonstration projects financed by Swedish grants |
| | | | | Team leader for support to AEM, Milan to development of new low emission concepts for co- and tri- generation plants for central Europe, the first of which is now being built in Italy. |
| | | | | Team leader for Training of Board of Trustees and City officials, DH company Belgrade, Serbia (financed by Swedish grants) |

| Date: | Location: | Company: | Position: | Description: |
|-----------|-----------------------|---|--|---|
| 2008 - 09 | Gothenburg, Sweden | Bikan AB for Gothenburg Oil Harbour | Project manager/ Senior advisor | Project manager for new- and re-investments in pipe systems Development of financial model of on-shore infrastructure for investment evaluation and tariff settings. Support in identification of bottlenecks in harbour and on-shore infrastructure. |
| 2008 – | Helsingborg Sweden | Bikan AB for Öresundskraft | Assistant Project Director | Project management for new waste to energy co-generation plant. Total investment MEUR 200. |

14: Publications:

Process and utility engineering. Result of thesis work published in Chemical Engineering Journal, 21 (1981)

Off-shore methanol distillation research – and pilot plant project. Results presented in proceedings from AIChE Spring Meeting 1982

A New Way of Heat Production in Poland. Presentation at PowerGen Europe, 1996

"Heat Pump Theory in Practical Applications", 4th edition, Bikan AB 1999

Experiences from Heat Pumps and Chillers in District Heating and District Cooling in Sweden, paper presented at FRY HVAC conference, Belgrade, 2001

The role of heat pumps in a modern energy system, paper presented at HVAC conference, Belgrade, 2003

Revitalization and reconstruction of district heating systems in countries in transition – example of Belgrade, Paper presented at Energy conference, Temisuara, 2004

Retro commissioning of district heating—example of Belgrade, Paper presented at REVA conference "Energy in buildings", Vilnius, 2004

A New Way to Build Substations, paper presented at HVAC conference, Belgrade, 2004

Sustainable heat suply, paper presented at HVAC conference, Belgrade, 2005

Application of Heat Pumps and Chillers in District Heating and District Cooling systems in Italy, paper presented at conference "Energia e Ambuiente", Milan 2006

The Belgrade District Heating Rehabilitation Programme – Technical components and – Corporate development components, two papers presented at HVAC conference, Belgrade, 2007

15: Contact data:

hl@bikan.se www.bikan.se

BIKAN AB Tel: +46 522 220 25 Po Box 92 Mobile: +46 708 220 250 SE-459 22 LJUNGSKILE Fax: +46 522 223 46 SWEDEN